



APPENDIX A. ADOPTION RESOLUTIONS

The Monroe 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 Section 8 (Planning Partnership) for additional information on plan adoption procedures.

This appendix also includes an example resolution to be submitted by Monroe County and participating jurisdictions authorizing adoption of the 2023 Monroe County Hazard Mitigation Plan Update.

DRAFT



Sample Resolution

(LOCAL GOVERNMENT, INCLUDING SPECIAL DISTRICTS), (STATE)

RESOLUTION NO. _____

A RESOLUTION OF THE (LOCAL GOVERNMENT) ADOPTING THE 2023 Monroe 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 (title and date of mitigation plan) in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS (title and date of 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 (title and date of mitigation plan).

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

Section 1. In accordance with (local rule for adopting resolutions), the (local governing body) adopts the (title and date of 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 2023 Monroe County Hazard Mitigation Plan Update.

DRAFT



**MONROE COUNTY HAZARD MITIGATION PLAN UPDATE
STEERING COMMITTEE MEETING – AGENDA
MEETING DATE/TIME: August 9, 2022 – 3:00 pm**



Virtual Meeting

- Welcome and Introductions
- In-Kind Tracking
- Hazard Mitigation Plan Context
- Project Organization
- Hazard Mitigation Planning Overview
- Schedule
- Project Organization
- Steering Committee Responsibilities
 - Review Steering Committee Guidelines
- Critical Facilities/Lifelines
- Plans and Reports
- Risk Assessment
- Hazards of Concern Exercise
- Public and Stakeholder Outreach
- Goals and Objectives
 - Goals and Objectives Exercise
- CRS Integration
- Conclusion and Next Steps



Monroe County
Hazard Mitigation Plan Update
Steering Committee Kick-Off Meeting | August 9, 2022



TETRA TECH

1

Agenda

- Welcome and Introductions
- In-Kind Tracking
- Hazard Mitigation Plan Context
- Project Organization
- Hazard Mitigation Planning Overview
- Schedule
- Project Organization
- Steering Committee Responsibilities
- Critical Facilities/Lifelines
- Plans and Reports
- Risk Assessment
- Public and Stakeholder Outreach
- Goals and Objectives
- CRS Integration
- Conclusion and Next Steps

TETRA TECH

2



Introduction

- Opening Remarks
 - Monroe County
 - Roll Call
 - NYSDHSES
 - FEMA



TETRA TECH

3

In-Kind Tracking- FEMA Grant Requirement

Monroe County HMP In-Kind Tracking

In-Kind Tracker

Monroe County received FEMA funding to update the Hazard Mitigation Plan (HMP). To meet the required match, the County will use in-kind services.

Please use this form to document your time spent working on the HMP. This includes attending meeting, conference calls, working on your municipal annex, reviewing sections of the plan, etc.

If you have any questions, please reach out to Chris Huch (chris.huch@tetratech.com | 973.830.8367).

• Name

• Jurisdiction

TETRA TECH

4



Hazard Mitigation – What is it?

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

-OR-

Any action taken to reduce future disaster losses

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



TETRA TECH

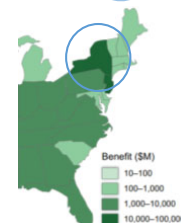
5

Hazard Mitigation Works!

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

	National Benefit-Cost Ratio Per Peril <small>(High confidence in this study from FEMA research)</small>	Federally Funded
Riverine Flood	7:1	7:1
Hurricane Surge	7:1	Too few events
Wind	5:1	5:1
Earthquake	3:1	3:1
Wildland-Urban Interface Fire	3:1	3:1

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



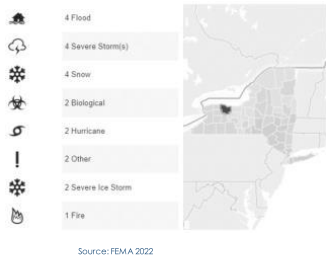
TETRA TECH

6



Hazard Mitigation – What’s at Risk?

FEMA Disaster Declaration history in Monroe County
21 disasters since 1953



TETRA TECH

7

7

Hazard Mitigation – What’s at Risk?

Year of Declaration Date	Declaration Title	Disaster Number
1972	TROPICAL STORM AGNES	339
1973	HIGH WINDS, WAVE ACTION & FLOODING	367
1974	FLOODING (NY'S BARGE CANAL)	3004
1979	ICE STORMS/SEVERE STORMS & FLOODING	491
1991	SEVERE WINTER STORM	898
1993	SEVERE HILLZARD	3187
1998	NY - SEVERE IOL SEPT 7, 1998	1244
	SEVERE STORMS AND FLOODING	1196
		1223
1999	SNOW	3138
2000	WEAT NLE VIRUS	3155
2001	FIRES AND EXPLOSIONS	1391
2003	ICE STORM	1467
	POWER OUTAGE	3186
2004	SEVERE STORMS AND FLOODING	1534
		1534
2005	HURRICANE KATRINA EVACUATION	3262
2012	HURRICANE SANDY	2851
2017	FLOODING	4348
2020	COVID-19	3434
	COVID-19 PANDEMIC	4480

TETRA TECH

8

8

Key Components to Hazard Mitigation



TETRA TECH

9

9

Monroe County and DMA 2000

- The Mitigation Plan Update will:
 - Help the County and all jurisdictions prepare for and mitigate the effects of disasters
 - Continue to allow the County and all participating jurisdictions to be eligible for pre- and post-disaster mitigation funding
 - Support CRS participation/rating of municipalities

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

TETRA TECH

10

10

Requirements for Local HMP Updates

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

TETRA TECH

11

11

NYS DHSES Requirements

- Establish Jurisdictional Teams (*aka mitigation planning team*)
- Assess Critical Facilities
- Plan for Displaced Residents
- Plan for Evacuation and Sheltering
- Document Past Mitigation Requirements
- Include Jurisdictional Annexes
- Develop Mitigation Actions (at least 2 Action Worksheets)
- Plan for Climate Change



TETRA TECH

12

12

What are we focusing on?

- Clearer communication of risk
- Stronger connection between the risk assessment and mitigation strategy
- Integration of plan into county and municipal plans, policies, procedures and decision-making



Monroe County's HMP Update Planning Process



TETRA TECH

13

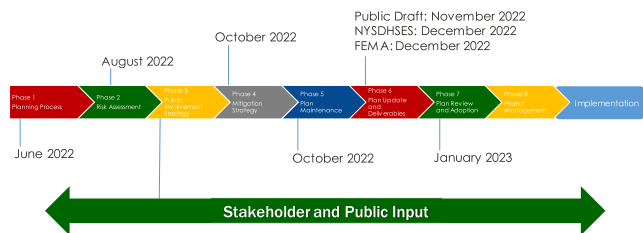
13

TETRA TECH

14

14

Planning Process Overview



TETRA TECH

15

15

Schedule



- **Planning Process**
 - Steering Committee Kick-Off – TODAY!
 - Planning Partnership Kick-Off – August 10, 2022
 - Currently working on reviewing plans, studies, and codes/ordinances
- **Update Risk Assessment**
 - Confirm hazards of concern and begin vulnerability assessment for each
 - Risk Assessment Meeting – September 2022
- **Public Involvement Strategy** – ongoing throughout the planning process
- **Mitigation Strategy**
 - Begin working with the municipalities after the Planning Partnership kick-off
 - Mitigation Strategy Workshop with FEMA and NYS DHSES – October 2022
- **Draft Plan to Steering Committee** by middle of fall
- **Final draft plan** to NYS DHSES and FEMA - December 2022

TETRA TECH

16

16

Project Organization



TETRA TECH

17

17

Steering Committee Roles and Responsibilities



TETRA TECH

18

18

Letters of Intent to Participate (LOIP)

- Letters of Intent to Participate are required from each municipality
- The LOIP outlines expectations and responsibilities for participating jurisdictions and identifies points of contact
- County has distributed the letter with LOIP template to municipal contacts



TETRA TECH

19

19

Critical Facilities and Lifelines

- Review 2017 CF inventory to ensure complete
- Crosswalk and identify lifelines

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

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



TETRA TECH

20

20

Lifeline Components

- | | | |
|---|---|--|
| <p>1. Safety and Security</p> <ul style="list-style-type: none"> • Law Enforcement/Security • Fire Service • Search and Rescue • Government Service • Community Safety <p>2. Food, Water, Shelter</p> <ul style="list-style-type: none"> • Food • Water • Shelter • Agriculture <p>3. Health and Medical</p> <ul style="list-style-type: none"> • Medical Care • Public Health • Patient Movement • Medical Supply Chain • Fatality Management | <p>4. Energy</p> <ul style="list-style-type: none"> • Power Grid • Fuel <p>5. Communications</p> <ul style="list-style-type: none"> • Infrastructure • Responder Communications • Alerts, Warnings, and Messages • Finance • 911 and Dispatch <p>6. Transportation</p> <ul style="list-style-type: none"> • Highway/Roadway/Motor Vehicle • Mass Transit • Railway • Aviation • Maritime | <p>7. Hazardous Material</p> <ul style="list-style-type: none"> • Facilities • HAZMAT, Pollutants, Contaminants |
|---|---|--|

TETRA TECH

21

21

Relevant Plans and Studies

- What recent plans (since 2017) have been developed or are in development by the County or other agencies that should be reviewed for information on hazards and potential hazard mitigation projects?
 - Plan Forward
 - Active Transportation Plan
 - Climate Action Plan
 - Etc.



TETRA TECH

22

22

Update Risk Assessment

- Update assets
- Examine previous impacts
- Analyze risks
- Review with Steering Committee
- Risk assessment meeting



TETRA TECH

23

23

2017 Hazards of Concern

- | | |
|---|--|
| <ul style="list-style-type: none"> • Drought • Earthquake • Extreme Temperatures • Flood • Infestation and Invasive Species • Landslide • Severe Storm | <ul style="list-style-type: none"> • Severe Winter Storm • Wildfire • Civil Unrest • Hazardous Materials • Terrorism • Utility Failure |
|---|--|



TETRA TECH

24

24

EXERCISE – Identifying Hazards of Concern

In review...

- Have additional hazards impacted the County since 2017 that would warrant a new hazard profile?
 - Disease Outbreak/Pandemic?
- Have hazard been mitigated and no longer cause damage?
- Should hazards be regrouped to align with the 2019 State HMP?
- Should cascading impact hazards be removed?
 - Utility Failure
- Should non-natural hazards addressed by other planning initiatives be removed?
 - Civil Unrest
 - Terrorism

Hazard Name	Hazard Category	Has the Hazard Category or Number of the Hazard Changed?		2017 Hazard Status	2022 Hazard Status
		Yes	No		
Avian Influenza	-	Not included			
Chemical Releases	-	Not included			
Cold Wave	Unknown	Known			
Drought	Low	Low			
Earthquake	Unknown	Earthquake			
Firestorm	High	High			
Heat	-	Severe Heat			
High Winds	Unknown	High Winds			
Ice Storm	Unknown	Severe Snow			
Low Stream	High	Severe Snow			
Landslide	Low	Landslide			
Oil Spill	-	Severe Snow			
Sea Level Rise	Unknown	Severe Snow			
Tsunami	Unknown	Severe Snow			
Water Pollution	-	Not included			
Wildfire	Low	Wildfire			



Public and Stakeholder Outreach

- Developed the HMP website to provide information and updates- <https://www.monroecountynyhmp.com/>
- Social Media
- Stakeholder Survey
- Public Survey
- Neighboring County Outreach
 - Notified of planning process
 - Survey



Goals, and Objectives

According to CFR 201.6(c)(3)(i): "The hazard mitigation strategy shall include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards."

Goal	Objective
Goal 1: Coordinate hazard mitigation programs that affect the County.	1.1: Develop and maintain multi-jurisdictional coordination efforts related to hazard mitigation. 1.2: Develop and maintain partnerships with external federal, state, municipal, and stakeholder agencies that have a role in hazard mitigation. 1.3: Track and/or recommend local, county, state, and federal legislation and regulations related to hazard mitigation.
Goal 2: Prevent hazards from impacting life, property, and the environment.	2.1: Develop and maintain local regulations that reduce vulnerability to hazards. 2.2: Develop and maintain local plans that reduce vulnerability to hazards. 2.3: Improve the county's stormwater management systems.
Goal 3: Protect life, property, and the environment from hazard impacts.	3.1: Encourage homeowners, renters, and businesses to insure their properties against all hazards, including flood coverage under the National Flood Insurance Program (NFIP). 3.2: Acquire, relocate, elevate, and/or retrofit existing structures located in hazard areas. 3.3: Acquire, relocate, elevate, and/or retrofit repetitive loss properties from flood-prone areas. 3.4: Encourage local participation in the Community Rating System (CRS) Program. 3.5: Maintain emergency response capability.



Goals, and Objectives

According to CFR 201.6(c)(3)(i): "The hazard mitigation strategy shall include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards."

Goal	Objective
Goal 4: Increase public awareness of hazards, their impacts, and ways to reduce vulnerability.	4.1: Improve public alert, warning, and communications systems by promoting redundant and multi-faceted communications methods. 4.2: Conduct a coordinated public information program related to hazards and their impacts throughout the county. 4.3: Encourage residents to implement hazard mitigation and preparedness measures on their properties.
Goal 5: Protect, preserve, and restore the functions of natural systems.	5.1: Encourage the use of green and natural infrastructure. 5.2: Coordinate with local, county, state, federal, international, and other stakeholder agencies to maintain natural systems, including wetlands, parks, and riverine and coastal areas.
NEW Goal 6: Address Long-Term Vulnerabilities from High Hazard Dams	6.1: Ensure dam infrastructure is maintained 6.2: Ensure Emergency Action Plans are developed and updated 6.3: Support the identification and access to funding to repair/replace dams



CRS Integration

- Hazard mitigation plans qualify for CRS points as "Floodplain Management Plans" through Activity 510
- To achieve a Class 4, specific outreach requirements in Activity 510 must be met
- Tetra Tech will structure and document meetings to meet prerequisites for CRS Class 4 and achieve as many points as possible through Activity 510. We will also work with the communities to help them throughout the process.
- Communities still need to meet the other Class 4 prerequisites (e.g. watershed management plan, Activity 610) and present documentation of participation during individual verifications to meet Class 4
- All meetings must be open to the public
- All meetings must be documented on the County's website

Meeting Name	CRS Step
Informed Kick-Off with N/CEM	-
Steering Committee Kick-Off	-
Stakeholder Engagement Kick-Off	-
Public Kick-Off	Step 2 - held in a flood-prone area within 2 months
Risk Assessment Presentation and SWOOP	Step 4 - Assess the Hazard
SC Meeting #2 - Goals and Objectives	Step 5 - Set Goals
Mitigation Strategy Workshop	Step 7 - Review possible activities
Plan Review Meeting	Step 8 - Draft an action plan



Schedule

- Planning Process**
 - Steering Committee Kick-Off - TODAY!
 - Planning Partnership Kick-Off - August 10, 2022
 - Currently working on reviewing plans, studies, and codes/ordinances
- Public Involvement Strategy - ongoing throughout the planning process**
- Mitigation Strategy**
 - Data collection is underway
 - Confirm hazards of concern and begin vulnerability assessment for each
- Draft Plan to Steering Committee by middle of fall**
 - Mitigation Strategy Workshop with FEMA and NYS DHSES - October 2022
- Final draft plan to NYS DHSES and FEMA - December 2022**



Steering Committee Next Steps

- Planning Partnership Kick-Off (Steering Committee and Municipalities) – August 10th
- Return worksheet to update Goals
- Return worksheet to update Hazards of Concern
- Start tracking In-Kind hours via online survey – to be distributed via email
- Confirm access to OneDrive – access to be provided in separate email
- Steering Committee Risk Assessment Meeting – September 2022
- Risk Assessment Meeting – September 2022
- Mitigation Strategy Workshop – October 2022
- Review Draft Plan



31



32



33



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



Purpose of Meeting:	Steering Committee meeting
Location of Meeting:	Teleconference Zoom Meeting
Date of Meeting:	August 9, 2022 3:00 – 4:00 pm

Attendees:

- Timothy Henry, Deputy Director of Public Safety & Emergency Management, Monroe County
- Matthew Jarrett, Monroe County Office of Emergency Management
- Elisabeth Clower, Monroe County Office of Emergency Management
- Zach Laffin, Monroe County Office of Emergency Management
- Chris Huch, Tetra Tech, Project Manager
- Erika Corsi, Tetra Tech, Planner
- Karen St. Aubin, Director, Bureau of Operations, City of Rochester
- Bill Carpenter, CEO, RGRTA
- Casey Kosiorek, Superintendent Town of Hilton School District
- Chuck DiSalvo, Emergency Planner, MCC
- Jenn VanHouter – Monroe County, GIS
- Steve Schultz, Town Supervisor, Town of Henrietta
- Clement Chung- Deputy Director, Department of Environmental Services, Monroe County
- Kelly Emerick – Director of Soil and Water, Monroe County
- Erin Magee, Commissioner of Public Works, Town of Irondequoit

Agenda Summary:

Item No.	Description	Action item(s):
1	<p>Welcome</p> <ul style="list-style-type: none"> • Meeting started at 3:00 pm 	
2	<p>HMP Update</p> <ul style="list-style-type: none"> • In- Kind Tracking –fill out tracker whenever work is being done on planning process. With hours and task • 3 components in natural hazard mitigation planning – eligibility, developing toolbox, collaborate and gather support • FEMA new standards go into effect April 2023 – will be using new standards for update process – 2023 requirements • Updated risk assessment – overview of hazards, vulnerability analysis, multi-jurisdictions – risk assessment will be done at County level but will be specific to each Town, City, Village • Update mitigation strategy • NYS Requirements – establish jurisdictional teams, assess critical facilities, plan for displaced residents, plan for evacuation and sheltering, document past mitigation, include jurisdictional annexes, develop mitigation actions (2 action worksheets AT LEAST), plan for climate change • Clearer communication of risk • Plan must have a public review phase – 30 days 	<ul style="list-style-type: none"> • Send out link for in-kind tracker • Steering Committee to complete Hazard of Concern exercise by August 16



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



	<ul style="list-style-type: none"> • Planning Partnership – county, steering committee, jurisdictional reps from participating jurisdictions • Core planning team – Monroe County Office of Emergency Management and Tetra Tech • 2017 Hazards of Concern will need to be reviewed <ul style="list-style-type: none"> ○ Recommend adding disease outbreak, remove non-natural hazards 	
3	<p>Critical Facilities and Lifeline</p> <ul style="list-style-type: none"> • Lifelines provide indispensable service i.e., fire stations, police station • Review 2017 CF Inventory • Crosswalk and identify lifelines <ul style="list-style-type: none"> ○ Lifelines – safety and security, food, water, and shelter, health and medical, energy, communications, transportation, hazardous materials 	
4	<p>Relevant Plans and Studies</p> <ul style="list-style-type: none"> • Mr. Huch asked for County level plans that have been developed or updated since 2017 • Clement Chung – in development of climate action plan, and plan forward (comp plan) – having coordination between agencies to hit State and Federal requirements both climate action, plan forward and HMP • Kelly Emerick – Coastal Lakeshore Economy and Resiliency (CLEAR) Plan, Resilient NY Food Mitigation Initiative, Irondequoit Creek • Steve Schultz, Town of Henrietta – Active Transportation Plan (2016), Local Waterfront Revitalization Program (LWRP) (in-development) 	
4	<p>Letters of Intent to Participate (LOIP)</p> <ul style="list-style-type: none"> • LOIP is requested from each municipality – to ensure Tetra Tech can begin contact and get started on their sections of the plan 	
5	<p>Steering Committee</p> <ul style="list-style-type: none"> • Roles and responsibilities – provide guidance, oversee the planning process, act as the point of contact for all partners and stakeholders • Steering Committee will need to review goals and objectives 	<ul style="list-style-type: none"> • Review Steering Committee Guidelines • Complete Goals and Objectives exercise and return by August 16
	<p>Community Rating System (CRS) Integrations</p> <ul style="list-style-type: none"> • HMP is being developed to qualify for points in the CRS floodplain management section • Clement Chung– County working with DEC for Climate Smart Community Project to encourage communities to join CRS– ongoing for several months 	
9	<p>Conclusion</p>	



**MONROE COUNTY HAZARD MITIGATION PLAN UPDATE
PLANNING PARTNERSHIP KICKOFF MEETING – AGENDA
MEETING DATE/TIME: August 10, 2022 – 9:00 am**



Virtual Meeting

- Welcome and Introductions
- In-Kind Tracking
- Hazard Mitigation Plan Context
- Project Organization
- Hazard Mitigation Planning Overview
- Schedule
- Project Organization
- Critical Facilities/Lifelines
- Municipal Worksheets
- Risk Assessment
- Public and Stakeholder Outreach
- CRS Integration
- Conclusion and Next Steps



Monroe County
Hazard Mitigation Plan Update
Planning Partnership Kick-Off Meeting | August 10, 2022



TETRA TECH

1

Agenda

- Welcome and Introductions
- In-Kind Tracking
- Hazard Mitigation Plan Context
- Project Organization
- Hazard Mitigation Planning Overview
- Schedule
- Project Organization
- Critical Facilities/Lifelines
- Municipal Worksheets
- Risk Assessment
- Public and Stakeholder Outreach
- CRS Integration
- Conclusion and Next Steps

TETRA TECH

2

Introduction

- Opening Remarks
 - Monroe County
 - Roll Call
 - NYSDHSES
 - FEMA



TETRA TECH

3

In-Kind Tracking- FEMA Grant Requirement

Monroe County HMP In-Kind Tracking

In-Kind Tracker

Monroe County received FEMA funding to update the Hazard Mitigation Plan (HMP). To meet the required match, the County will use in-kind services.

Please use this form to document your time spent working on the HMP. This includes attending meeting, conference calls, working on your municipal annex, reviewing sections of the plan, etc.

If you have any questions, please reach out to Chris Huch (chris.huch@tetratech.com | 973.830.8367).

• Name

• Jurisdiction

TETRA TECH

4

Hazard Mitigation – What is it?

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

-OR-

Any action taken to reduce future disaster losses

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



TETRA TECH

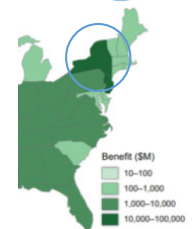
5

Hazard Mitigation Works!

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

	National Benefit-Cost Ratio Per Peril <small>(High numbers in this study have better overall)</small>	Federally Funded
Riverine Flood	7:1	Yes
Hurricane Surge	7:1	Yes
Wind	5:1	Yes
Earthquake	3:1	Yes
Wildland-Urban Interface Fire	3:1	Yes

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

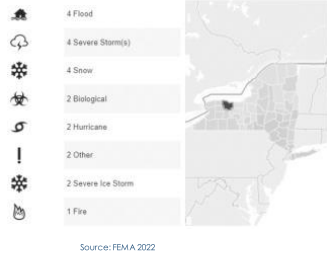


TETRA TECH

6

Hazard Mitigation – What’s at Risk?

FEMA Disaster Declaration history in Monroe County
21 disasters since 1953



TETRA TECH

7

Hazard Mitigation – What’s at Risk?

Year of Declaration Date	Declaration Title	Disaster Number
1972	TROPICAL STORM AGNES	339
1973	HIGH WINDS, WAVE ACTION & FLOODING	367
1974	FLOODING (NY'S BARRE CANAL)	3004
1979	ICE STORMS/SEVERE STORMS & FLOODING	491
1991	SEVERE WINTER STORM	898
1993	SEVERE HILLZARD	3187
1998	NY - SEVERE IOL SEPT 1, 1998	1244
	SEVERE STORMS AND FLOODING	1196
		1223
1999	SNOW	3138
2000	WEST NILE VIRUS	3155
2001	FIRES AND EXPLOSIONS	1391
2003	ICE STORM	1467
	POWER OUTAGE	3186
2004	SEVERE STORMS AND FLOODING	1534
		1534
2005	HURRICANE KATRINA EVACUATION	3262
2012	HURRICANE SANDY	2851
2017	FLOODING	4348
2020	COVID-19	3434
	COVID-19 PANDEMIC	4480

TETRA TECH

8

Key Components to Hazard Mitigation



TETRA TECH

9

Monroe County and DMA 2000

- The Mitigation Plan Update will:
 - Help the County and all jurisdictions prepare for and mitigate the effects of disasters
 - Continue to allow the County and all participating jurisdictions to be eligible for pre- and post-disaster mitigation funding
 - Support CRS participation/rating of municipalities

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

TETRA TECH

10

Requirements for Local HMP Updates

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

TETRA TECH

11

NYS DHSES Requirements

- Establish Jurisdictional Teams (*aka mitigation planning team*)
- Assess Critical Facilities
- Plan for Displaced Residents
- Plan for Evacuation and Sheltering
- Document Past Mitigation Requirements
- Include Jurisdictional Annexes
- Develop Mitigation Actions (at least 2 Action Worksheets)
- Plan for Climate Change



TETRA TECH

12

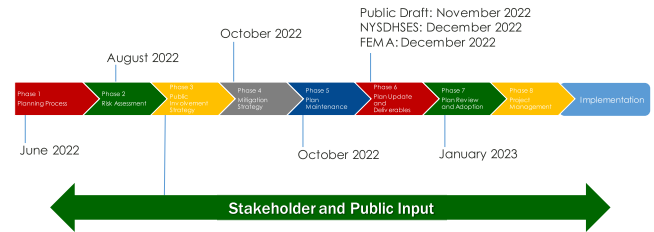
What are we focusing on?

- Clearer communication of risk
- Stronger connection between the risk assessment and mitigation strategy
- Integration of plan into county and municipal plans, policies, procedures and decision-making



13

Planning Process Overview



14

Project Organization



15

Letters of Intent to Participate (LOIP)

- Letters of Intent to Participate are required from each municipality
- The LOIP outlines expectations and responsibilities for participating jurisdictions and identifies points of contact
- County has distributed the letter with LOIP template to municipal contacts



16

Critical Facilities and Lifelines

- Review 2017 CF inventory to ensure complete
- Crosswalk and identify lifelines

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

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



17

Lifeline Components

- 1. Safety and Security**
 - Law Enforcement/Security
 - Fire Service
 - Search and Rescue
 - Government Service
 - Community Safety
- 2. Food, Water, Shelter**
 - Food
 - Water
 - Shelter
 - Agriculture
- 3. Health and Medical**
 - Medical Care
 - Public Health
 - Patient Movement
 - Medical Supply Chain
 - Fatality Management
- 4. Energy**
 - Power Grid
 - Fuel
- 5. Communications**
 - Infrastructure
 - Responder Communications
 - Alerts, Warnings, and Messages
 - Finance
 - 911 and Dispatch
- 6. Transportation**
 - Highway/Roadway/Motor Vehicle
 - Mass Transit
 - Railway
 - Aviation
 - Maritime
- 7. Hazardous Material**
 - Facilities
 - HAZMAT, Pollutants, Contaminants



18

Homework Sheets: Worksheet A

Please update the table to provide a summary of local impacts to the listed events AND note other local hazard events that resulted in damages, closures, or other impacts.

Date of Event	Event Type (Include Department if applicable)	County Engagement	Summary of Event	Municipal Summary of Damages and Losses
March 3, 2017	High Wind	No	Unusually heavy low pressure moved from southwest Ontario across Shelburne Bay. The low brought strong winds to the entire region with gusts as high as 51 mph. A significant amount of damage resulted with 100,000 without power in Shelburne County alone. During the first six months of 2017, there has been the normal amount of water accumulated in Lake Ontario. The lake reached a record level of 248.87 feet. Flooding began in early May and continued into early fall.	
May 2 - August 4, 2017	Flooding (DR, CR)	Yes	On June 15, 2017, a major rain event occurred in the Great Lakes above Lake Ontario and higher than record. Every inch of rain from the Niagara River pushed the lake to all-time record levels.	
May - June 2019	Lakelevel Flood	No	A. Currents shifted into the Ottawa River Basin as Canada entered the spring of Lake Ontario. This combined with above normal precipitation over the Lake Ontario Basin, second levels on the Great Lakes above Lake Ontario and higher than record. Every inch of rain from the Niagara River pushed the lake to all-time record levels.	
October 31, 2019	High Wind and Flooding	No	A deepening area of low pressure moved across the Great Lakes region. This system brought record breaking gusts, rain, damaging wind gusts, and a small Lake Ontario storm.	
January 20, 2020 - Present	COVID-19 Pandemic (DR, CR)	Yes	Between March 1, 2020 and July 20, 2021, Shelburne County reported 17,811 confirmed cases of COVID-19 and 1,480 total fatalities.	

TETRA TECH 19

Homework Sheets: Worksheet B

Please work with your municipal planning team and complete this worksheet. Please send electronic Word version to Chris Truch by August 31.

Municipality: _____

Name and Title of Individual Completing Worksheet: _____

Who can assist with completing this table: Municipal Planner, Clerk, Code Official, Administrator, Chief Town Clerk

Planning and Regulatory Capability

Regulatory Authority	Authority	Regulatory Authority	Authority
Building Code	Yes	Health Department	Yes
Fire Code	Yes	Police Department	Yes
Public Health Code	Yes	Public Works Department	Yes
Other	Yes	Other	Yes

Please complete the table below regarding capabilities to review and track development.

Development Type	Review	Track	Comments
Residential	Yes	Yes	
Commercial	Yes	Yes	
Industrial	Yes	Yes	
Public Works	Yes	Yes	
Other	Yes	Yes	

TETRA TECH 20

Homework Sheets: Worksheet C

Please work with your municipal planning team and complete this worksheet. Please send electronic Word version to Chris Truch by August 31.

Municipality: _____

NFP Floodplain Administrator Name Title: _____

Who can assist with completing this table: NFP Floodplain Administrator as identified by schedule in your Flood Damage Prevention Ordinance

Item	Comments
1. Does your municipality have a flood prevention ordinance?	
2. Do you maintain a list of properties that have been damaged by flooding?	
3. Do you maintain a list of properties that have been damaged by flooding?	
4. Do you maintain a list of properties that have been damaged by flooding?	
5. Do you maintain a list of properties that have been damaged by flooding?	
6. Do you maintain a list of properties that have been damaged by flooding?	
7. Do you maintain a list of properties that have been damaged by flooding?	
8. Do you maintain a list of properties that have been damaged by flooding?	
9. Do you maintain a list of properties that have been damaged by flooding?	
10. Do you maintain a list of properties that have been damaged by flooding?	

TETRA TECH 21

Homework Sheets: Worksheet D

Please work with your municipal planning team and complete this worksheet. Please send electronic Word version to Chris Truch by August 31.

MUNICIPALITY: _____

Item	Comments
1. Does your municipality have a flood prevention ordinance?	
2. Do you maintain a list of properties that have been damaged by flooding?	
3. Do you maintain a list of properties that have been damaged by flooding?	
4. Do you maintain a list of properties that have been damaged by flooding?	
5. Do you maintain a list of properties that have been damaged by flooding?	
6. Do you maintain a list of properties that have been damaged by flooding?	
7. Do you maintain a list of properties that have been damaged by flooding?	
8. Do you maintain a list of properties that have been damaged by flooding?	
9. Do you maintain a list of properties that have been damaged by flooding?	
10. Do you maintain a list of properties that have been damaged by flooding?	

TETRA TECH 22

Homework Sheets: Worksheet E

Please work with your municipal planning team and complete this worksheet. Please send electronic Word version by August 31 to: Chris Truch, Tetra Tech | chris.truch@tetratech.com

Municipality: _____

Name and Title of Individual Completing Worksheet: _____

Who can assist with completing these tables: The Building Department, Planning Department, and NFP Floodplain Administrator

Type of Development	2017		2018		2019		2020		2021	
	Total	Within SPRA	Total	Within SPRA	Total	Within SPRA	Total	Within SPRA	Total	Within SPRA
Single Family										
Multi-Family										
Other (Commercial, agricultural, etc.)										
Total New Construction										
Permitted Under SPRA										

TETRA TECH 23

Update Risk Assessment

- Update assets
- Examine previous impacts
- Analyze risks
- Review with Steering Committee
- Risk assessment meeting



TETRA TECH 24

Schedule

- **Planning Process**
 - Steering Committee Kick-Off – TODAY!
 - Planning Partnership Kick-Off – August 10, 2022
 - Currently working on reviewing plans, studies, and codes/ordinances
- **Update Risk Assessment**
 - Data collection is underway
 - Confirm hazards of concern and begin vulnerability assessment for each
- **Public Involvement Strategy – ongoing throughout the planning process**
- **Mitigation Strategy**
 - Begin working with the municipalities after the Planning Partnership kick-off
 - Mitigation Strategy Workshop with FEMA and NYS DHSES – October 2022
- **Draft Plan to Steering Committee by middle of fall**
- **Final draft plan to NYS DHSES and FEMA - December 2022**



Planning Partnership Next Steps

- Return Worksheets Hazard of Concern Worksheet by August 16 (Optional)
- **Return Worksheets A through E by August 31!**
- Start tracking In-Kind hours via online survey--to be distributed via email
- Confirm access to OneDrive – access to be provided in separate email
- Risk Assessment Meeting – September 2022
- Mitigation Strategy Workshop – October 2022
- Review Draft Plan





Monroe County
Hazard Mitigation Plan Update
Meeting Notes



Purpose of Meeting:	Planning Partnership Kickoff meeting
Location of Meeting:	Teleconference Zoom Meeting
Date of Meeting:	August 10, 2022 9:00 – 10:00 am

Attendees:

- Matthew Jarrett, Monroe County Office of Emergency Management
- Elisabeth Clower, Monroe County Office of Emergency Management
- Chris Huch, Tetra Tech, Project Manager
- Erika Corsi, Tetra Tech, Planner
- Dawn Forte, Town of Chili, Secretary to Town Supervisor
- Kirk Morris, Town of Greece, DPW Commissioner
- John Gauthier, Town of Greece, Associate Engineer
- Steve Schultz, Town of Henrietta, Supervisor
- Rick Milne, Village of Honeoye Falls, Mayor
- Scott Johnson, Village of Honeoye Falls, Assistant Fire Chief
- Mark Lenzi, Town of Parma, Building Inspector
- Salvatore Tantalò, Town of Pittsford, Emergency Manager/Fire Marshal
- Jackie Sullivan, Village of Spencerport, Village Clerk
- Jake Swingly, Village of Webster, Superintendent of Public Works
- Jay Coates, Town of Wheatland, Fire Marshal

Agenda Summary:

Item No.	Description	Action item(s):
1	Welcome <ul style="list-style-type: none"> • Meeting started at 9:00 am 	
2	In-Kind Tracking <ul style="list-style-type: none"> • Grant requirements for FEMA 	<ul style="list-style-type: none"> • Send out link for in-kind tracker • Planning Partnership members can choose to complete Hazard of Concern exercise by August 16
3	Hazard Mitigation Plan Context <ul style="list-style-type: none"> • Mitigation -> Prepare/Prevent -> Response -> Recover -> • Federal Mitigation grants saved 6 dollars for every 1 dollar spent • Investing at state, local, and federal level • Monroe County has had 21 disaster declarations • Plan needs to be current for grant cycle/funding • Support CRS participants/rating of municipalities – flood insurance premium reductions – Greece Class 5 – 25% reduction rate 	



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



	<ul style="list-style-type: none"> FEMA Update guidance – April 2023 – will be meeting the new 2023 standards Updates risk assessment – overview of hazards, vulnerability analysis, multiple jurisdictions Updated mitigation strategy – identification of the projects NYS DHSES Requirements – focus on certain local issues and address Federal requirements 	
4	<p>Project Organization</p> <ul style="list-style-type: none"> Core Planning Team – Monroe County OEM and Tetra Tech Steering committee – County departments, outside agencies and stakeholders Planning Partnership – all participating municipalities, Steering Committee Stakeholders FEMA & NYSDHSES 	
5	<p>Letters of Intent to Participate (LOIP)</p> <ul style="list-style-type: none"> LOIP is requested from each municipality – to ensure Tetra Tech can begin contact and get started on their sections of the plan 	<ul style="list-style-type: none"> Municipalities should complete and submit their LOIP
6	<p>Schedule</p> <ul style="list-style-type: none"> Phase 2 – Risk Assessment – August 2022 Phase 3- Public Involvement Strategy Phase 4 – Mitigation Strategy – October 2022 Phase 5 – Plan Maintenance – October 2022 Phase 6 – Plan Update and Development – November/December 2022 Phase 7 – Plan review and Adoption – Jan 2023 	
7	<p>Critical Facilities and Lifelines</p> <ul style="list-style-type: none"> Critical Facilities – considered critical to health and welfare of population – schools Lifelines – provides indispensable services that enables continuous operation of critical business – fire, police, hospital 	
8	<p>Municipal Worksheets</p> <ul style="list-style-type: none"> Worksheet A – Past Events History – closures, dollar amount in damages if possible Worksheet B – Capability Assessment – plans, staffing, outreach Worksheet C – NFIP Floodplain Administrator – to be filled out by Floodplain Admin. Worksheet D – Mitigation Action Review – Provide status update on 2017 actions and note which actions are to be included in 2023 	<ul style="list-style-type: none"> Tetra Tech sending Worksheets A-E to participating municipalities Municipalities to complete and return worksheets by August 31



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



	<p>update. Anything discontinued needs an explanation of discontinuation</p> <ul style="list-style-type: none"> Worksheet E – Building Permits – Fill out for brand new structures, in areas where there was no previous structure. 	
9	<p>Risk Assessment</p> <ul style="list-style-type: none"> Additional hazard – disease outbreak – hazard mitigation \$ on the table for future planning efforts Utility failure - discontinued as a standalone hazard – it is a cascading impact Civil unrest, Terrorism to be discontinued as they are non-natural hazards and addressed in other planning efforts 	<ul style="list-style-type: none"> Optional: Complete hazard of concern exercise by August 16
10	<p>Public and Stakeholder Outreach</p> <ul style="list-style-type: none"> www.monroecountynyhmp.com set up and live Will complete stakeholder and public surveys Social media postings will be developed 	<ul style="list-style-type: none"> Planning Partnership to assist with outreach announcements
11	<p>Goals and Objectives</p> <ul style="list-style-type: none"> Looking into high hazard dams as potential new goal and objective 	<ul style="list-style-type: none"> Optional: Complete goals and objectives exercise by August 16
12	<p>Community Rating System (CRS) Integrations</p> <ul style="list-style-type: none"> HMP is being developed to qualify for points in the CRS floodplain management section Chili, Henrietta, and Penfield are all exploring the CRS program 	
9	<p>Conclusion</p>	



**MONROE COUNTY HAZARD MITIGATION PLAN UPDATE
STEERING COMMITTEE MEETING – AGENDA
MEETING DATE/TIME: October 13, 2022 – 10:00 am**



Steering Committee Risk Assessment Meeting

Join Zoom Meeting

<https://monroecounty-gov.zoom.us/j/85460523974?pwd=VWN4cmVHZTdaajE3MyszSFArOFRiQT09>

Meeting ID: 854 6052 3974

Passcode: 85642664

One tap mobile

+16468769923,,85460523974#,,,,*85642664# US (New York)

+16469313860,,85460523974#,,,,*85642664# US

- Welcome and Introductions
- In-Kind Tracking
- Project Status Update
- Risk Assessment
- Risk Ranking Summary
- Hazards of Concern Exercise
- SWOO Exercise: <https://www.surveymonkey.com/r/MonroeSWOO>
- Conclusion and Next Steps



Monroe County Hazard Mitigation Plan Update
Steering Committee Risk Assessment Meeting | October 13, 2022



1

Agenda

- Introduction
- In-Kind Tracking
- Project Status Update
- Risk Assessment
- Risk Ranking Summary
- SWOO Exercise
- Conclusion and Next Steps



2

Introduction

- Opening Remarks
 - Monroe County
 - Roll Call
 - NYSDHSES
 - FEMA



3

In-Kind Tracking- FEMA Grant Requirement

Monroe County HMP In-Kind Tracking

In-Kind Tracker

Monroe County received FEMA funding to update the Hazard Mitigation Plan (HMP). To meet the required match, the County will use In-kind services.

Please use this form to document your time spent working on the HMP. This includes attending meeting, conference calls, working on your municipal annex, reviewing sections of the plan, etc.

If you have any questions, please reach out to Chris Huch (chris.huch@tetratech.com | 973.830.0357).

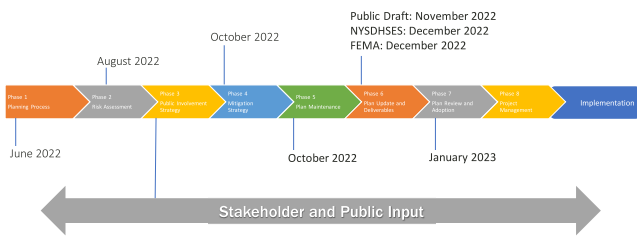
• Name

• Jurisdiction



4

Project Status Update



5

Public Outreach

- Help get the word out about the HMP
 - www.monroecountynhmp.com
 - Social media blasts
 - HMP link on your department/agency website
 - Stakeholder and Public Survey



6

Risk Assessment

2022 HMP Hazards of Concern:

- Disease Outbreak
- Drought
- Earthquake
- Extreme Temperature
- Flood
- Hazardous Materials
- Infestation and Invasive Species
- Landslide
- Severe Storm
- Severe Winter Storm
- Wildfire

TETRA TECH

7

Risk Assessment – What is Risk?

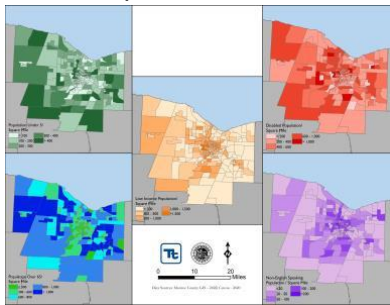
Risk is a function of:

- ✓ Hazard - source of potential danger or adverse condition
- ✓ Exposure - manmade features exposed to the hazard
- ✓ Vulnerability - damage susceptibility exposed features
- ✓ Adaptive Capacity
 - Plans/policies
 - Response/recovery
 - Financial resources

TETRA TECH

8

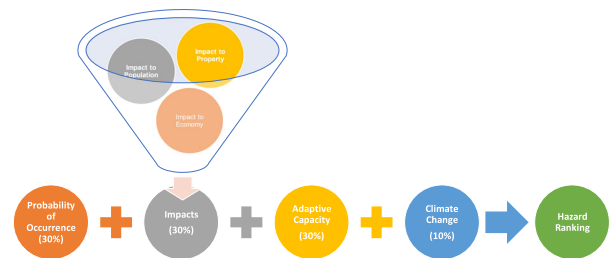
Vulnerable Populations



TETRA TECH

9

Hazard Ranking Formula



TETRA TECH

10

Disease Outbreak Risk Ranking Value = Low

- Past outbreaks in USA
 - Influenza (annual)
 - Asian Flu (1957-1958)
 - West Nile Virus (2000)
 - Swine Flu (2009-2010)
 - Ebola (2014)
 - Covid-19 (2020-present)
- Exposure
 - Entire County is vulnerable
 - Highest vulnerability = dense populations
- Predicting future occurrences is difficult
- Climate changes - Warmer temperatures and changing rainfall patterns will affect outbreaks

TETRA TECH

11

Drought Risk Ranking Value = Medium

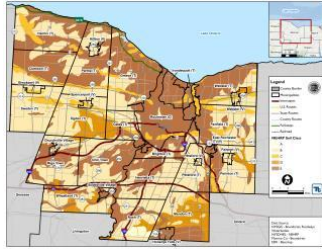
- Monroe County is home to 527 farms (USDA 2017 Census of Agriculture)
- Monroe County was included in 3 recent drought-related U.S. Department of Agriculture (USDA) disaster declarations:
 - S4023 - 2016 Drought
 - S4031 - 2016 Drought
 - S4037 - 2016 Drought (USDA 2022)
- 2016 resulted in over \$2 million in losses due to drought (USDA 2022)

TETRA TECH

12

Earthquake Risk Ranking Value = Low

- History
 - No disaster declarations or major earthquakes
 - Earthquakes have been felt that have occurred elsewhere in the northeast
- Exposure to NEHRP Soils, Type D & E Soils
 - 59.4% of population, 59.7% of building stock, and 65.4% of RCV exposed
- Probability - Unlikely



TETRA TECH

13

13

Extreme Temperature Risk Ranking Value = Medium

- Extreme heat >10 degrees above the average high temperature that lasts for several weeks
 - A leading weather-related cause of death in USA
- Extreme cold temperatures < 0 degrees
- History
 - 1 recorded event 1999-2022 (extreme cold/wind chill)
- Exposure
 - Entire County population exposed
 - More urbanized areas can experience Urban Heat Island effect
- Probability - Occasional

TETRA TECH

14

14

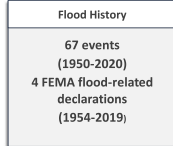
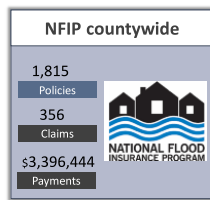
Flood Hazard Risk Rank = Medium

Impacts

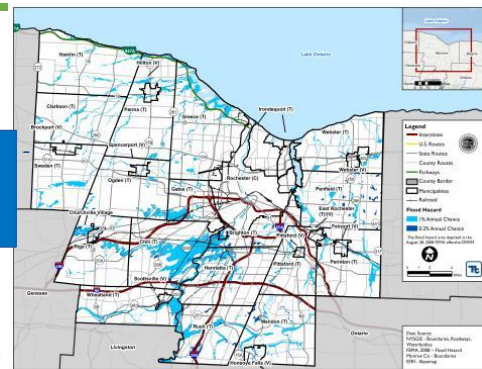
- \$10.326 million in reported property damage since 1996 (NOAA Storm Events Database)

Exposure 1-Percent Annual Chance Floodplain

- \$5.364 billion building stock replacement value
- 59 critical facilities (most are dams and pump stations)
- 46,819 tons of debris



FEMA Flood Hazard Areas



TETRA TECH

15

15

16

Hazardous Materials Hazard Risk Rank = Low

- Numerous facilities throughout Monroe County use and store hazardous materials
- Transportation accidents
- Accidental releases
- Pipelines
- Nuclear accidents



TETRA TECH

17

17

Infestation and Invasive Species Hazard Risk Rank = Low

- Past invasive species
 - True Armyworm
 - Black Swallow-Wort
 - Brown Marmorated Stink Bug
 - Emerald Ash Borer
 - Hemlock Woolly Adelgid
 - Spotted Lanternfly
- Predicting future occurrences is difficult
- Climate changes – shifts in climate zones are likely to result in shifting species ranges. Stressed ecosystems from climate change are more likely to have negative impacts from external stressors like climate change.

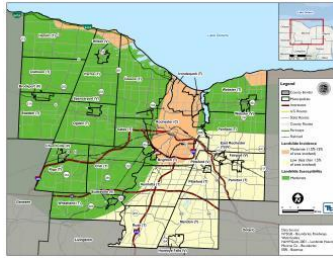
TETRA TECH

18

18

Landslide Hazard Risk Rank = Low

- Incidence
 - Areas of moderate incidence are located along Lake Ontario and the center of the County.
 - No recent landslide events on record
- Susceptibility
 - Areas of moderate susceptibility include all the county aside from the southeastern regions.



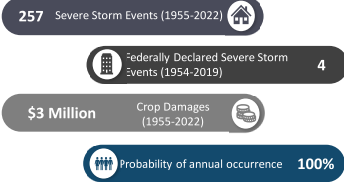
TETRA TECH

19

19

Severe Storms Risk Ranking Value= High

- Include thunderstorm, lightning, hailstorm, windstorm, tornado, hurricanes/tropical storms
- Climate change likely to cause more severe and more frequent severe storms.



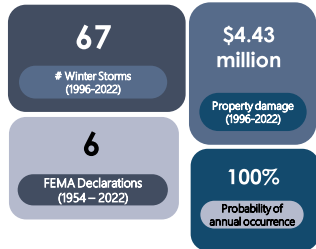
TETRA TECH

20

20

Severe Winter Storms Risk Ranking Value= High

- Include blizzards, ice storms, snowstorms, sleet, freezing rain
- Entire County is vulnerable
 - Traffic accidents
 - Overexertion
 - Hypothermia
 - Access for emergency vehicles



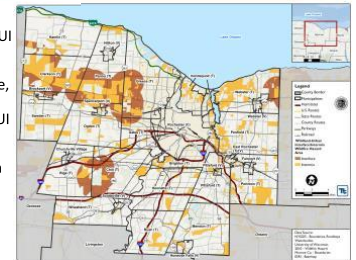
TETRA TECH

21

21

Wildfire Hazard Risk Rank = Low

- 5.7% of population located in the WUI Interface, 7.9% located in the WUI Intermix
- 17,252 buildings in the WUI Interface, 25,551 in the WUI Intermix
- 72 lifeline facilities located in the WUI Interface, 120 facilities in the WUI Intermix
- \$12 billion replacement cost value in WUI Interface, \$16 billion in WUI Intermix
- 120 lifeline facilities located in the WUI Intermix



TETRA TECH

22

22

Risk Ranking Summary - Countywide

Hazard of Concern	Probability x 30%	Total Impact x 30%	Adaptive Capacity x 30%	Changing Future Conditions x 10%	Total Risk Ranking Value
Disease Outbreak	0.6	2.7	0	0.2	3.5
Drought	0.6	3	0	0.3	3.9
Earthquake	0	3.6	0	0.1	3.7
Extreme Temperature	0.6	3	0	0.3	3.9
Flood	0.6	3.3	0	0.3	4.2
Hazardous Materials	0.3	3	0	0.1	3.4
Invasive Species	0.6	2.1	0.3	0.3	2.7
Landslide	0	3.6	0	0.2	3.8
Severe Storm	0.9	4.2	-0.3	0.3	5.1
Severe Winter Storm	0.9	4.5	-0.3	0.2	5.3
Wildfire	0.6	1.8	0	0.2	2.6

TETRA TECH

23

23

Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)

- Strengths** – what mitigation actions does our town/village/city already do?
- Weaknesses** – what could we do better?
- Obstacles** – what impedes us from taking mitigation action? What is a challenge to overcome?
- Opportunities** – used to develop mitigation strategies

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

TETRA TECH

24

24

Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)

Hazard	
Strengths	Weaknesses
What does the county and its communities do well in terms of: <ul style="list-style-type: none"> Plans and Regulations <ul style="list-style-type: none"> Codes, Ordinances, Planning Studies, Comprehensive Plans, Adaptation and Resiliency Plans Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs Preparedness Others? 	What can the county and its communities do better or what are the gaps in terms of: <ul style="list-style-type: none"> Plans and Regulations <ul style="list-style-type: none"> Codes, Ordinances, Planning Studies, Comprehensive Plans, Adaptation and Resiliency Plans Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs Preparedness Others?

TETRA TECH

25

25

Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)

Hazard	
Obstacles	Opportunities
What is preventing the county and its communities to implement: <ul style="list-style-type: none"> Plans and Regulations <ul style="list-style-type: none"> Codes, Ordinances, Planning Studies, Comprehensive Plans, Adaptation and Resiliency Plans Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs Preparedness Others? 	What can the county and its communities implement in terms of: <ul style="list-style-type: none"> Plans and Regulations <ul style="list-style-type: none"> Codes, Ordinances, Planning Studies, Comprehensive Plans, Adaptation and Resiliency Plans Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs Preparedness Others?

TETRA TECH

26

26

Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)

Hazard: Flood		Hazard: Severe Winter Storm		Hazard: Severe Storms	
S	Minimal exposure to flood risk	S	Municipalities have the resources and experience to deal with winter weather	S	Tree trimming programs are in place
W	Silt and debris buildup in streams can lead to localized flooding	W	Aging equipment	W	Aging infrastructure; lack of underground utilities
Ob	Funding for culvert and catch basin maintenance	Ob	Funding; limited staff for prolonged events	Ob	Cost to retrofit existing utility infrastructure
Opps	Installing stream gages	Opps	Shared services	Opps	Underground utilities; enhance public outreach program

TETRA TECH

27

27

Planning Partnership Next Steps

- Complete the SWOO survey by end of today
- Mitigation Strategy Workshop – Monday October 17, 2022 at 11:00 a.m.
ATTENDANCE IS MANDATORY
- Hold call with your Assigned Tetra Tech planner to develop actions and complete annex by November 4
- Review Draft Plan - November
- Remember to continue to track In-Kind hours via online survey
 - If you need the link sent again, email chris.hugh@tetratech.com

TETRA TECH

28

28

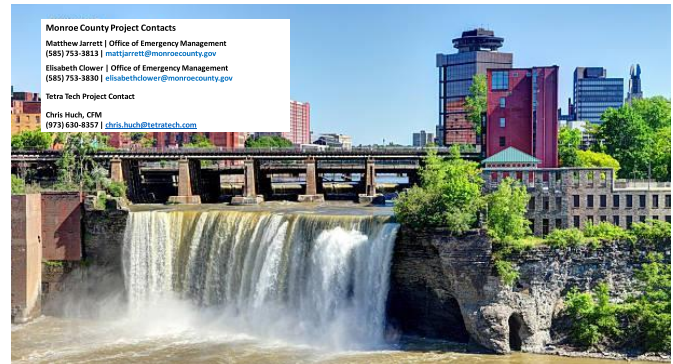
Questions?



TETRA TECH

29

29



Monroe County Project Contacts
 Matthew Jarrett | Office of Emergency Management
 (585) 753-3813 | mattjarrett@monroecounty.gov
 Elisabeth Clower | Office of Emergency Management
 (585) 753-3830 | elisabethclower@monroecounty.gov
Tetra Tech Project Contact
 Chris Hugh, CFM
 (973) 630-8357 | chris.hugh@tetratech.com

30



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



Purpose of Meeting:	Steering Committee Risk Assessment Meeting
Location of Meeting:	Teleconference Teams Meeting
Date of Meeting:	October 13, 2022 10:00am – 11:00am

Attendees:

- Matthew Jarrett, Monroe County Office of Emergency Management
- Elisabeth Clower, Monroe County Office of Emergency Management
- Clement Chung, Monroe County Department of Environmental Services, Deputy Director
- Andrew Sansone, Monroe County Department of Environmental Services
- Rochelle Bell, Monroe County Department of Planning and Development, Senior Associate Planner
- Kelly Emerick, Monroe County Soil & Water Conservation District, Executive Director
- Scott McCarty, Monroe County DES-GIS Services Division, Operations Manager
- Chris Huch, Tetra Tech, Project Manager
- Erika Corsi, Tetra Tech, Planner
- Chuck DiSalvo, Monroe Community College, Public Safety
- Karen St Aubin, City of Rochester Emergency Management Office,
- Jason Palvino, Rochester-Genesee Regional Transportation Authority (RGRTA), System Safety Manager
- Jamie Renner, City of Rochester Fire Department, Captain
- Erin Magee, Irondequoit DPW, Deputy Commissioner
- Shannon Clarke, DHSES
- Roland Paperman, DHSES

Agenda Summary:

Item No.	Description	Action item(s):
1	Welcome and Introductions <ul style="list-style-type: none"> • Meeting started at 10:00 am 	
2	In-Kind Tracking <ul style="list-style-type: none"> • Attendees were reminded to fill out the in-kind tracking form for work completed outside of meetings 	<ul style="list-style-type: none"> • In-kind tracker will be sent out by Tt via email
3	Project Status Update <ul style="list-style-type: none"> • Project timeline is on track • Mitigation Strategy Workshop – Steering Committee members encouraged to attend • Tail end of October – maintenance procedures, review sections of the draft plan, plan for public review in mid November – 30 day period – send to DHSES early December 	<ul style="list-style-type: none"> • Mitigation Strategy Workshop – Monday, 10/24 10am
4	Risk Assessment <ul style="list-style-type: none"> • Each hazard of concern has a stand alone hazard profile • Climate change is a new requirement for HMPs and included in the risk assessment • Adaptive capacity is included in risk rankings as well. 	<ul style="list-style-type: none"> • Continue to work with FEMA to obtain updated NFIP data



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



	<ul style="list-style-type: none"> • Earthquake – Low –Soil in the region will have a greater chance of shaking – 59% of population and 57% of building stock is in NEHRP soil areas D & E. • Extreme Temp(Heat/Cold) – Medium – extreme heat >10 degrees and extreme cold < 0 degrees. Urban areas more susceptible to extreme heat events (urban Heat Island) Medium ranking is based on economy and building damage. • Flooding – medium – HAZUS – model potential impacts – four major disaster declarations. Working to get updated NFIP data, current data is from 2008. Flood risk overall in the future is likely to increase 	
5	<p>Risk Ranking Summary</p> <ul style="list-style-type: none"> • Extreme Temperature (Heat/Cold) – ranked medium on 2020 CEPA. The Steering Committee felt extreme temp could stay at medium instead of high • Flood – <ul style="list-style-type: none"> ○ Mr. Chung noted FEMA is reclassifying what ‘flood’ means for remapping FIRMS, does the hazard ranking reflect the changes coming down the pipeline? Mr. Huch explained that FIRMS have specific language for flooding but the HMP includes a variety of flooding including flooding not considered for FIRMS such as urban flooding. ○ Mr. Sansone noted that in previous plans, flooding was high risk hazard and asked if there was a different calculation for how flooding is being evaluated for this update. Mr. Huch noted that the hazard ranking calculation has been updated but local conditions can warrant adjustments. ○ The Steering Committee agreed that flood should be moved up to a high ranking based on current conditions and recent impacts. • The County-wide rankings are as follows: <ul style="list-style-type: none"> ○ Disease Outbreak: Low ○ Drought: Medium ○ Earthquake: Low ○ Extreme Temperature: Medium ○ Flood: High ○ Hazardous Materials: Low ○ Invasive Species: Low ○ Landslide: Low ○ Severe Storm: High ○ Severe Winter Storm: High ○ Wildfire: Low 	
6	<p>SWOO Exercise</p> <ul style="list-style-type: none"> • Steering Committee to complete a SWOO. • The Planning Partnership is also completing the SWOO • https://www.surveymonkey.com/r/MonroeSWOO 	<ul style="list-style-type: none"> • Request will be sent out via email • Submit SWOO by end of week
7	<p>Conclusion - The meeting concluded at 11:00 am</p>	



Monroe County
Hazard Mitigation Plan Update
Meeting Notes





**MONROE COUNTY HAZARD MITIGATION PLAN UPDATE
PLANNING PARTNERSHIP MEETING – AGENDA
MEETING DATE/TIME: October 13, 2022 – 11:00 am**



Planning Partnership Risk Assessment Meeting

Join Zoom Meeting

<https://monroecounty-gov.zoom.us/j/89783108957?pwd=QjhXOU9tRDMrbE9ZRW1zbGJLbjRyZz09>

Meeting ID: 897 8310 8957

Passcode: 46014449

One tap mobile

+16469313860,,89783108957#,,,,*46014449# US

+16468769923,,89783108957#,,,,*46014449# US (New York)

- Welcome and Introductions
- In-Kind Tracking
- Project Status Update
- Risk Assessment
- Risk Ranking Summary
- Hazards of Concern Exercise
- SWOO Exercise: <https://www.surveymonkey.com/r/MonroeSWOO>
- Conclusion and Next Steps



**Monroe County
Hazard Mitigation Plan Update**
Planning Partnership Risk Assessment Meeting | October 13, 2022



1

Agenda

- Introductions
- In-Kind Tracking
- Project Status Update
- Risk Assessment
- Risk Ranking Summary
- SWOO Exercise
- Conclusion and Next Steps



2

Introduction

- Opening Remarks
 - Monroe County
 - Roll Call
 - NYSDHSES
 - FEMA



3

In-Kind Tracking- FEMA Grant Requirement

Monroe County HMP In-Kind Tracking

In-Kind Tracker

Monroe County received FEMA funding to update the Hazard Mitigation Plan (HMP). To meet the required match, the County will use in-kind services.

Please use this form to document your time spent working on the HMP. This includes attending meeting, conference calls, working on your municipal annex, reviewing sections of the plan, etc.

If you have any questions, please reach out to Chris Huch (chris.huch@tetratech.com | 973.830.0387).

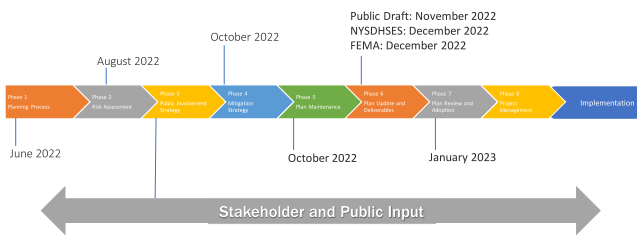
• Name

• Jurisdiction



4

Project Status Update



5

Jurisdiction	Worksheet A - Hazard Event History	Worksheet B - Capability Assessment	Worksheet C - NFIP Floodplain Admin.	Worksheet D - Past Action review	Worksheet E - New Development
Town of Brighton	X	X	X	X	X
Village of Brockport	X	X	X	X	X
Town of Chili	X	X	X	X	X
Village of Churchville	X	X	X	X	X
Town of Clarkson	X	X	X	X	X
Town/Village of East Rochester	X	X	X	X	X
Village of Fairport	X	X	X	X	X
Town of Gates	X	X	X	X	X
Town of Greece	X	X	X	X	X
Town of Hamlet	X	X	X	X	X
Town of Henrieville	X	X	X	X	X
Village of Hilton	X	X	X	X	X
Village of Irondequoit Falls	X	X	X	X	X
Town of Irondequoit	X	X	X	X	X
Town of Mendon	X	X	X	X	X
Town of Ogden	X	X	X	X	X
Town of Parma	X	X	X	X	X
Town of Penfield	X	X	X	X	X
Town of Perinton	X	X	X	X	X
Town of Pittsford	X	X	X	X	X
Village of Pittsford	X	X	X	X	X
Town of Ridge	X	X	X	X	X
City of Rochester	X	X	X	X	X
Town of Iron	X	X	X	X	X
Village of Scarsdale	X	X	X	X	X
Village of Spencerport	X	X	X	X	X
Town of Tonawanda	X	X	X	X	X
Town of Webster	X	X	X	X	X
Village of Webster	X	X	X	X	X
Town of Wheatland	X	X	X	X	X

6

Public Outreach

- Help get the word out about the HMP
 - www.monroecountynyhmp.com
 - Social media blasts
 - HMP link on your department/agency website
 - Stakeholder and Public Survey



TETRA TECH

7

7

Risk Assessment

Hazards of Concern:

- Disease Outbreak
- Drought
- Earthquake
- Extreme Temperature
- Flood
- Hazardous Materials
- Infestation and Invasive Species
- Landslide
- Severe Storm
- Severe Winter Storm
- Wildfire

TETRA TECH

8

8

Risk Assessment – What is Risk?

Risk is a function of:

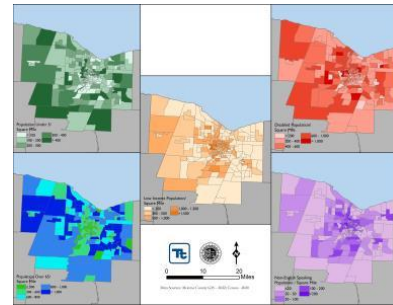
- ✓ Hazard - source of potential danger or adverse condition
- ✓ Exposure - manmade features exposed to the hazard
- ✓ Vulnerability - damage susceptibility exposed features
- ✓ Adaptive Capacity
 - Plans/policies
 - Response/recovery
 - Financial resources

TETRA TECH

9

9

Vulnerable Populations

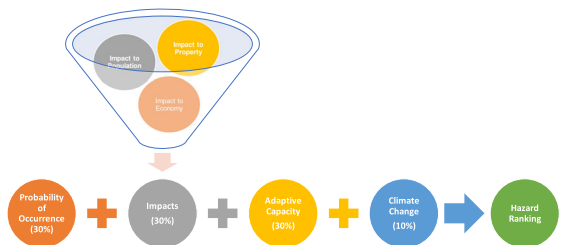


TETRA TECH

10

10

Hazard Ranking Formula



TETRA TECH

11

11

Disease Outbreak

Risk Ranking Value = Low

- Past outbreaks in USA
 - Influenza (annual)
 - Asian Flu (1957-1958)
 - West Nile Virus (2000)
 - Swine Flu (2009-2010)
 - Ebola (2014)
 - Covid-19 (2020-present)
- Exposure
 - Entire County is vulnerable
 - Highest vulnerability = dense populations
- Predicting future occurrences is difficult
- Climate changes - Warmer temperatures and changing rainfall patterns will affect outbreaks

TETRA TECH

12

12

Drought

Risk Ranking Value = Medium

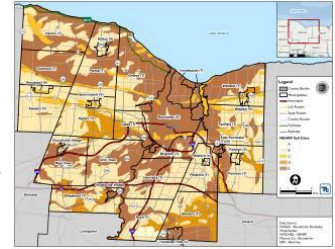
- Monroe County is home to 527 farms (USDA 2017 Census of Agriculture)
- Monroe County was included in 3 recent drought-related U.S. Department of Agriculture (USDA) disaster declarations:
 - S4023 - 2016 Drought
 - S4031 - 2016 Drought
 - S4037 - 2016 Drought (USDA 2022)
- 2016 resulted in over \$2 million in losses due to drought (USDA 2022)

TETRA TECH 13

Earthquake

Risk Ranking Value = Low

- History
 - No disaster declarations or major earthquakes
 - Earthquakes have been felt that have occurred elsewhere in the northeast
- Exposure to NEHRP Soils , Type D & E Soils
 - 59.4% of population, 59.7% of building stock, and 65.4% of RCV exposed
- Probability - Unlikely



TETRA TECH 14

Extreme Temperature

Risk Ranking Value = Medium

- Extreme heat >10 degrees above the average high temperature that lasts for several weeks
 - A leading weather-related cause of death in USA
- Extreme cold temperatures < 0 degrees
- History
 - 1 recorded event 1999-2022 (extreme cold/wind chill)
- Exposure
 - Entire County population exposed
 - More urbanized areas can experience Urban Heat Island effect
 - Probability - Occasional

TETRA TECH 15

Flood

Hazard Risk Rank = Medium

- Impacts
- \$10.326 million in reported property damage since 1996 (NOAA Storm Events Database)
- Exposure 1-Percent Annual Chance Floodplain
- \$5.364 billion building stock replacement value
 - 59 critical facilities (most are dams and pump stations)
 - 46,819 tons of debris

NFIP countywide

1,815	
Policies	
356	
Claims	
\$3,396,444	Payments

Flood History

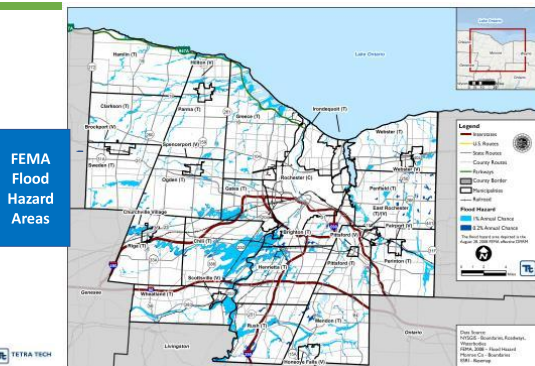
67 events (1950-2020)

4 FEMA flood-related declarations (1954-2019)

Residents exposed to 1-percent annual chance flood area: 6,364

0.8% of total population

TETRA TECH 16



TETRA TECH 17

Hazardous Materials

Hazard Risk Rank = Low

- Numerous facilities throughout Monroe County use and store hazardous materials
- Transportation accidents
- Accidental releases
- Pipelines
- Nuclear accidents



TETRA TECH 18

Infestation and Invasive Species Hazard Risk Rank = Low

- Past invasive species
 - True Armyworm
 - Black Swallow-Wort
 - Brown Marmorated Stink Bug
 - Emerald Ash Borer
 - Hemlock Woolly Adelgid
 - Spotted Lanternfly
- Predicting future occurrences is difficult
- Climate changes – shifts in climate zones are likely to result in shifting species ranges. Stressed ecosystems from climate change are more likely to have negative impacts from external stressors like climate change.

TETRA TECH

19

19

Landslide Hazard Risk Rank = Low

- Incidence
 - Areas of moderate incidence are located along Lake Ontario and the center of the County.
 - No recent landslide events on record
- Susceptibility
 - Areas of moderate susceptibility include all the county aside from the southeastern regions.



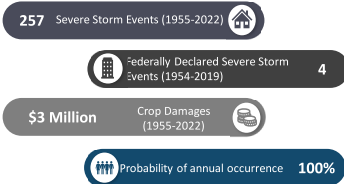
TETRA TECH

20

20

Severe Storms Risk Ranking Value= High

- Include thunderstorm, lightning, hailstorm, windstorm, tornado, hurricanes/tropical storms
- Climate change likely to cause more severe and more frequent severe storms.



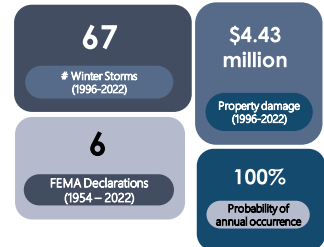
TETRA TECH

21

21

Severe Winter Storms Risk Ranking Value= High

- Include blizzards, ice storms, snowstorms, sleet, freezing rain
- Entire County is vulnerable
 - Traffic accidents
 - Overexertion
 - Hypothermia
 - Access for emergency vehicles



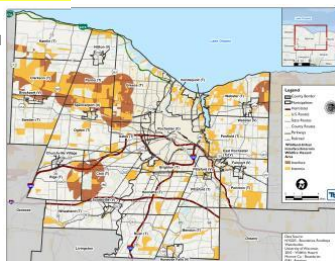
TETRA TECH

22

22

Wildfire Hazard Risk Rank = Low

- 5.7% of population located in the WUI Interface, 7.9% located in the WUI Intermix
- 17,252 buildings in the WUI Interface, 25,551 in the WUI Intermix
- 72 lifeline facilities located in the WUI Interface, 120 facilities in the WUI Intermix
- \$12 billion replacement cost value in WUI Interface, \$16 billion in WUI Intermix
- 120 lifeline facilities located in the WUI Intermix



TETRA TECH

23

23

Risk Ranking Summary - Countywide

Hazard of Concern	Probability x 30%	Total Impact x 30%	Adaptive Capacity x 30%	Changing Future Conditions x 10%	Total Risk Ranking Value	
Disease Outbreak	0.6	2.7	0	0.2	3.5	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="background-color: #d9ead3; padding: 5px; margin-bottom: 5px;">Low</div> <div style="background-color: #fcf8e3; padding: 5px; margin-bottom: 5px;">Medium</div> <div style="background-color: #f2dede; padding: 5px;">High</div> </div>
Drought	0.6	3	0	0.3	3.9	
Earthquake	0	3.6	0	0.1	3.7	
Extreme Temperature	0.6	3	0	0.3	3.9	
Flood	0.6	3.3	0	0.3	4.2	
Hazardous Materials	0.3	3	0	0.1	3.4	
Invasive Species	0.6	2.1	0.3	0.3	2.7	
Landslide	0	3.6	0	0.2	3.8	
Severe Storm	0.9	4.2	-0.3	0.3	5.1	
Severe Winter Storm	0.9	4.5	-0.3	0.2	5.3	
Wildfire	0.6	1.8	0	0.2	2.6	

TETRA TECH

24

24

Risk Ranking Summary – Municipalities

Monroe County Municipality	Disease Outbreak	Tsunami	Seismicity	Natural Hazards						Severe Winter Storms	Wildfires
				Fatality	Flood	Landslide	Hazard	Transfer	Score		
Town of Bluffton	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Calhoun	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Cayce	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Charleston	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Chesapeake	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Columbia	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Denmark	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Goose	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Hartsville	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Hazlehurst	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Hillton	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Independence	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Irmo	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Kershaw	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Lake City	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Lexington	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Littleton	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Marlboro	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Milledgeville	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Newnan	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of North Charleston	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of North Augusta	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of North Greenville	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Oconee	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Ogeechee	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Oklawaha	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Orangeburg	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Port Republic	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Richland	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Santee	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Seneca	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Summerville	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Swainsboro	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Union	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Vidalia	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Waynesboro	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Westminster	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of Woodbury	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low
Town of York	Low	Low	Low	Medium	Low	Low	Low	Low	Low	Low	Low

Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)

- **Strengths** – what mitigation actions does our town/village/city already do?
- **Weaknesses** – what could we do better?
- **Obstacles** – what impedes us from taking mitigation action? What is a challenge to overcome?
- **Opportunities** – used to develop mitigation strategies

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

Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)

Hazard	
Strengths	Weaknesses
What does the county and its communities do well in terms of: <ul style="list-style-type: none"> ➢ Plans and Regulations <ul style="list-style-type: none"> • Codes, Ordinances, Planning Studies, Comprehensive Plans, Adaptation and Resiliency Plans ➢ Structure and Infrastructure Projects ➢ Natural Systems Protection ➢ Education and Awareness Programs ➢ Preparedness ➢ Others? 	What can the county and its communities do better or what are the gaps in terms of: <ul style="list-style-type: none"> ➢ Plans and Regulations <ul style="list-style-type: none"> • Codes, Ordinances, Planning Studies, Comprehensive Plans, Adaptation and Resiliency Plans ➢ Structure and Infrastructure Projects ➢ Natural Systems Protection ➢ Education and Awareness Programs ➢ Preparedness ➢ Others?

Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)

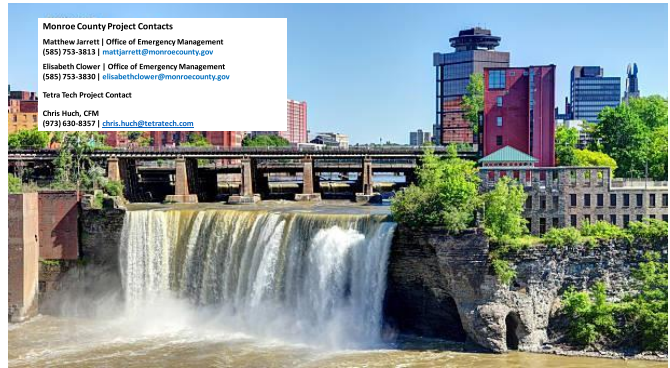
Hazard	
Obstacles	Opportunities
What is preventing the county and its communities to implement: <ul style="list-style-type: none"> ➢ Plans and Regulations <ul style="list-style-type: none"> • Codes, Ordinances, Planning Studies, Comprehensive Plans, Adaptation and Resiliency Plans ➢ Structure and Infrastructure Projects ➢ Natural Systems Protection ➢ Education and Awareness Programs ➢ Preparedness ➢ Others? 	What can the county and its communities implement in terms of: <ul style="list-style-type: none"> ➢ Plans and Regulations <ul style="list-style-type: none"> • Codes, Ordinances, Planning Studies, Comprehensive Plans, Adaptation and Resiliency Plans ➢ Structure and Infrastructure Projects ➢ Natural Systems Protection ➢ Education and Awareness Programs ➢ Preparedness ➢ Others?

Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)

Hazard: Flood \$ Minimal exposure to flood risk W Silt and debris buildup in streams can lead to localized flooding Ob Funding for culvert and catch basin maintenance Opps Installing stream gages	Hazard: Severe Winter Storm \$ Municipalities have the resources and experience to deal with winter weather W Aging equipment Ob Funding: limited staff for prolonged events Opps Shared services	Hazard: Severe Storms \$ Tree trimming programs are in place W Aging infrastructure; lack of underground utilities Ob Cost to retrofit existing utility infrastructure Opps Underground utilities; enhance public outreach program
--	--	---

Planning Partnership Next Steps

- Complete the SWOO survey by end of today
- Mitigation Strategy Workshop – Monday October 17, 2022 at 11:00 a.m.
ATTENDANCE IS MANDATORY
- Hold call with your assigned Tetra Tech planner to develop actions and complete annex by November 4
- Review Draft Plan - November
- Remember to continue to track In-Kind hours via online survey
 - If you need the link sent again, email chris.huch@tetratech.com



Monroe County Project Contacts
Matthew Jarrett | Office of Emergency Management
(585) 753-3813 | mattjarrett@monroecounty.gov
Elizabeth Cowie | Office of Emergency Management
(585) 753-3830 | elizabeth@monroecounty.gov

Tetra Tech Project Contact
Chris Huch, CFM
(973) 630-8357 | chris.huch@tetratech.com



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



Purpose of Meeting:	Planning Partnership Risk Assessment Meeting
Location of Meeting:	Teleconference Teams Meeting
Date of Meeting:	October 13, 2022 11:00am – 12:00pm
Attendees: See Participation Matrix	

Agenda Summary:

Item No.	Description	Action item(s):
1	Welcome and Introductions <ul style="list-style-type: none"> Meeting started at 10:00 am 	
2	In-Kind Tracking <ul style="list-style-type: none"> Attendees were reminded to fill out the in-kind tracking form for work completed outside of meetings 	<ul style="list-style-type: none"> In-kind tracker will be sent out by Tt via email
3	Project Status Update <ul style="list-style-type: none"> Project timeline is on track Mitigation Strategy Workshop should be attended by all participants. The draft plan will be posted for public review in mid November – 30 day period – send to DHSES early December 	<ul style="list-style-type: none"> Mitigation Strategy Workshop – Monday, 10/24 10am
4	Risk Assessment <ul style="list-style-type: none"> Each hazard of concern has a stand alone hazard profile Climate change is a new requirement for HMPs and included in the risk assessment Adaptive capacity is included in risk rankings as well. 	<ul style="list-style-type: none"> Continue to work with FEMA to obtain updated NFIP data
5	Risk Ranking Summary <ul style="list-style-type: none"> The Steering Committee changed the County-wide risk ranking for extreme temperature from high to medium and flood from medium to high. The County-wide rankings are as follows: <ul style="list-style-type: none"> Disease Outbreak: Low Drought: Medium Earthquake: Low Extreme Temperature: Medium Flood: High Hazardous Materials: Low Invasive Species: Low Landslide: Low Severe Storm: High Severe Winter Storm: High Wildfire: Low 	



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



	<ul style="list-style-type: none">Municipalities will receive their municipal specific risk rankings in a worksheet and are asked to provide feedback and modify according to local conditions.	
6	SWOO Exercise <ul style="list-style-type: none">Planning Partnership to complete a SWOO. https://www.surveymonkey.com/r/MonroeSWOO	<ul style="list-style-type: none">Request will be sent out via emailSubmit SWOO by end of week
7	Conclusion - The meeting concluded at 11:00 am	N/A



**MONROE COUNTY HAZARD MITIGATION PLAN UPDATE
MITIGATION STRATEGY WORKSHOP – AGENDA
MEETING DATE/TIME: October 17, 2022 – 11:00 am**



Mitigation Strategy Workshop

[Join Zoom Meeting](#)

<https://monroecounty->

[gov.zoom.us/j/81775748666?pwd=YjJOZ1BMRfhKQkp2U0ZhZkpSWU5HUT09](https://monroecounty.gov.zoom.us/j/81775748666?pwd=YjJOZ1BMRfhKQkp2U0ZhZkpSWU5HUT09)

Meeting ID: 817 7574 8666

Passcode: 01887469

One tap mobile

*+16468769923,,81775748666#,,,,*01887469# US (New York)*

*+16469313860,,81775748666#,,,,*01887469# US*

- Welcome and Introductions
- In-Kind Tracking Reminder
- Project Status Update
- Developing Mitigation Strategies
- Updating Previous Actions
- Using Mitigation Development Worksheets to Select Your Actions
- Action Worksheets
- Conclusion and Next Steps



Monroe County Hazard Mitigation Plan Update
Mitigation Strategy Workshop | October 17, 2022



TETRA TECH

1

Agenda

- Opening Remarks
- In-Kind Tracking Reminder
- Project Status Update
- Developing Mitigation Strategies
- Update Previous Actions
- Using Mitigation Development Worksheets to Select Your Actions
- Action Worksheets
- Conclusion and Next Steps

TETRA TECH

2

Opening Remarks

- Monroe County
- NYSDHSES
- FEMA



TETRA TECH

3

In-Kind Tracking- FEMA Grant Requirement

Monroe County HMP In-Kind Tracking

In-Kind Tracker

Monroe County received FEMA funding to update the Hazard Mitigation Plan (HMP). To meet the required match, the County will use In-kind services.

Please use this form to document your time spent working on the HMP. This includes attending meeting, conference calls, working on your municipal annex, reviewing sections of the plan, etc.

If you have any questions, please reach out to Chris Huch (chris.huch@tetratech.com | 973.830.0387).

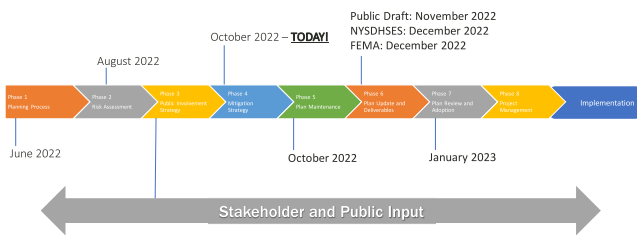
• Name

• Jurisdiction

TETRA TECH

4

Project Status Update



TETRA TECH

5

Public Outreach

- Help get the word out about the HMP
- www.monroecountynhmp.com
- Social media blasts
- HMP link on your department/agency website
- Stakeholder and Public Survey



TETRA TECH

6

Hazards of Concern for 2023 HMP

- Disease Outbreak
- Drought
- Earthquake
- Extreme Temperature
- Flood
- Hazardous Materials
- Infestation and Invasive Species
- Landslide
- Severe Storm
- Severe Winter Storm
- Wildfire



TETRA TECH

7

7

How do you reduce your risk?

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



TETRA TECH

8

8

Using your Mitigation Strategy to Reduce Risk

- What is a *Mitigation Strategy*?
 - A group of projects or actions to reduce the impacts of the hazards of concern on your community
- Terms to describe the *Mitigation Strategy* include:
 - *Mitigation Action Plan or Action Plan*
 - *Mitigation Projects or Initiatives or Actions*

Your Mitigation Strategy table is included in your annex of the plan. TWO of your actions must be detailed on Action Worksheets



TETRA TECH

9

9

FEMA Mitigation Action Types

<p> 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.</p>	<p> Natural systems protection projects minimize losses while also preserving or restoring the function of natural systems.</p>
<p> Structure and infrastructure projects involve modifying existing structures and infrastructure or constructing new structures to reduce the impact of hazards.</p>	<p> 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.</p>



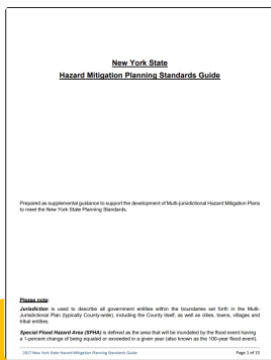
TETRA TECH

10

10

NYS DHSES Requirements

- Each participant must meet NYS DHSES requirements outlined in the 2017 New York State Hazard Mitigation Planning Standards
- <https://www.dhSES.ny.gov/system/files/documents/2021/12/2017-nys-mitigation-planning-standards-guide.pdf>



NYS Requirements for Mitigation Strategy Update

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

TETRA TECH

12

12

11

NYS Requirements for Mitigation Strategy Update



- MUST identify **evacuation routes** and **shelters** in the plan
 - Identify actions to make **evacuation routes and shelters viable**, if not already
- MUST identify **temporary housing** and **permanent housing** locations in the plan
 - Identify actions to develop these locations, even if outside of jurisdictional boundaries

TETRA TECH

13

13

13

NYS Requirements for Mitigation Strategy Update



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

TETRA TECH

14

14

Connecting to the Mitigation Strategy



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

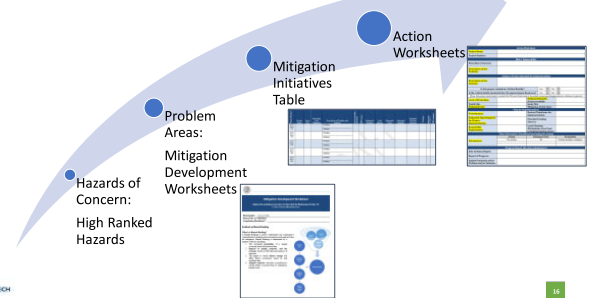


TETRA TECH

15

15

The roadmap to a strong mitigation strategy



TETRA TECH

16

16

What are we focusing on for the mitigation strategy?



- Stronger connection between the risk assessment and mitigation strategy
- More specific actions
 - Specific projects, in specific locations, in a specific timeframe
- Diverse actions
 - Focus on highest ranked hazards but also look to address other hazards
 - Include a variety in the types of actions

TETRA TECH

17

17

Update the Mitigation Strategy



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

TETRA TECH

18

18

Update the Mitigation Strategy



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

Quality Over Quantity!!



19

Making Previous Actions More Specific

20

20

Why we must update our actions...



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



21

Example: Previous problem and action



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



22

Example: Improved problem and action



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



23

Example: EVEN MORE Improved problem and action



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



24



25

How to Fill Out Your Mitigation Strategy Worksheet



26

Mitigation Development Worksheet

Update this worksheet and return to Chris Hack by Wednesday October 19.
Email: chris.hack@tetra-tech.com

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

Feedback on Hazard Ranking

What is a Hazard Ranking?
A Hazard Ranking is used to understand your community's vulnerabilities to hazard risks to prioritize projects and activities for mitigation. Hazard Ranking is determined by a number of factors including:

1. The calculated probability of a hazard occurrence 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: describes a jurisdiction's current ability to prevent from or withstand a hazard event.



26

Confirm Your Hazard Rankings



27

What is my Hazard Ranking?

The following table represents 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.

Hazard	Adaptive Capacity	Probability	Impacts	Hazard Ranking	Adjusting the Ranking?
Extreme Drought	Medium	Medium	Medium	Medium	
Coastal Flooding	Medium	Low	Medium	Medium	
Extreme Heat	Medium	Medium	Medium	Medium	
Extreme Winter	Medium	Low	Medium	Medium	
Flash Flooding	Medium	Low	Medium	Medium	
Subsidence and Groundwater Depletion	Low	Low	Low	Low	
Wildfires	Medium	Low	Medium	Medium	

Evacuation and Sheltering

Evacuation and sheltering measures must be in place and available for public awareness to protect residents and mitigate risk, stress and personal hardship during hazard events.

Your municipality must identify routes and procedures to evacuate citizens prior to and during an event and identify shelters for evacuated citizens.

Do you have official (signed) routes in place and procedures to evacuate citizens prior to and during an event?

Are any evacuation routes prone to flooding or lava? (Comments: _____)

Please identify your community's routes and procedures to evacuate your residents prior to and during an event.



27

Identify Evacuation/ Sheltering Procedures and Shelter Locations



28

Evacuation and Sheltering

Evacuation and sheltering measures must be in place and available for public awareness to protect residents and mitigate risk, stress and personal hardship during hazard events.

Your municipality must identify routes and procedures to evacuate citizens prior to and during an event and identify shelters for evacuated citizens.

Do you have official (signed) routes in place and procedures to evacuate citizens prior to and during an event?

Are any evacuation routes prone to flooding or lava? (Comments: _____)

Do you have official (signed) sheltering procedures available for public awareness and for use during an event?

Do sheltering measures account for your community's needs (population, accessibility to people with disabilities, etc.)? (Comments: _____)

Do you have a list of designated emergency shelters located in your community? Please include facility name, address, and permissions.

Site Name	Address	Capacity	ADA Compliant?	ADA Certified?	Shelter Type of Shelter (e.g., Public Building, etc.)	Other Pertinent Info



28

Identify Temporary and Permanent Housing Locations



29

Temporary Housing

The jurisdiction must identify sites for the placement of temporary housing units to house residents displaced by a disaster. While sites may be identified through public input, it is critical that each jurisdiction identify a minimum number of sites to accommodate for a temporary housing location that is separate from the jurisdiction in which they live or work or a separate jurisdiction to ensure displacement is not a problem.

Examples of potential locations include existing multi-family housing, recreational vehicles (campgrounds), public or private land in public use, vacant rental units, hotels, or a site nearby accessible for the placement of temporary housing units. Each site must:

- Be compliant with the New York State Uniform Fire Prevention and Building Code.
- Be constructed with a first floor elevation at least 2 feet above the Base Flood Elevation (BFE) zone.
- If located in a unincorporated jurisdiction, include dimensions above plans with residents and ensure procedures are consistent with local regulations and emergency plans, recovery plans, evacuation routes, etc. and
- Consider noise, wastewater, electrical, and fire/safety accessibility.

In the following table, identify sites available for placing temporary housing units. Please include the site name, address, infrastructure and utilities available on site, the number of housing units the site can hold, the type of site (campground, parking lot, etc.), and any other notes related to meet NY State Fire Prevention and Building Code. If there are no viable sites, the municipality needs to identify potential mitigation actions to ensure conditions.

Site Name	Site Address	Address/Utility Available (water/sewer/gas, etc.)	Capacity (number of units)	Type	Other Pertinent Info (e.g., ADA, ADA Certified, etc.)

Permanent Housing

Structures located in the FEMA map need to be relocated, or new properties must be built near severely damaged properties are identified. Jurisdictions must identify all suitable sites currently owned by the jurisdiction, and potential sites under private ownership that meet applicable local zoning requirements and floodplain laws.

Consideration should be given to allowing residents of a given jurisdiction to continue to reside there. However, relocation of the disaster site need to include site development alternatives of such suitable locations are not available in a given jurisdiction.



29

Review Potential Actions and Identify New Actions



30

Public and Stakeholder Feedback

The following table specific projects, areas and potential projects identified by residents and stakeholders shared through our online survey for your community.

Project	Stakeholder Comments

Capability Assessment / Mitigation Actions

If you have identified specific projects, areas and potential projects, are there actions that you would like to include in your mitigation strategy to strengthen your capabilities? (see strengthened capabilities, resources for staff, resources for projects, etc.)

Project	Stakeholder Comments

Critical Facilities - Backup Power

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

Project	Stakeholder Comments



30

How do you fill in the Worksheet?



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

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



31

How do you fill in the Worksheet?



- Review the pre-populated information on your worksheet
 - Information from worksheets submitted to date
 - Input from public/stakeholder surveys
 - Risk assessment results
- Determine the problems that you will pursue solutions for
- Add as much detail as possible to the problems and develop detailed solutions
- **Return worksheet to Chris Huch at Tetra Tech by this Wednesday, October 18** for discussion during your annex development meeting

We will schedule meetings this week



32



33

Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	Staff Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Source	Priority	Progression	CDE Category
2020: Man: 001			Problem:										
2020: Man: 002			Solution:										
2020: Man: 003			Problem:										
2020: Man: 004			Solution:										
2020: Man: 005			Problem:										
2020: Man: 006			Solution:										
2020: Man: 007			Problem:										
2020: Man: 008			Solution:										

34



35

Action Worksheets



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



36

Action Worksheet

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

Action Worksheet

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

Action Worksheet

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

Action Worksheet

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

Action Worksheet

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

Action Worksheet

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

Action Worksheet

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

Action Worksheet

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

Action Worksheet

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

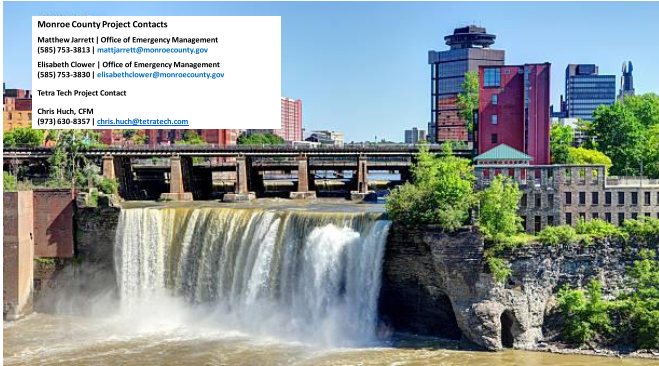
Evaluation of Actions

- Consider the benefits and costs
 - Consider the implementation timeline
 - Consider the areas/problems of greatest need
 - Consider the funding sources
 - High/Medium/Low priority
- 1 = highlight effective or feasible
 0 = neutral
 -1 = ineffective or not feasible

Schedule

- Complete Mitigation Development Worksheet and return to Chris Huch at Tetra Tech Planner Before October 19th.
- Work with Tetra Tech Planner to Complete Actions and Annex following meeting
- Draft Plan to Steering Committee by middle of November
- Final draft plan to NYS DHSES and FEMA - December 2022







Monroe County
Hazard Mitigation Plan Update
Meeting Notes



Purpose of Meeting:	Mitigation Strategy Workshop
Location of Meeting:	Teleconference Zoom Meeting
Date of Meeting:	October 17, 2022 11:00 am – 12:00 pm

Attendees:

See Participation Matrix

Agenda Summary:

Item No.	Description	Action item(s):
1	<p>Welcome</p> <ul style="list-style-type: none"> • The meeting started at 11:00 am. • Matt Jarrett thanked participants for attending the meeting and participating in the planning process. • Mr. Huch welcomed attendees. Mr. Huch described the purpose of the meeting, which was to review the hazard mitigation planning process and develop mitigation strategies. A worksheet was emailed to each municipality to work off of during the meeting. • Paul Hoole from FEMA, and Roland Paperman and Shannon Clarke were present from DHSES. 	
2	<p>Developing Mitigation Strategies</p> <ul style="list-style-type: none"> • Mr. Huch reviewed the 2023 hazards of concern (Disease Outbreak, drought, Earthquake, Extreme Temperature, Flood, Hazardous Materials, Infestation and Invasive species, landslide, Severe storm, Severe Winter storm, Wildfire) and discussed different methods of risk reduction. • Mr. Huch then reviewed the NYS requirements for updating the mitigation strategy as well as FEMA Mitigation Action Types and explained what a mitigation strategy is. • Each jurisdiction will need to meet the following requirements: <ul style="list-style-type: none"> ○ Each jurisdiction must develop at least two Action Worksheets. ○ If the jurisdiction has a regulatory floodplain, one worksheet must address flooding ○ Repetitive and Severe Repetitive Loss Properties need an action with specific details (street or neighborhood names). ○ Critical facilities in the 100-year (1% annual chance) floodplain need to be protected to the 500-year flood event (0.2% annual chance) or worst-case scenario ○ Plan for climate change and propose actions to address ○ Evacuation routes and shelters must be made viable. ○ Temporary and permanent housing locations must be identified. 	



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



	<ul style="list-style-type: none"> ○ Proposed actions must have specific information when discussing the problem and solution and identify information such as: <ul style="list-style-type: none"> ● Project lead ● Estimated cost ● Timeline ● Whether the action involves a critical facility ○ All required items are identified within the proposed action table. Each cell of table MUST be filled out ● Mr. Huch explained that mitigation actions must have a clear connection to the risk and capability assessments. ● Mr. Huch reviewed the types of mitigation actions that should be considered: <ul style="list-style-type: none"> ○ Structure and Infrastructure Projects ○ Local Plans and Regulations ○ Natural Systems Protection Projects ○ Education and Awareness Programs ● Mr. Huch explained to participants that carryover actions must be updated to be made more specific and more diverse. Mr. Huch provided examples on how to update carryover actions to meet the current standards of the HMP planning process. 	
3	<p>Mitigation Action Development Worksheet</p> <ul style="list-style-type: none"> ● Mr. Huch explained how participants should fill out the Mitigation Action Development Worksheet. The worksheet is designed to gather as much information as possible from municipal participants so Tetra Tech planners can develop mitigation actions for municipal review and input. The worksheet is to be filled out and returned to Tetra Tech after the municipality completes it. ● Municipalities should emphasize quality over quantity. ● Mr. Huch reviewed the proposed action table and action worksheet and detailed the information necessary to complete each. Mr. Huch reviewed how municipal representatives should make use of problem statements emailed to them by their Tetra Tech planners, identify additional problem areas, and brainstorm potential mitigation actions. 	<ul style="list-style-type: none"> ● Municipalities should return their Mitigation Action Development Worksheet in once week. ● Tetra Tech will set up small group meetings with municipalities to identify additional actions and complete their annexes
4	<p>Comments</p> <ul style="list-style-type: none"> ● Paul Hoole from FEMA: Grant applications must be submitted by end of January, so FEMA approving HMP is important. Adopt plan before we wait for FEMA approval, getting plan adopted sooner in January is crucial in getting funding, so adopting it sooner will benefit jurisdictions. ● Steve Schultz: In terms of streams, many overflow banks and damage is hard to quantify. How do we characterize how we will mitigate it and display that on the worksheet? Difficulty putting a dollar sign to specific mitigation practices. Mr. Huch noted that municipalities can 	



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



	<p>note “we will have a study and do this” or “this is what we are assuming based off of the information we know.” and include several phases.</p> <ul style="list-style-type: none">• Mr. Huch emphasizes that DSHES and FEMA are the HMP reviewers, but they are also partners, and to include them in questions and concerns about projects.	
9	<p>Conclusion</p> <ul style="list-style-type: none">• The meeting ended at 12:00pm.	



**MONROE COUNTY HAZARD MITIGATION PLAN UPDATE
STEERING COMMITTEE MEETING – AGENDA
MEETING DATE/TIME: November 22, 2022 – 1:00 pm**



Steering Committee Draft Plan Review Meeting

Join Zoom Meeting

<https://monroecounty-gov.zoom.us/j/88938098607?pwd=eWxiYTB5c2o5R3FJUkl1VmJmZHpVdz09>

Meeting ID: 889 3809 8607

Passcode: 03061146

One tap mobile

*+16469313860,,88938098607#,,,,*03061146# US*

*+16468769923,,88938098607#,,,,*03061146# US (New York)*

- Welcome and Introductions
- Draft Plan Review
 - What's new
 - Section-by-section content overview
 - Review guidelines
 - Finalizing the plan
- Conclusion and Next Steps



Monroe County
Hazard Mitigation Plan Update
Steering Committee Draft Plan Review Meeting | November 22, 2022



1

Agenda

- Introduction
- Draft Plan Review
 - What's new
 - Section-by-section content overview
 - Review guidelines
 - Finalizing the plan
- Conclusion and Next Steps



2

Introduction

- Opening Remarks
 - Monroe County
 - Roll Call



3

In-Kind Tracking- FEMA Grant Requirement

Monroe County HMP In-Kind Tracking

In-Kind Tracker

Monroe County received FEMA funding to update the Hazard Mitigation Plan (HMP). To meet the required match, the County will use In-kind services.

Please use this form to document your time spent working on the HMP. This includes attending meeting, conference calls, working on your municipal annex, reviewing sections of the plan, etc.

If you have any questions, please reach out to Chris Huch (chris.huch@tetratech.com | 973.830.3357).

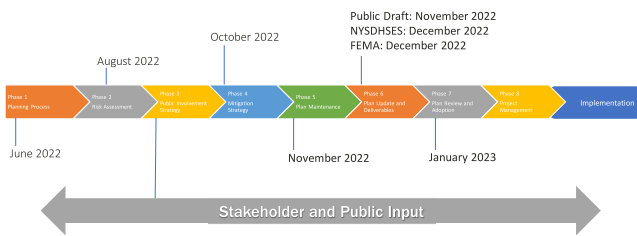
• Name

• Jurisdiction



4

Project Status Update



5

What's New in the 2023 Update?

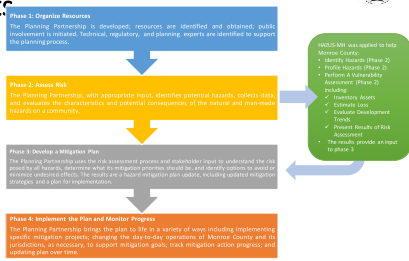
- Critical facilities – updated inventory and included community lifelines
- Hazards of concern – incorporated new hazard (Disease Outbreak), removed non-natural hazards covered in the CEMP (i.e. Civil Unrest), more concise hazard profiles, included recent events
- Climate change impacts and adaptive capacity to reduce vulnerability used in hazard ranking
- Jurisdictional annexes – each municipality and the County have their own 'chapter'
 - Enhanced capability assessment including integration
 - Fewer but more detailed mitigation actions
 - Mitigation action worksheets – at least two for FEMA HMA grant eligible projects



6

Section Contents

- Volume I
 - Executive Summary
 - Section 1 – Introduction
 - Mitigation planning overview
 - Participating jurisdictions
 - 2023 updates and summary of changes since last plan
 - Section 2 – Plan Adoption Process
 - Section 3 – Planning Process
 - Plan participants (committees, stakeholders, etc.)
 - Activities
 - Ongoing process



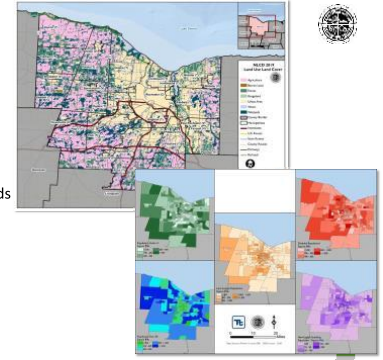
TETRA TECH

7

7

Section Contents

- Section 4 – County Profile
 - History & Physical Setting
 - Major Hazard Event History
 - Population and Demographics
 - General Building Stock
 - Land Use and Population Trends
 - Critical Facilities & Lifelines
- Section 5 – Risk Assessment
 - Hazards of concern
 - Hazard ranking
 - Hazard profiles



TETRA TECH

8

Section Contents

- Section 6 – Capability Assessment
 - Capability Assessment
 - Available plans, programs, & resources
 - Administrative and technical capabilities
 - Fiscal capabilities
 - Plan integration
 - Mitigation Strategies
 - Past accomplishments
 - Goals and Objectives
 - Mitigation strategy development and update
 - Action identification
 - Evaluation and prioritization
 - Benefit/cost review

- 2023 Goals**
1. Coordinate hazard mitigation programs and other planning efforts that affect the County.
 2. Prevent hazards from negatively impacting new development.
 3. Protect life, property, and the environment from current and future hazard impacts.
 4. Increase public awareness of current and future hazards, their impacts, and ways to reduce vulnerability through education and outreach.
 5. Protect, preserve, and restore the functions of natural systems.

TETRA TECH

9

9

Section Contents

- Section 7 – Plan Maintenance
 - HMP Coordinator
 - Ongoing Planning Partnership – meet annually to discuss HMP
 - Monitoring
 - Continuous evaluation and progress reports
 - FEMA action worksheets and BAToolSM
 - Updating
 - Integrating the HMP with existing and future programs
 - Continued public involvement

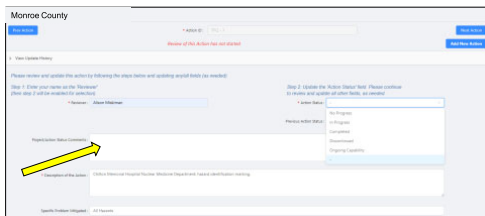


TETRA TECH

10

BAToolSM

- Online progress reporting for individual mitigation actions – pre-populated by Tetra Tech



TETRA TECH

11

11

Plan Maintenance Matrix

Task	Approach	Timeline	Responsibility	Support Responsibility
Monitoring	Preparation of status updates and action implementation tracking as part of submission for Annual Progress Report.	Meet annually or upon major update to Master Plan or major disaster declaration	Jurisdictional points of contact identified in Section 8 (Planning Partnership) and Section 9 (Jurisdictional Annexes)	Jurisdictional implementation lead identified in Section 8 (Planning Partnership) and Section 9 (Jurisdictional Annexes)
Integration	In order for integration of mitigation principles action to become an organic part of the ongoing county and municipal activities, the County will incorporate the distribution of the safe growth worksheet for annual review and update by all participating jurisdictions.	April each year with interim email reminders to address integration in county and municipal activities.	HMP Coordinator and jurisdictional points of contact identified in Section 8 (Planning Partnership) and Section 9 (Jurisdictional Annexes)	HMP Coordinator
Evaluation	Review the status of previous actions as submitted by the monitoring task lead and support to assess the effectiveness of the plan; compile and finalize the Annual Progress Report.	Finalized progress report completed by October 14 of each year	Steering Committee; Plan Maintenance element	Jurisdictional points of contacts identified in Section 9 (Jurisdictional Annexes)
Update	Reconvene the planning partners, at a minimum, every 5 years to guide a comprehensive update to review and revise the plan.	Every 5 years or upon major update to Master Plan or major disaster	Monroe County HMP Coordinator	Jurisdictional points of contacts identified in Section 9 (Jurisdictional Annexes)

TETRA TECH

12

Section Contents

- Volume II
 - **Section 8 – Planning Partnership**
 - Participating jurisdictions
 - Introduction to jurisdictional annexes
 - **Section 9 – Jurisdictional Annexes**
 - Points of Contact and Who Participated
 - Municipal Profile
 - Capabilities
 - NFIP Participation
 - Risk Assessment
 - Critical Facilities
 - Status of Past Mitigation Actions
 - Current Mitigation Actions



13

Section Contents - Appendices

- **Appendices**
 - Appendix A Adoptions
 - Appendix B Meeting Documentation
 - Appendix C Public and Stakeholder Outreach Documentation
 - Appendix D Participation Matrix
 - Appendix E Action Worksheet Template and Instructions
 - Appendix F Plan Maintenance Tools
 - Appendix G Critical Facility Inventory
 - Appendix H Risk Assessment Supplementary Data
 - Appendix I NYS DHSES Planning Guidance
 - Appendix J Linkage Procedures
 - Appendix K Dam Supplement



14

Review the Draft Plan

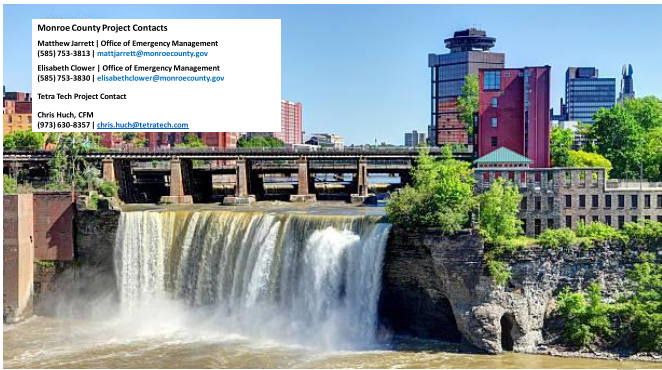
- The plan has been uploaded to DropBox
- Input requested
 - Provide additional or specific information
 - Correct errors or omissions
- The entire plan will be posted on the Monroe County HMP website for a 30-day review period on Wednesday, November 23rd
 - You can review sections of the plan during the public review and we will incorporate any revisions into the final deliverable to the State and FEMA
- Public feedback to be incorporated as appropriate prior to submittal to NJOEM/FEMA for their review.
 - We will hold a brief meeting to discuss public comments and how to incorporate if necessary



15



16



17



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



Purpose of Meeting:	Steering Committee Draft Plan Review Meeting
Location of Meeting:	Teleconference Teams Meeting
Date of Meeting:	November 22, 2022 1:00pm – 2:00pm

Attendees:

- Timothy Henry, Monroe County Office of Emergency Management
- Matthew Jarrett, Monroe County Office of Emergency Management
- Elisabeth Clower, Monroe County Office of Emergency Management
- Clement Chung, Monroe County Department of Environmental Services, Deputy Director
- Andrew Sansone, Monroe County Department of Environmental Services
- Rochelle Bell, Monroe County Department of Planning and Development, Senior Associate Planner
- Kelly Emerick, Monroe County Soil & Water Conservation District, Executive Director
- Scott McCarty, Monroe County DES-GIS Services Division, Operations Manager
- Chris Huch, Tetra Tech, Project Manager
- Lt. Sam Hillman, Monroe Community College, Public Safety
- David Inzana, Hilton Central School District
- Sarah Ruekberg, City of Rochester Fire Department
- Jamie Renner, City of Rochester Fire Department, Captain
- Erin Magee, Irondequoit DPW, Deputy Commissioner

Agenda Summary:

Item No.	Description	Action item(s):
1	Welcome and Introductions <ul style="list-style-type: none"> • Meeting started at 1:00 pm 	
2	In-Kind Tracking <ul style="list-style-type: none"> • Attendees were reminded to fill out the in-kind tracking form for work completed outside of meetings 	<ul style="list-style-type: none"> • In-kind tracker will be sent out by Tt via email
3	Draft Plan Review <ul style="list-style-type: none"> • Mr. Huch discussed the updates present in the 2023 plan: <ul style="list-style-type: none"> ○ Critical facilities – updated inventory and included community lifelines ○ Hazards of concern – incorporated new hazard (Disease Outbreak), removed non-natural hazards covered in the CEMP (i.e. Civil Unrest), more concise hazard profiles, included recent events ○ Climate change impacts and adaptive capacity to reduce vulnerability used in hazard ranking ○ Jurisdictional annexes – each municipality and the County have their own ‘chapter’ <ul style="list-style-type: none"> ▪ Enhanced capability assessment including integration ▪ Fewer but more detailed mitigation actions ▪ Mitigation action worksheets – at least two for FEMA HMA grant eligible projects 	<ul style="list-style-type: none"> • Steering Committee members to review plan sections as they are able to and send feedback to Tetra Tech. • Tetra Tech to post plan for public review and provide language for publicizing the posting.



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



- Mr. Huch ran through the sections of the HMP:
 - Section 1 – Introduction
 - Mitigation planning overview
 - Participating jurisdictions
 - 2023 updates and summary of changes since last plan
 - Section 2 – Plan Adoption
 - Section 3 – Planning Process
 - Plan participants (committees, stakeholders, etc.)
 - Activities
 - Ongoing process
 - Section 4 – County Profile
 - History & Physical Setting
 - Major Hazard Event History
 - Population and Demographics
 - General Building Stock
 - Land Use and Population Trends
 - Critical Facilities & Lifelines
 - Section 5 – Risk Assessment
 - Hazards of concern
 - Hazard ranking
 - Hazard profiles
 - Section 6 – Capability Assessment
 - Capability Assessment
 - Available plans, programs, & resources
 - Administrative and technical capabilities
 - Fiscal capabilities
 - Plan integration
 - Mitigation Strategies
 - Past accomplishments
 - Goals and Objectives
 - Mitigation strategy development and update
 - Action identification
 - Evaluation and prioritization
 - Benefit/cost review
 - Section 7 – Plan Maintenance
 - HMP Coordinator
 - Ongoing Planning Partnership – meet annually to discuss HMP
 - Monitoring
 - Continuous evaluation and progress reports
 - FEMA action worksheets and BAToolSM
 - Updating
 - Integrating the HMP with existing and future programs
 - Continued public involvement



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



	<ul style="list-style-type: none"> ○ Section 8 – Planning Partnership <ul style="list-style-type: none"> ▪ Participating jurisdictions ▪ Introduction to jurisdictional annexes ○ Section 9 – Jurisdictional Annexes <ul style="list-style-type: none"> ▪ Points of Contact and Who Participated ▪ Municipal Profile ▪ Capabilities ▪ NFIP Participation ▪ Risk Assessment ▪ Critical Facilities ▪ Status of Past Mitigation Actions ▪ Current Mitigation Actions ○ Appendix A Adoptions ○ Appendix B Meeting Documentation ○ Appendix C Public and Stakeholder Outreach Documentation ○ Appendix D Participation Matrix ○ Appendix E Action Worksheet Template and Instructions ○ Appendix F Plan Maintenance Tools ○ Appendix G Critical Facility Inventory ○ Appendix H Risk Assessment Supplementary Data ○ Appendix I NYS DHSES Planning Guidance ○ Appendix J Linkage Procedures ○ Appendix K Dam Supplement ● Mr. Huch reminded the Steering Committee that the plan has been uploaded to DropBox. The Committee is requested to provide input by providing additional or specific information and helping correct errors or omissions. ● The entire plan will be posted on the Monroe County HMP website for a 30-day review period on Wednesday, November 23rd. The County and municipalities will post on their websites and social media to announce the posting of the plan. ● The Steering Committee can review sections of the plan during the public review. Tetra Tech will incorporate any revisions into the final deliverable to the State and FEMA. Public feedback to be incorporated as appropriate prior to submittal to NYSDHSES/FEMA for their review. The Committee will hold a brief meeting as necessary to discuss public comments and how to incorporate if necessary. 	
4	<p>Questions</p> <ul style="list-style-type: none"> ● Mr. Sansone asked the process for adoption. Mr. Huch explained that municipalities will have a year to adopt but the push will be to do so within the first few months. ● Mr. Chung asked if the HMP would be represented at the FEMA FIRM Open House. Mr. Huch explained that there will be information available at the Open House (handout and QR code link to the HMP website). 	



Monroe County
Hazard Mitigation Plan Update
Meeting Notes



	<ul style="list-style-type: none">• Mr. Sansone asked what the maintenance procedures are for the HMP. Mr. Huch briefly presented on the BATool which will provide an electronic platform for reporting on progress of actions. Each municipality will have log in information to report on their actions. The County will have access to all municipal data.• Mr. Jarrett asked for an update on NFIP data request to FEMA. Mr. Huch responded that the data request is being processed by FEMA but the timeline for delivery is still unknown. Mr. Huch suggested that the determination of if and how to use the data should be dependent on the date the data is received. Mr. Jarrett agreed with this assessment.	
7	Conclusion - The meeting concluded at 1:50 pm	



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 Section 3 (Planning Process). Public and stakeholder input has been incorporated throughout this HMP as appropriate, as identified in Section 3 and the References section, as well as within specific mitigation initiatives identified within the jurisdictional annexes (Section 9). 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.

C.1 Monroe County Citizen Survey Results

This section contains information and results gathered from the Monroe County Citizen 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 100 respondents completed this survey over a period of four months during the planning process. The survey was available on Monroe County website and the HMP website at: <https://www.monroecountynyhmp.com/>. The survey results are provided in the following pages, with personal information redacted.



C.2 Stakeholder Surveys

In addition to collecting information from residents of Monroe 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.



C.3 Neighboring County Survey

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



C.4 Website and Social Media Posts

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

Figure C-1. Monroe County OEM Survey and October Meetings Facebook post

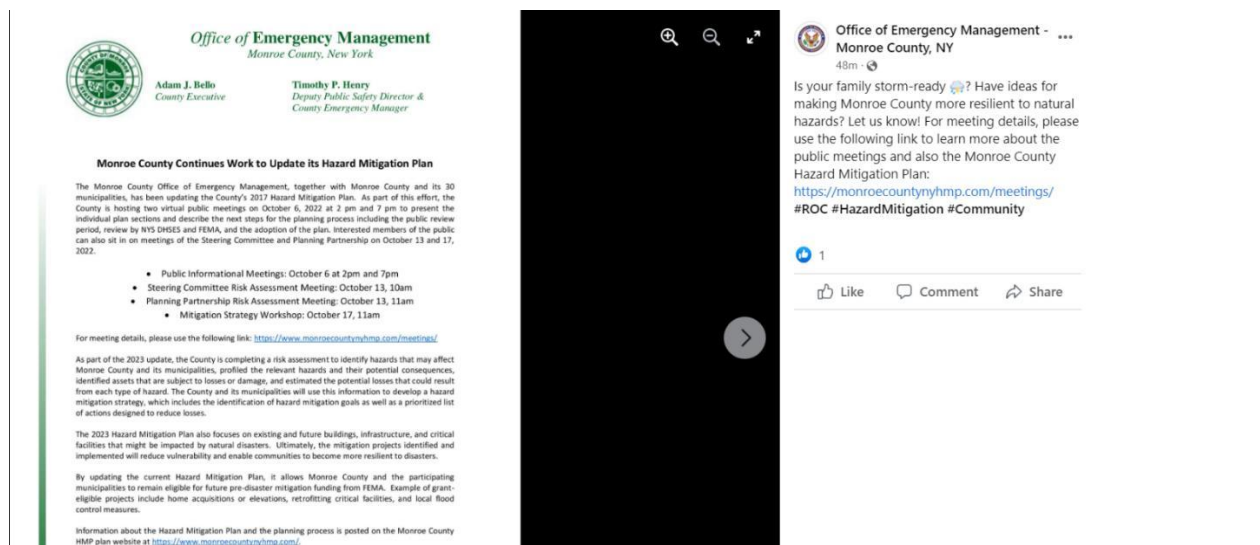


Figure C-2. Monroe County OEM Survey and October Meetings Facebook post

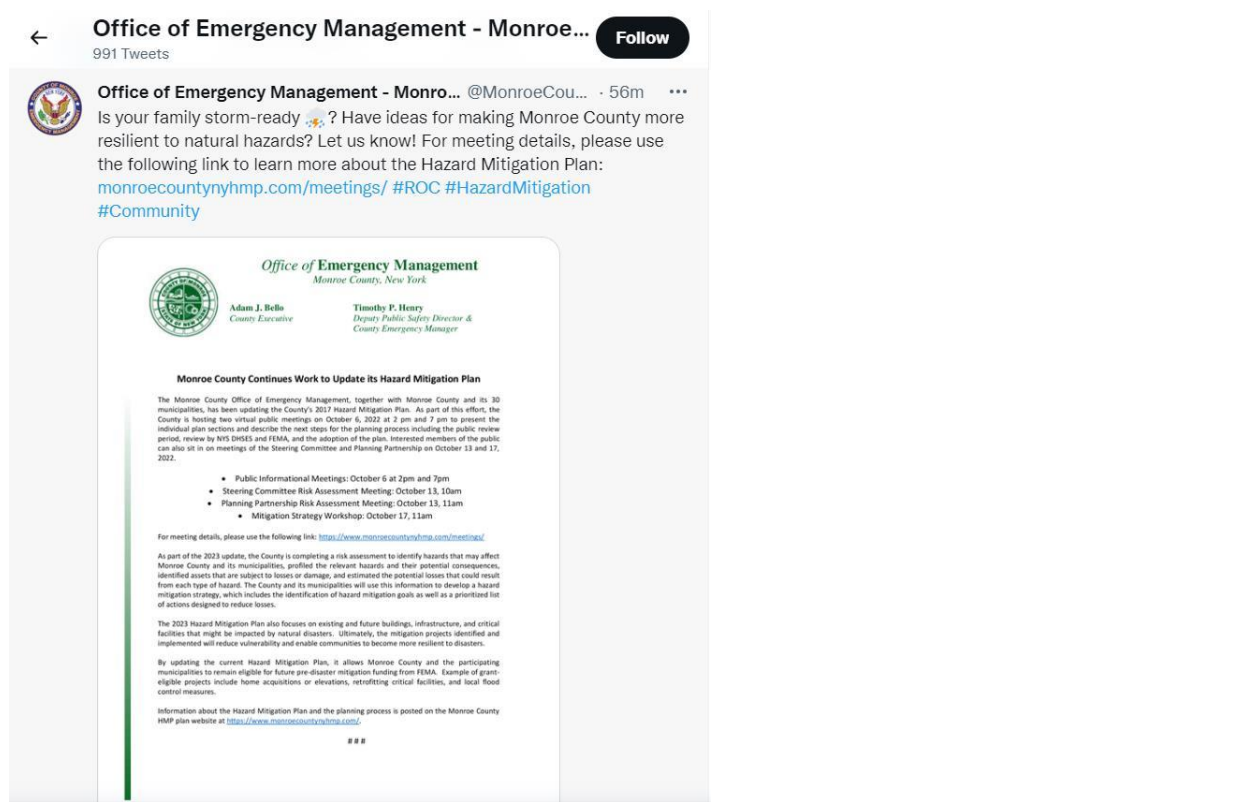




Figure C-3. Monroe County Soil & Water Conservation District Public Survey Facebook Post



Figure C-4. Town of Perinton Instagram Story and Survey Link





Figure C-5. Town of Perinton Facebook post and Survey Link

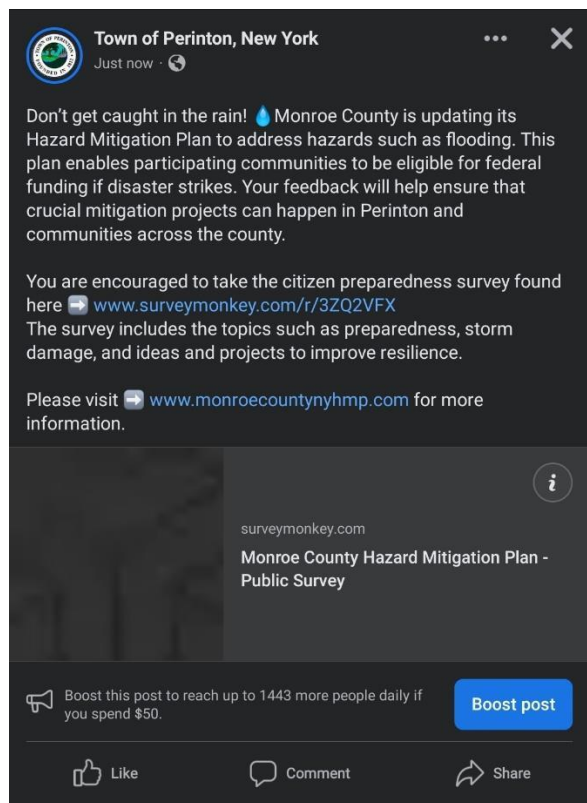


Figure C-6. Town of Perinton Instagram post and Survey Link





Figure C-7. Town of Perinton Twitter post and Survey Link



Figure C-8. Public Notice of Public Meetings

NOTICE OF PUBLIC MEETING

Date and Time(s): October 6th, 2022 at 2PM & 7PM

Meeting Location: Monroe County Office of Emergency Management, Emergency Operations Center, 1190 Scottsville Road, Suite #200, Rochester, NY 14624

ZOOM link: 2PM:
<https://monroecounty.gov.zoom.us/j/83942435225>

Dial In: 646-931-3860 Meeting ID: 83942435225

7 P M:
<https://monroecounty.gov.zoom.us/j/84528439089>

Dial In: 646-931-3860 Meeting ID: 84528439089

All Monroe County, NY residents are invited to attend a Public Meeting hosted by the Monroe County Hazard Mitigation Plan Steering Committee, its staff and consultants to assist and contribute in updating the 2023 Hazard Mitigation Plan for Monroe County and its thirty municipalities. The 2023 Hazard Mitigation Plan focuses on existing and future buildings, infrastructure, and critical facilities that could be impacted by natural disasters. The mitigation projects identified and implemented will reduce vulnerability and enable communities to become more resilient to disasters.

The update to the Hazard Mitigation Plan will allow the County and participating jurisdictions to continue to be eligible for future pre-disaster mitigation funding from FEMA. For more information about the Hazard Mitigation Plan, please go to the Monroe County HMP plan website at monroecountynyhmp.com.

12157178 9-23-11





Figure C-9. Town of Chili Website and Survey Link

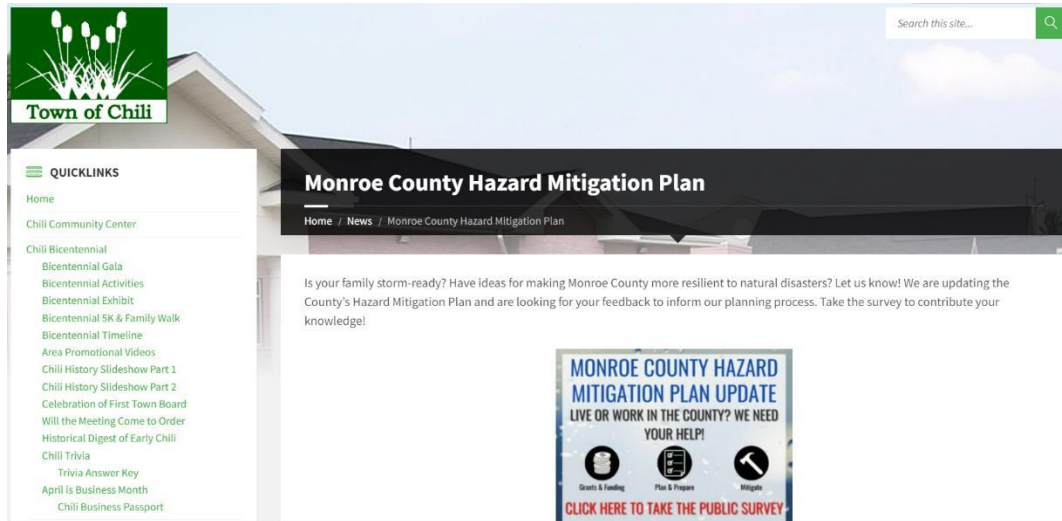




Figure C-10. Town of Ogdén Website and Survey Link



Figure C-11. Town of Penfield Facebook post and Survey Link

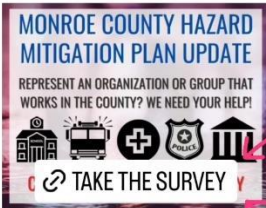




Figure C-12. Town of Perinton Instagram Story and Survey Link



Monroe County Hazard Mitigation Plan Update



Welcome to the Monroe County Hazard

Mitigation Plan (HMP) Website. This website provides project updates, resources, and links to hazard mitigation in support of the HMP update.

The goal of the project is to save lives and property through the reduction of hazard vulnerability for the entire county. During the course of this planning project county

Figure C-13. Town of Parma Website

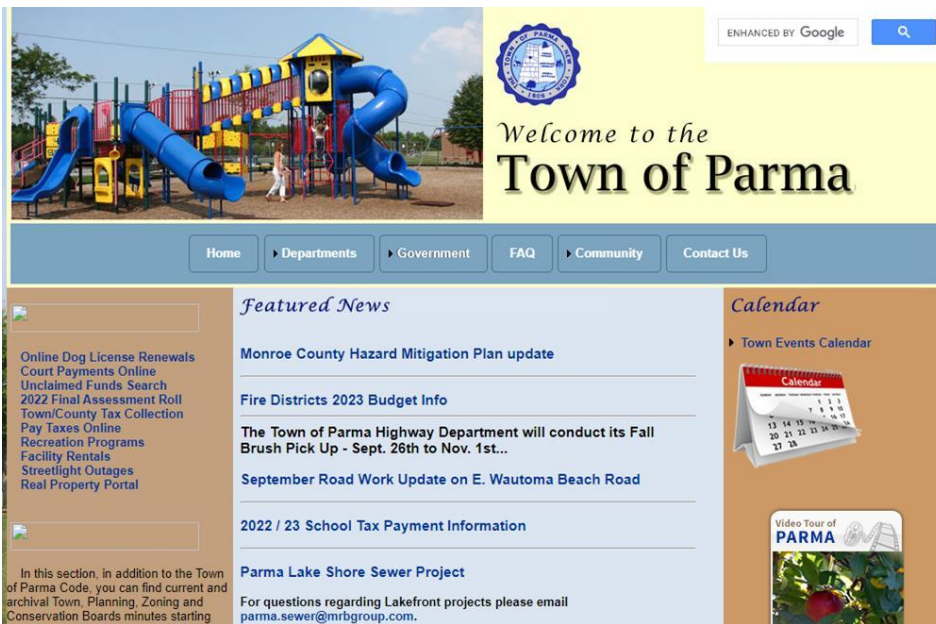




Figure C-14. Village of Fairport Instagram post and Survey Link

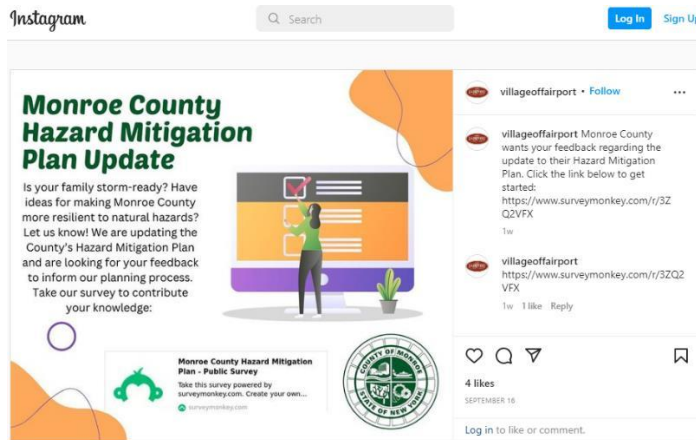


Figure C-15. Village of Fairport Facebook post and Survey Link

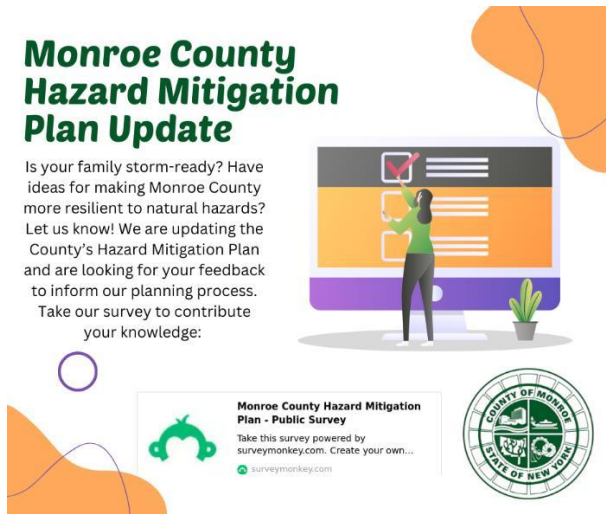
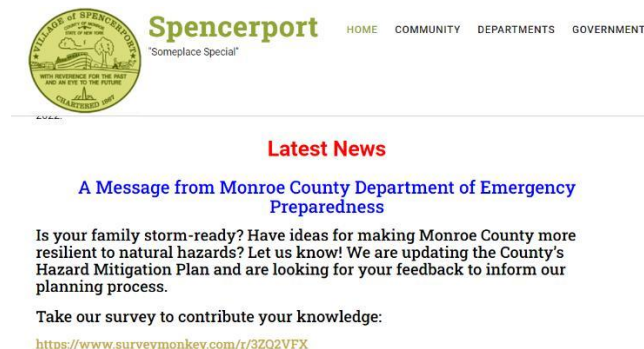


Figure C-16. Village of Fairport Twitter post and Survey Link





Figure C-17. Village of Spencerport Website and Survey Link



The screenshot shows the homepage of the Village of Spencerport website. At the top left is the Village of Spencerport seal. The main header includes the name "Spencerport" with the tagline "Someplace Special" and navigation links for HOME, COMMUNITY, DEPARTMENTS, and GOVERNMENT. Below the header is a "Latest News" section with a link to "A Message from Monroe County Department of Emergency Preparedness". The message text asks if the family is storm-ready and encourages participation in a survey to update the Hazard Mitigation Plan. A survey link is provided: <https://www.surveymonkey.com/r/3ZQ2VFX>.

Figure C-18. Village of Webster Website and Survey Link



The screenshot shows the homepage of the Village of Webster website. It features a search bar and a navigation menu with links for Home, About Us, Government, Historic Preservation, Services, Contact, Links, Gallery, and NEBD. The main content area has a "Welcome to the Village of Webster website!" message and contact information. Below this, there are two promotional boxes: one for "Help Shape the Future of our Village!" with a link for more information, and another for "Monroe County Hazard Mitigation Plan Update" with a link to a "Natural Hazard Survey". At the bottom, there are links for "2022 Fall Events" and "Monroe County Project Website".

Figure C-19. Town of Webster Facebook post and Survey Link



The screenshot shows a Facebook post from the Town of Webster, NY. The post text states: "Monroe County is updating its Hazard Mitigation Plan. This plan enables participating communities to be eligible for federal funding to rebuild stronger after disaster strikes. Your feedback helps ensure that crucial mitigation projects can happen. Please take our citizen preparedness survey: <https://www.surveymonkey.com/r/3ZQ2VFX>". Below the text is a graphic featuring an "Emergency Preparedness Checklist" with items like "Hospital" and "Neighbors" listed. The graphic also includes the text "Monroe County Hazard Mitigation Plan Update".



Figure C-20. Town of Webster Website and Survey Link

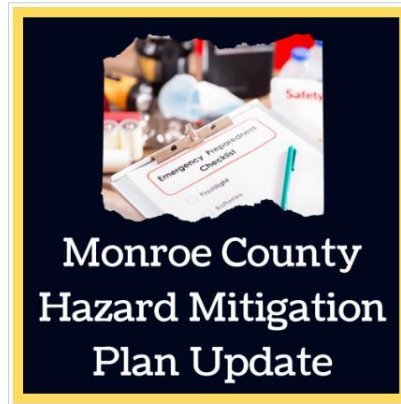
Monroe County Hazard Mitigation Plan Update:

The goal of the project is to save lives and property through the reduction of hazard vulnerability for the entire county. 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.

The Monroe County Hazard Mitigation Steering Committee has developed a Mitigation Survey to assist in providing the public an outlet to contribute to the Monroe County HMP update.

[Take the Survey](#)

[Monroe County Website](#)





APPENDIX D. PARTICIPATION 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 Monroe 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 access to meeting recordings and materials. During the planning process the consultant contacted each participant to offer support, explain the process, and facilitate the submittal and review of critical documents.

Letters of Intent to Participate indicating municipal planning efforts are included in this appendix. 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 municipalities annex in Section 9 (Jurisdictional Annexes).



Jurisdiction	Name	Title	Attended SC Kickoff, 8/9/2022	Attended PP Kickoff Meeting, 8/10/2022	Attended SC Risk Assessment Meeting, 10/13/2022	Attended PP Risk Assessment Meeting, 10/13/22	Attended Mitigation Strategy Workshop, 10/17/22	Attended Annex Workshop #1, 11/01/22	Attended Annex Workshop #2, 11/01/22	Attended Annex Workshop #3, 11/03/22	Attended SC Draft Plan Review Meeting, 11/22/22
Monroe County	Timothy Henry	Monroe County Emergency Manager	X								X
Monroe County	Matthew Jarrett	Monroe County Office of Emergency Management	X		X	X	X		X		X
Monroe County	Elisabeth Clower	Monroe County Office of Emergency Management	X		X	X	X				X
Monroe County	Zack Laffin	Monroe County Office of Emergency Management	X								
Monroe County	Clement Chung	Monroe County Department of Environmental Services Deputy Director	X		X						
Monroe County	Andrew Sansone	Monroe County Department of Environmental Services			X						X
Monroe County	Rochelle Bell	Senior Associate Planner, Department of Planning and Development			X						X
Monroe County	Scott McCarty	Monroe County DES-GIS Services Division		X	X	X					X
Monroe County	Jennifer VanHouter	Monroe County Senior GIS Analyst	X								



Jurisdiction	Name	Title	Attended SC Kickoff, 8/9/2022	Attended PP Kickoff Meeting, 8/10/2022	Attended SC Risk Assessment Meeting, 10/13/2022	Attended PP Risk Assessment Meeting, 10/13/22	Attended Mitigation Strategy Workshop, 10/17/22	Attended Annex Workshop #1, 11/01/22	Attended Annex Workshop #2, 11/01/22	Attended Annex Workshop #3, 11/03/22	Attended SC Draft Plan Review Meeting, 11/22/22
Bill J. Carpenter											
Rochester-Genesee Regional Transportation Authority (RGRTA)	Jason Palvino	System Safety Manager			X						
Rochester-Genesee Regional Transportation Authority (RGRTA)	Bill J. Carpenter	CEO	X								
Monroe County Soil & Water Conservation District	Kelly Emerick	Executive Director	X		X						X
Hilton Central School District	Dr. Casey Kosiorek	Hilton Central School Superintendent	X								
Hilton Central School District	David Inzana	Director of Security									X
Monroe Community College in Brighton	Chuck DiSalvo	Public Safety Coordinator	X		X						
Monroe Community College in Brighton	Lt. Sam Hillman	Public Safety									X
Town of Brighton	Chad Roscoe	Junior Engineer						X			
Village of Brockport	Erica Linden	Manager				X	X			X	
Village of Brockport	Dan Verace	Superintendent of Public Works								X	
Village of Brockport	Chad Fabry	Code Enforcement Officer								X	
Town of Chile	Dawn Forte	Secretary to Town Supervisor		X		X	X			X	
Town of Chile	David Lindsey	Commissioner of Public Works								X	
Village of Churchville	John Hartman	Mayor				X	X			X	
Village of Churchville	Stacy Stanton	Clerk/Treasurer								X	



Jurisdiction	Name	Title	Attended SC Kickoff, 8/9/2022	Attended PP Kickoff Meeting, 8/10/2022	Attended SC Risk Assessment Meeting, 10/13/2022	Attended PP Risk Assessment Meeting, 10/13/22	Attended Mitigation Strategy Workshop, 10/17/22	Attended Annex Workshop #1, 11/01/22	Attended Annex Workshop #2, 11/01/22	Attended Annex Workshop #3, 11/03/22	Attended SC Draft Plan Review Meeting, 11/22/22
Town of Clarkson	Kevin Moore	Building Inspector/Code Enforcement Officer					X	X			
Town/Village of East Rochester	Martin D'Ambrose	Village Administrator				X	X			X	
Town/Village of East Rochester	James J. Herko	Building				X	X			X	
Village of Fairport	Bryan White	Village Manager's Office				X	X				
Village of Fairport	Jill Wiedrick	Planner				X	X		X		
Village of Fairport	Jason Kaluza	Code Enforcement Officer				X	X				
Town of Gates	Kurt Rappazzo	Director of Public Works & Highways				X	X	X			
Town of Greece	Kirk Morris	DPW Commissioner		X		X	X				
Town of Greece	John Gauthier	Town of Greece DPW, Associate Engineer		X		X	X				
Town of Greece	John Newcomb	Town of Greece						X			
Town of Hamlin	Cheryl Pacelli	Building Inspector								X	
Town of Henrietta	Steve Schultz	Town Supervisor	X	X							
Town of Henrietta	Christopher E. Martin P.E.	Director of Engineering & Planning				X	X				
Town of Henrietta	Tim Lessing	Superintendent of Highways				X	X				
Town of Henrietta	Lucas Bushen	Deputy Director of Engineering				X			X		



Jurisdiction	Name	Title	Attended SC Kickoff, 8/9/2022	Attended PP Kickoff Meeting, 8/10/2022	Attended SC Risk Assessment Meeting, 10/13/2022	Attended PP Risk Assessment Meeting, 10/13/22	Attended Mitigation Strategy Workshop, 10/17/22	Attended Annex Workshop #1, 11/01/22	Attended Annex Workshop #2, 11/01/22	Attended Annex Workshop #3, 11/03/22	Attended SC Draft Plan Review Meeting, 11/22/22
Village of Hilton	Mark Mazzucco	Code Enforcement Officer				X	X	X			
Village of Honeoye Falls	Richard Milne	Mayor		X		X	X				
Village of Honeoye Falls	Scott Johnson	Assistant Fire Chief		X		X	X				
Village of Honeoye Falls	Brian Anderson	Village Administrator				X	X		X		
Village of Honeoye Falls	David Ford	Code Enforcement Officer				X	X				
Town of Irondequoit	Erin Magee	Deputy Commissioner of Public Works	X		X	X					X
Town of Mendon											
Town of Ogden	Sue Duggan	Assistant Building Inspector				X	X			X	
Town of Ogden	Mike Zale	Town Supervisor								X	
Town of Parma	Mark Lenzi	Building Inspector		X		X	X	X			
Town of Parma	Allen Reitz	Fire Marshal				X	X	X			
Town of Penfield	Jeff David	Fire Marshal/Building Department				X	X		X		
Town of Penfield	Michael O'Connor	Engineer/Engineering Department							X		
Town of Perinton	Eric Williams	Assistant to the Commissioner of Public Works/Department of Public Works				X	X		X		
Town of Pittsford	Salvatore Tantalo	Emergency Manager / Fire Marshal		X		X	X				



Jurisdiction	Name	Title	Attended SC Kickoff, 8/9/2022	Attended PP Kickoff Meeting, 8/10/2022	Attended SC Risk Assessment Meeting, 10/13/2022	Attended PP Risk Assessment Meeting, 10/13/22	Attended Mitigation Strategy Workshop, 10/17/22	Attended Annex Workshop #1, 11/01/22	Attended Annex Workshop #2, 11/01/22	Attended Annex Workshop #3, 11/03/22	Attended SC Draft Plan Review Meeting, 11/22/22
Town of Riga	Debbie Campanella	Town Councilperson				X	X			X	
City of Rochester	Karen St. Aubin	Emergency Management	X		X						
City of Rochester	Mark Hudson	Deputy Fire Chief				X	X	X			
City of Rochester	Captain Jamie Renner	Rochester Fire Department, Special Operations Unit				X	X	X			X
City of Rochester	Dan Arena	Code Compliance Coordinator, NBD				X	X				
City of Rochester	Sarah Ruekberg	Rochester Fire Department									X
Town of Rush	Doug Scarson	Code Enforcement Officer							X		
Village of Scottsville	Maggie Ridge	Mayor				X	X			X	
Village of Scottsville	Anne Hartman	Village Clerk				X	X				
Village of Spencerport	Jacqueline Sullivan	Village Clerk		X		X	X				
Town of Sweden	Lyle Stirk	Code Enforcement Officer								X	
Town of Webster	Josh Artuso	Director of Community Development				X	X				
Town of Webster	Andrew Vorndran	Fire Marshal/Community Development						X			
Village of Webster	Jake Swingly	Superintendent of Public Works		X				X			
Village of Webster	Aron Thompson	Building Inspector				X	X	X			
Town of Wheatland	Jay Coates	Fire Marshal		X		X	X			X	



Jurisdiction	Name	Title	Attended SC Kickoff, 8/9/2022	Attended PP Kickoff Meeting, 8/10/2022	Attended SC Risk Assessment Meeting, 10/13/2022	Attended PP Risk Assessment Meeting, 10/13/22	Attended Mitigation Strategy Workshop, 10/17/22	Attended Annex Workshop #1, 11/01/22	Attended Annex Workshop #2, 11/01/22	Attended Annex Workshop #3, 11/03/22	Attended SC Draft Plan Review Meeting, 11/22/22



Public Works Department

Mike Guyon, P.E.
Commissioner of Public
Works

Timothy P. Henry, Deputy Director of Public Safety|County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update
Authorization and Letter of Intent to Participate
Town of Brighton

Dear Mr. Henry, County Emergency Manager:

This is to confirm that the Town of Brighton is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Brighton:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years



- Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
 - Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
 - Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
 - Completing data and information collection survey forms in a timely manner.
 - Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
 - Involve your local NFIP Floodplain Administrator in the planning process.
 - Review draft Plan sections when requested and provide comment and input as appropriate.
 - Adopt the Plan by resolution of their governing body after FEMA conditional approval.
 - Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.
 -
3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC:
Michael Guyon

Position/Department:
Commissioner of Public Works

Phone Number:
585-784-5225

Email Address:
Mike.Guyon@TownofBrighton.org

Alternate/Secondary POC:
Chad Roscoe

Position/Department
Junior Engineer

Phone Number:
585-784-5224

Email Address:
Chad.Roscoe@TownofBrighton.org



4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA:

Chad Roscoe

Position/Department:

Junior Engineer/DPW

Phone Number:

585-784-5224

Email Address:

Chad.Roscoe@TownofBrighton.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,

Michael E. Guyon



VILLAGE OF BROCKPORT

127 Main Street · Brockport, New York 14420
Telephone (585) 637-5300 · Fax (585) 637-1045
Website: www.brockportny.org

The Victorian Village on the Erie Canal
Preserve America Community
Listed on the State and National Registers of Historic Places
Certified Local Government
Tree City USA Community
Erie Canalway Heritage Award of Excellence
NYS Climate Smart Community
NYS Clean Energy Community

September 23, 2022

Timothy P. Henry, Deputy Director of Public Safety & County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update - Authorization Form -- **Village of Brockport**

Dear Deputy Director Henry,

This is to confirm that the Village of Brockport is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Village of Brockport:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.

Mayor Margaret B. Blackman
Trustee/Deputy Mayor Annette M. Crane
Trustees Shawn Halquist, Katherine J. Kristansen, John LaPierre

- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

1. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Erica Linden	Position/Department: Manager
Phone Number: 585-637-5300 112	Email Address: elinden@brockportny.org

Alternate/Secondary POC: Dan Verace	Position/Department: Superintendent of Public Works
Phone Number: 585-637-1060	Email Address: dverace@brockportny.org

2. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Chad Fabry	Position/Department: Code Enforcement Officer
Phone Number: 585-637-5300 x119	Email Address: cfabry@brockportny.org

3. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,

A handwritten signature in blue ink, appearing to read 'M. Blackman', with a long horizontal flourish extending to the right.

Margaret B. Blackman
Village Mayor



TOWN OF CHILI

STATE OF NEW YORK * COUNTY OF MONROE
ESTABLISHED IN 1822



David J Dunning
Supervisor

Virginia L. Ignatowski
Town Clerk

Mark L. DeCory
Michael S. Slattery
Mary C. Sperr
James V. Valerio
Town Council Members

July 26, 2022

Timothy Henry, Deputy Director of Public Safety/County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, NY 14624

Subject: Monroe County Hazard Mitigation Plan Update
Authorization & Letter of Intent to Participate

Dear Mr. Henry, County Emergency Manager:

This is to confirm that the Town of Chili, NY is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Chili:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.

2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:

Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.

Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.

Support the Steering Committee selected to oversee the development of this plan.

Provide representation at municipal Planning Committee meetings (~3 meetings over 6 – 8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).

Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:

Structure and facility inventory data.

Identification of new development and anticipated development.

Identification of natural hazard risk areas.

Identification of natural hazard events and losses that have impacted your community in the last five years.

Identification of plans, studies, reports, and ordinances addressing natural hazard risk.

Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.

Support public outreach efforts in your community which may include:

Providing notices of the planning project on your municipal website with links to a County project website.

Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.).

Advertising and supporting public meetings in your area.

Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.

Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.

Completing data and information collection survey forms in a timely manner.

Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.

Involve your local NFIP Floodplain Administrator in the planning process.

Review draft Plan sections when requested and provide comment and input as appropriate.

Adopt the Plan by resolution of their governing body after FEMA conditional approval.

Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC:

Dawn Forte

Position/Department:

Secretary to Supervisor/Supervisor's Office

Phone Number: 585-889-6111

Email: dforte@townofchili.org

Alternate/Secondary POC:

David Lindsay

Position/Department:

Commissioner of Public Works/Hwy Sup.

Phone Number: 585-889-6180

Email: dlindsay@townofchili.org

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP/FPA:

David Lindsay

Position/Department:

Commissioner of Public Works/Hwy Sup.

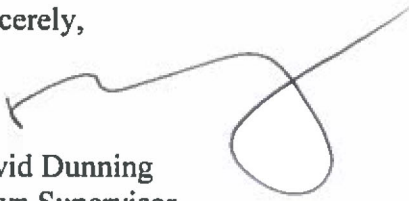
Phone Number: 585-889-6180

Email: dlindsay@townofchili.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,

David Dunning
Town Supervisor

A handwritten signature in black ink, appearing to read 'David Dunning', with a large loop at the end of the signature.



Village of Churchville

23 East Buffalo Street P.O. Box 613 Churchville, New York 14428

Office: (585) 293-3720 DPW: (585) 293-3366

Fax: (585) 293-2590 Fax: (585) 293-3693

Timothy P. Henry, Deputy Director of Public Safety County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update
Authorization and Letter of Intent to Participate
Village of Churchville

Dear Mr. Henry, County Emergency Manager:

This is to confirm that the Village of Churchville is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Village of Churchville:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:

Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.

- Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
- Support the Steering Committee selected to oversee the development of this plan.
- Provide representation at municipal Planning Committee meetings (- 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
- Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)

Stacy L. Stanton
Clerk/Treasurer

John B. Fitzsimmons
Village Attorney

John T. Hartman
Mayor

Michael H. Brown
Trustee

Scott A. Cullen
Trustee

Diane F. Pusateri
Deputy Mayor

Julie L. Michalko
Trustee

Paul A. Robinson
DPW Superintendent

John A. Mancuso
Planning Board Attorney

- Advertising and supporting public meetings in your area
- Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: John Hartman	Position/Department: Mayor
Phone Number: 585-293-3720 x112	Email Address: mayor@churchville.net

Alternate/Secondary POC: Stacy Stanton	Position/Department: Clerk/Treasurer
Phone Number: 585-293-3720 x115	Email Address: clerk@churchville.net

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

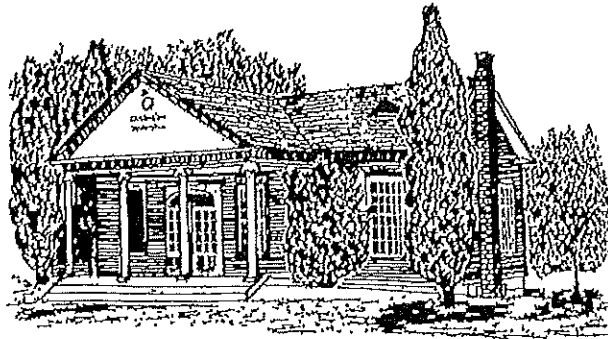
Name of NFIP FPA: Tim McElligott	Position/Department: Building Inspector/Code Enforcement Officer
Phone Number: 585-293-3720 x134	Email Address: tim@churchville.net

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



John T. Hartman
Mayor



Town of Clarkson

3710 Lake Road PO Box 858

Clarkson, New York 14430

(585) 637-1131

September 22, 2022

Timothy P. Henry, Deputy Director of Public Safety & County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update - Authorization Form
Town of Clarkson

Dear Deputy Director Henry,

This is to confirm that the Town of Clarkson is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Clarkson:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:

Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.

- Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
- Support the Steering Committee selected to oversee the development of this plan.
- Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
- Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas

- Identification of natural hazard events and losses that have impacted your community in the last five years
- Identification of plans, studies, reports, and ordinances addressing natural hazard risk
- Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Kevin Moore	Position/Department: Building Inspector/CEO
Phone Number: 585 637-1134 45	Email Address: Kevin.moore@clarksonNY.org

Alternate/Secondary POC:	Position/Department:
Phone Number:	Email Address:

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Kevin Moore	Position/Department: Building Department
Phone Number: same as above	Email Address: same as above

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



Christa Filipowicz, Supervisor
Town of Clarkson



Town/Village of East Rochester

317 MAIN STREET, SUITE 2000
EAST ROCHESTER, NEW YORK 14445
585-586-3553 · Fax: 585-419-8282
www.eastrochester.org
Mayor – John R. Alfieri

BOARD OF TRUSTEES

Ted Conners
Mark A. Florack
Vincent E. Raschiatore
Kelley Swagler

ADMINISTRATOR

Martin G. D'Ambrose

CLERK TREASURER

Shelby E. Simmons

DEPUTY CLERK

Sandra Consiglio

July 27, 2022

Timothy P. Henry, Deputy Director of Public Safety & County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update - Authorization
Form

Town/Village of East Rochester

Dear Deputy Director Henry,

This is to confirm that the Town/Village of East Rochester is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town/Village of East Rochester:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee (“Steering Committee”), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this “Authorization and Acknowledgement” letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.

- Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
 - Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
 - Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
 - Completing data and information collection survey forms in a timely manner.
 - Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
 - Involve your local NFIP Floodplain Administrator in the planning process.
 - Review draft Plan sections when requested and provide comment and input as appropriate.
 - Adopt the Plan by resolution of their governing body after FEMA conditional approval.
 - Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.
3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Martin G. D'Ambrose	Position/Department: Administration
Phone Number: 585-586-3553	Email Address: mdambrose@astrochester.org

Alternate/Secondary POC: William Marr	Position/Department: Public Works
Phone Number: 585-381-1565	Email Address: bmarr@astrochester.org


4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: James J. Herko Jr.	Position/Department: Building
Phone Number: 585-385-3513	Email Address: jherko@astrochester.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,

TOWN/VILLAGE OF EAST ROCHESTER

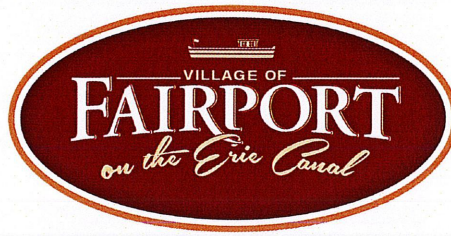


John R. Alfieri
Mayor

Cc. Board of Trustees
Shelby E. Simmons, Clerk/Treasurer
Edward Parrone, Engineer

EAST ROCHESTER, NEW YORK . . . "1897 to 2022 Celebrating 125th Anniversary Quasiquicentennial"

Bryan L. White, ICMA-CM
Village Manager



31 S. Main Street, Fairport, NY 14450
Office: (585) 421-3201
Email: blw@fairportny.com

August 29, 2022

Timothy P. Henry, Deputy Director of Public Safety & County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update - Authorization Form
Village of Fairport

Dear Deputy Director Henry,

This is to confirm that the Village of Fairport is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Village of Fairport:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee (“Steering Committee”), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this “Authorization and Acknowledgement” letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk

- Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
 - Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
 - Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
 - Completing data and information collection survey forms in a timely manner.
 - Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
 - Involve your local NFIP Floodplain Administrator in the planning process.
 - Review draft Plan sections when requested and provide comment and input as appropriate.
 - Adopt the Plan by resolution of their governing body after FEMA conditional approval.
 - Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.
3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Bryan White	Position/Department: Village Manager's Office
Phone Number: 585-421-3201	Email Address: blw@fairportny.com

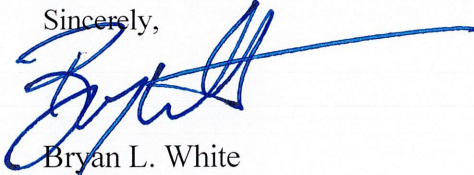
Alternate/Secondary POC: Jill Wiedrick	Position/Department: Planner
Phone Number: 585-421-3208	Email Address: jmw@fairportny.com

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Jason Kaluza	Position/Department: Code Enforcement Officer
Phone Number: 585-421-3207	Email Address: jlk@fairportny.com

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



Bryan L. White
Village Manager

Town of Gates

Supervisor
Cosmo A. Giunta

Town Clerk
Veronica M. Owens



Town Council
Lee A. Cordero
Christopher B. DiPonzio
Andrew Loughlin
Steve Tucciarello

August 3, 2022

Timothy P. Henry, Deputy Director of Public Safety & County Emergency Manager

Monroe County Office of Emergency Management

1190 Scottsville Road, Suite 200

Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update - Authorization Form
Town of Gates

Dear Deputy Director Henry,

This is to confirm that the Town of Gates is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, Town of Gates:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).

- Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC:	Position/Department:
Cosmo A Giunta	Town Supervisor
Phone Number:	Email Address:
585-429-8210	Supervisor@townofgates.org

Alternate/Secondary POC:	Position/Department:
Kurt Rappazzo	Director of Public Works / Highway Superintendent
Phone Number:	Email Address:
585-429-8245	krappazzo@townofgates.org

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA:	Position/Department:
Kurt Rappazzo	Director of Public Works / Highway Superintendent
Phone Number:	Email Address:
585-429-8245	krappazzo@townofgates.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



Cosmo A. Giunta

Supervisor



*William D. Reilich
Supervisor*

TOWN OF GREECE

ONE VINCE TOFANY BOULEVARD • GREECE, NY 14612

TEL: (585) 225-2000 • FAX: (585) 723-2262

WWW.GREECENYGOV

Timothy P. Henry, Deputy Director of Public Safety, County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update Authorization and Letter of Intent to Participate - Town of Greece

Dear Mr. Henry:

This is to confirm that the Town of Greece is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Greece:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (approximately 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.

- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
 - Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
 - Completing data and information collection survey forms in a timely manner.
 - Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
 - Involve your local NFIP Floodplain Administrator in the planning process.
 - Review draft Plan sections when requested and provide comment and input as appropriate.
 - Adopt the Plan by resolution of their governing body after FEMA conditional approval.
 - Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.
3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Kirk Morris	Position/Department: Commissioner, Public Works
Phone Number: 585-723-2251	Email Address: KMorris@greeceny.gov

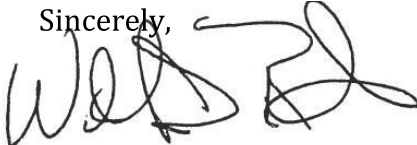
Alternate/Secondary POC: John Gauthier	Position/Department: Associate Engineer, DPW
Phone Number: 585-723-2251	Email Address: JGauthier@greeceny.gov

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Paul Mousso	Position/Department: FPA, Technical Services
Phone Number: 585-723-2424	Email Address: PMousso@greeceny.gov

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



William D. Reilich, Supervisor
Town of Greece

- o Advertising and supporting public meetings in your area
- o Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Bernard (B.J.) MAIER	Position/Department: FIRE MARSHAL
Phone Number: (585) 448-2130	Email Address: bernardmaier0@gmail.com

Alternate/Secondary POC: Cheryl Pacelli	Position/Department: Building Inspector
Phone Number: (585) 964-8181	Email Address: Cheryl.Pacelli@HamlinNY.org

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Steve Baase	Position/Department: Supervisor
Phone Number: (585) 964-8981	Email Address: stsupervisor@HamlinNY.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely, **Steven Baase - T/O Hamlin Supervisor**



TOWN OF HENRIETTA

County of Monroe • State of New York
475 Calkins Road, P.O. Box 999, Henrietta, N.Y. 14467
(585) 334-7700 • www.henrietta.org

AUG - 4 2022

STEPHEN L. SCHULTZ
Supervisor

CRAIG ECKERT
Deputy Town Supervisor

MILLIE C. SEFRANEK
LISA S. BOLZNER
M. RICK PAGE
JOSEPH D. BELLANCA JR.
Council Members

Timothy P. Henry, Deputy Director of Public Safety | County Emergency
Manager Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan
Update Authorization and Letter of
Intent to Participate: Town of Henrietta

Dear Mr. Henry, County Emergency Manager:

This is to confirm that the Town of Henrietta is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Henrietta:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:

Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.

- Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
- Support the Steering Committee selected to oversee the development of this plan.
- Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6- 8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
- Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - o Structure and facility inventory data
 - o Identification of new development and anticipated development
 - o Identification of natural hazard risk areas
 - o Identification of natural hazard events and losses that have impacted your community in the last five years
 - o Identification of plans, studies, reports, and ordinances addressing natural hazard risk areas

- o Identification of plans, studies, reports, and ordinances addressing natural hazard risk
- o Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in your community which may include:
 - o Providing notices of the planning project on your municipal website with links to a County project website
 - o Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - o Advertising and supporting public meetings in your area
 - o Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC:	Position/Department:
Tim Lessing	Henrietta Superintendent of Highways
Phone Number:	Email Address:
359 - 7004	tllessing@henrietta.org

Alternate/Secondary POC:	Position/Department:
Steve Schultz	Henrietta Town Supervisor
Phone Number:	Email Address:
359 - 7000	sschultz@henrietta.org

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA:

Kevin Wilson

Position/Department:

Director of Building and Fire Prevention

Phone Number:

359-7063

Email Address:

kwilson@henrietta.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



Stephen L. Schultz
Henrietta Town Supervisor

Joseph M. Lee, Mayor

TRUSTEES
Andrew J. Fowler
Sherry A. Farrell
Larry W. Speer
Shannon Zabelny

Shari Wilson-Pearce Village Manager/Clerk
Jeff Pearce Supt. of Public Works

VILLAGE OF HILTON

59 HENRY STREET
HILTON, NY 14468

(585) 392-4144
(585) 392-5620 Fax
voh@hiltonny.org



August 31, 2022

Timothy P. Henry, Deputy Director of Public Safety & County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update - Authorization Form
Village of Hilton

Dear Deputy Director Henry,

This is to confirm that the Village of Hilton is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Village of Hilton:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.

- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: <div style="text-align: center;">Mark Mazzucco</div> Phone Number: <div style="text-align: center;">(585) 392-4144, Ext 106</div>	Position/Department: <div style="text-align: center;">Code Enforcement Officer</div> Email Address: <div style="text-align: center;">mark@hiltonny.org</div>
--	--

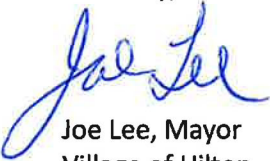
Alternate/Secondary POC: <div style="text-align: center;">Jeff Pearce</div> Phone Number: <div style="text-align: center;">(585) 392-9632</div>	Position/Department: <div style="text-align: center;">DPW Superintendent</div> Email Address: <div style="text-align: center;">jeff@hiltonny.org</div>
---	--

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: <div style="text-align: center;">Mark Mazzucco</div> Phone Number: <div style="text-align: center;">(585) 392-4144 Ext 106</div>	Position/Department: <div style="text-align: center;">Code Enforcement Officer</div> Email Address: <div style="text-align: center;">mark@hiltonny.org</div>
--	--

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,

A handwritten signature in blue ink, appearing to read "Joe Lee". The signature is fluid and cursive, with the first name "Joe" and last name "Lee" clearly distinguishable.

Joe Lee, Mayor
Village of Hilton



VILLAGE CLERK-TREASURER
GINA HURLEY

VILLAGE ATTORNEY
Matthew Lenahan

MAYOR
RICHARD B. MILNE
TRUSTEES
STANLEY E. WORBOYS
DANIEL I. HARRIS
JACKIE MAIN

August 8, 2022

Timothy P. Henry, Deputy Director of Public Safety & County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update - Authorization Form
Village of Honeoye Falls

Dear Deputy Director Henry,

This is to confirm that the Village of Honeoye Falls is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Village of Honeoye Falls

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas

- Identification of natural hazard events and losses that have impacted your community in the last five years
- Identification of plans, studies, reports, and ordinances addressing natural hazard risk
- Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a county project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Richard B, Milne	Position/Department: Mayor
Phone Number: 585-624-1711	Email Address: mayor@villageofhoneoyefalls.org

Alternate/Secondary POC: Scott Johnson Brian Anderson	Position/Department: Assistant Fire Chief Village Administrator
Phone Number: 585- 624 1100 585- 624-1711	Email Address: sjohnson@honeoyefalls.org banderson@villageofhoneoyefalls.org

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: David Ford	Position/Department: Code Enforcement Officer
Phone Number: 585-624-1711	Email Address: dford@villageofhoneoyefalls.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



Richard B. Milne
Mayor



Department of Public Works

Town of Irondequoit

Rory Fitzpatrick
Town Supervisor

Erin Magee
Commissioner of Public Works

July 29, 2022

Timothy P. Henry, Deputy Director of Public Safety Monroe County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Re: Dear Mr. Henry, County Emergency Manager:

This letter is to confirm that the Town of Irondequoit is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Irondequoit:

1. Authorized the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectation), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contact (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop.)
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory date
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years



Department of Public Works

Town of Irondequoit

Rory Fitzpatrick
Town Supervisor

Erin Magee
Commissioner of Public Works

- Identification of plan, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
 - Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website.
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area.
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
 - Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
 - Completing data and information collection survey forms in a timely manner.
 - Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
 - Involve your local NFIP Floodplain Administrator in the planning process.
 - Review draft Plan sections when requested and provide comment and input as appropriate.
 - Adopt the Plan by resolution of their governing body after FEMA conditional approval.
 - Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.
3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POC's are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above are met.



Department of Public Works

Town of Irondequoit

Rory Fitzpatrick
Town Supervisor

Erin Magee
Commissioner of Public Works

Primary POC: Erin Magee Commissioner	Position/ Department: Public Works
Phone Number: 585-336-6033	Email Address: Emagee@irondequoit.gov

Alternate/Secondary POC: Thomas Albert Foreman	Position/Department: Irondequoit Event Emergency Manager and Public Works
Phone Number: 585-353-9289	Email Address: Talber@irondequoit.gov

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Wes Pettee, AICP	Position/Department: Consultant- LaBella Associates
Phone Number: 585-295-6656	Email Address: pettee@labellapc.com

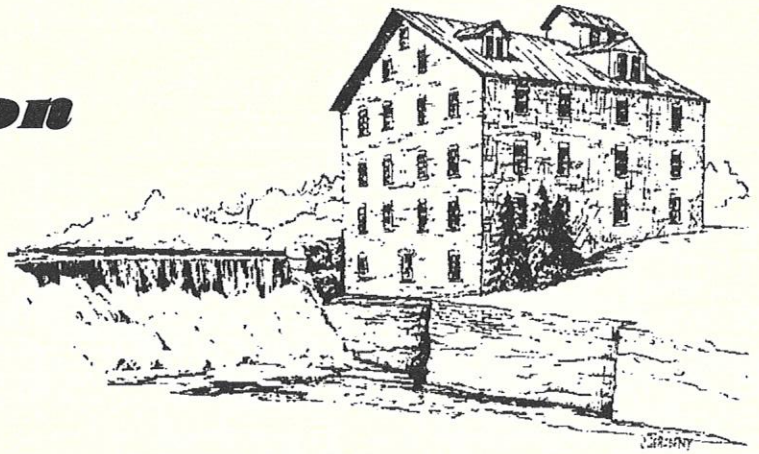
5. Recognized that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,

Erin Magee,
Commissioner of Public Works

Town of Mendon

*Preserving the Past...
Protecting the Present...
Promoting the Future*



Timothy P. Henry, Deputy Director of Public Safety | County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update
Authorization and Letter of Intent to Participate
Town of Mendon

Dear Mr. Henry, County Emergency Manager:

This is to confirm that the Town of Mendon is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Mendon:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas

- Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
 - Support public outreach efforts in the community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
 - Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
 - Completing data and information collection survey forms in a timely manner.
 - Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
 - Involve your local NFIP Floodplain Administrator in the planning process.
 - Review draft Plan sections when requested and provide comment and input as appropriate.
 - Adopt the Plan by resolution of their governing body after FEMA conditional approval.
 - Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.
3. Assigns the following person to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC:

John D. Moffitt
Town of Mendon Supervisor
585-624-6061
jmoffitt@townofmendon.org

Alternate/Secondary POC:

Corey Gates
Town of Mendon Bldg Inspector/Code Enforcer/Fire Marshal
585-624-1034
buildinginspector@townofmendon.org

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

NFIP FPA:

Corey Gates

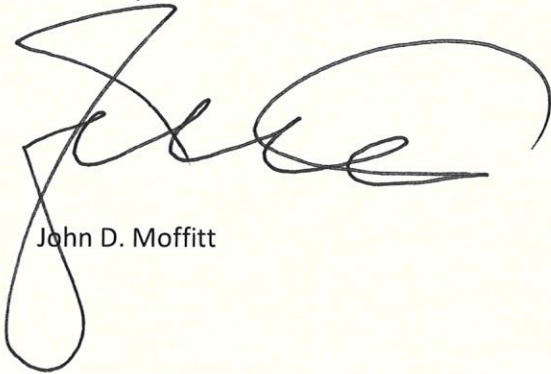
Town of Mendon Bldg Inspector/Code Enforcer/Fire Marshal

585-624-1034

buildinginspector@townofmendon.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,

A handwritten signature in black ink, appearing to read "John D. Moffitt". The signature is stylized with a large, sweeping initial "J" and a long, horizontal flourish.

John D. Moffitt



TOWN OF
Ogden
COUNTY OF MONROE
STATE OF NEW YORK

August 19, 2022

Timothy P. Henry, Deputy Director of Public Safety & County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update - Authorization Form
Town of Ogden, New York

Dear Deputy Director Henry,

This is to confirm that the Town of Ogden is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Ogden:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development

- Identification of natural hazard risk areas
- Identification of natural hazard events and losses that have impacted your community in the last five years
- Identification of plans, studies, reports, and ordinances addressing natural hazard risk
- Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Mike Zale	Position/Department: Town Supervisor, Supervisors Office
Phone Number: (585) 617-6129	Email Address: supervisor@ogdenny.com

Alternate/Secondary POC: Sue Dugan	Position/Department: Assistant Building Inspector, Building Department
Phone Number: (585) 617-6196	Email Address: asstbuilding@ogdenny.com

--

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Brian Thompson	Position/Department: Building Inspector, Building Department
Phone Number: (585) 617-6199	Email Address: building@ogdenny.com

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



Mike Zale
Ogden Town Supervisor



TOWN OF PARMA

Building Department

1300 Hilton Parma Road
P.O. Box 728
Hilton, New York 14468

JUL 27 2022

Office (585) 392-9449
Fax (585) 392-6659
www.parmanyny.org

Timothy P. Henry, Deputy Director of Public Safety County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update
Authorization and Letter of Intent to Participate
Town of Parma

Dear Mr. Henry, County Emergency Manager:

This is to confirm that the Town of Parma is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Parma:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:

Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.

- Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
- Support the Steering Committee selected to oversee the development of this plan.
- Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6- 8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
- Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - o Structure and facility inventory data
 - o Identification of new development and anticipated development
 - o Identification of natural hazard risk areas
 - o Identification of natural hazard events and losses that have impacted your community in the last five years
 - o Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - o Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in your community which may include:
 - o Providing notices of the planning project on your municipal website with links to a County project website
 - o Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g., newsletters, flyers, email blasts, social media, etc.)



TOWN OF PARMA

Building Department

1300 Hilton Parma Road
P.O. Box 728
Hilton, New York 14468

Office (585) 392-9449
Fax (585) 392-6659
www.parmany.org

- o Advertising and supporting public meetings in your area
- o Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Mark Lenzi, Building Inspector/Building Department Head.
Phone Number: 585-392-9449 Email: building@parmany.org

Secondary POC: Allen Reitz, Fire Marshal.
Phone Number: 585-392-9449 Email: firemarshal@parmany.org

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Mark Lenzi, Building Inspector/Building Department Head.
Phone Number: 585-392-9449 Email: building@parmany.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



TOWN OF PENFIELD

3100 Atlantic Avenue, Penfield, New York 14526-9798

August 22, 2022

Timothy P. Henry, Deputy Director of Public Safety/County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, NY 14624

SUBJECT: Monroe County Hazard Mitigation Plan Update
Authorization and Letter of Intent to Participate
Town of Penfield

Dear Mr. Henry, County Emergency Manager:

This is to confirm that the Town of Penfield is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Penfield:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee (“Steering Committee”), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this “Authorization and Acknowledgement” letter to the Monroe County Office of Emergency Management, attention: Tim Henry
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (approximately 3 meetings over 6 to 8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas

- Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions
- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g., newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process
 - Completing data and information collection survey forms in a timely manner
 - Identify specific mitigation actions to address each of the natural hazards posing significant (or high or medium) risk to your community
 - Involve your local NFIP Floodplain Administrator in the planning process
 - Review draft Plan sections when requested and provide comment and input as appropriate
 - Adopt the Plan by resolution of their governing body after FEMA conditional approval
 - Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process
3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Jeff David	Position/Dept.: Fire Marshal / Building Dept.
Phone Number: (585) 340-8643	Email Address: david@penfield.org

Alternate/Secondary POC: Mark Valentine, P.E.	Position/Dept.: Town Engineer / Engineering Dept.
Phone Number: (585) 340-8645	Email Address: valentine@penfield.org

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Michael O'Connor

Position/Dept.: Engineer / Engineering Dept.

Phone Number: (585) 340-8619

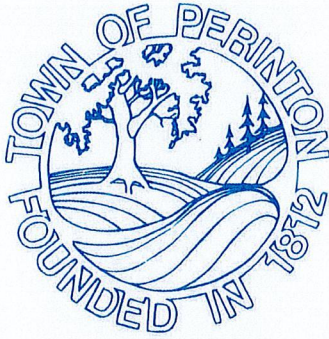
Email Address: oc Connor@penfield.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



Mark R. Valentine, P.E.
Director of Engineering and Planning
Valentine@penfield.org
585-340-8645



TOWN OF PERINTON

100 COBB'S LANE ■ FAIRPORT, NEW YORK 14450-8617
(585) 223-5115 ■ Fax: (585) 223-0448 ■ www.perinton.org

PUBLIC WORKS

8/23/22

Timothy P. Henry, Deputy Director of Public Safety & County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

**Subject: Monroe County Hazard Mitigation Plan Update - Authorization Form
Town of Perinton**

Dear Deputy Director Henry,

This is to confirm that the Town of Perinton is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Perinton:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk



- Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Eric Williams	Position/Department: Assistant to the Commissioner of Public Works / Department of Public Works
Phone Number: (585) 223-5115	Email Address: ewilliams@perinton.org

Alternate/Secondary POC: Greg Seigfred	Position/Department: Director of Building and Codes / Department of Public Works
Phone Number: (585) 223-0770	Email Address: gseigfred@perinton.org

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Jason R. Kennedy, P.E.	Position/Department: Commissioner of Public Works / Department of Public Works
Phone Number: (585) 223-5115	Email Address: jkennedy@perinton.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Hanna', with a long horizontal flourish extending to the right.

Ciaran T. Hanna
Town Supervisor

TOWN OF PITTSFORD

SETTLED 1789

11 SOUTH MAIN STREET, PITTSFORD, NY 14534
TEL. 585-248-6200 FAX 585-248-6247

Date: July 25th, 2022

Location: 1190 Scottsville Road, Suite 200, Rochester, NY 14624

Re: Monroe County Hazard Mitigation Plan Update, Authorization & Letter of Intent to Participate

From: William Smith, Town of Pittsford Supervisor

To: Timothy Henry, Deputy Director of Public Safety & Monroe County Emergency Manager

Dear Deputy Director Henry,

This is to confirm that the Town of Pittsford is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Pittsford:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee (“Steering Committee”), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this “Authorization and Acknowledgement” letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
 - Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area

- Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
 - Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
 - Completing data and information collection survey forms in a timely manner.
 - Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
 - Involve your local NFIP Floodplain Administrator in the planning process.
 - Review draft Plan sections when requested and provide comment and input as appropriate.
 - Adopt the Plan by resolution of their governing body after FEMA conditional approval.
 - Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.
3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Salvatore Tantalo	Position/Department: Emergency Manager & Fire Marshal
Phone Number: 585-813-4195	Email Address: stantalo@townofpittsford.org

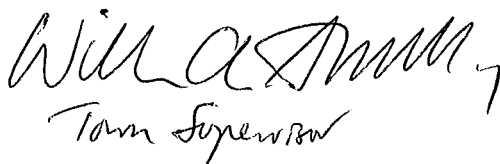
Alternate/Secondary POC: Paul Schenkel	Position/Department: Commissioner of Public Works
Phone Number: 585-248-6250	Email Address: pschenkel@townofpittsford.org

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Paul Schenkel	Position/Department: Commissioner of Public Works
Phone Number: 585-248-6250	Email Address: pschenkel@townofpittsford.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



Tom Supersnow



TOWN OF RIGA

6460 BUFFALO ROAD
CHURCHVILLE, NEW YORK 14428

Telephone: (585) 293-3880

Fax: (585) 293-1917

www.townofriga.org

Timothy P. Henry, Deputy Director of Public Safety | County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update
Authorization and Letter of Intent to Participate
Town of Riga

Dear Mr. Henry, County Emergency Manager:

This is to confirm that the **Town of Riga** is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the [Municipality Name]:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:

Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.

- Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
- Support the Steering Committee selected to oversee the development of this plan.
- Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
- Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website



TOWN OF RIGA

6460 BUFFALO ROAD
CHURCHVILLE, NEW YORK 14428

Telephone: (585) 293-3880

Fax: (585) 293-1917

www.townofriga.org

- Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
- Advertising and supporting public meetings in your area
- Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: <i>Debbie Campanella</i>	Position/Department: <i>Town Councilperson</i>
Phone Number: <i>585-746-1920</i>	Email Address: <i>dcampanella@frontier.net.net</i>

Alternate/Secondary POC: <i>Brad O'Bracta</i>	Position/Department: <i>Town Supervisor</i>
Phone Number: <i>585-415-1016</i>	Email Address: <i>bobracta@townofriga.org</i>

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: <i>Kim Pape</i>	Position/Department: <i>Town Clerk</i>
Phone Number: <i>585-293-3880 x122</i>	Email Address: <i>townclerk@townofriga.org</i>



TOWN OF RIGA
6460 BUFFALO ROAD
CHURCHVILLE, NEW YORK 14428

Telephone: (585) 293-3880
Fax: (585) 293-1917
www.townofriga.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,

A handwritten signature in cursive script that reads "B. O'Brocta".

Brad O'Brocta
Supervisor
Town of Riga



September 2, 2022

Timothy P. Henry, Deputy Director of Public Safety & County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update - Authorization Form
City of Rochester

Dear Deputy Director Henry,

This is to confirm that the City of Rochester is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the City of Rochester

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
 - Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area



- Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
 - Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
 - Completing data and information collection survey forms in a timely manner.
 - Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
 - Involve your local NFIP Floodplain Administrator in the planning process.
 - Review draft Plan sections when requested and provide comment and input as appropriate.
 - Adopt the Plan by resolution of their governing body after FEMA conditional approval.
 - Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.
3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Mark Hudson	Position/Department: Deputy Fire Chief
Phone Number: (585) 753-3734	Email Address: Mark.Hudson@cityofrochester.gov

Alternate/Secondary POC: Suzanne McSain	Position/Department: Permit Office Manager
Phone Number: (585) 428-7291	Email Address: Suzanne.McSain@cityofrochester.gov

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Suzanne McSain	Position/Department: Permit Office Manager
Phone Number: (585) 428-7291	Email Address: Suzanne.McSain@cityofrochester.gov

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,

Malik Evans, Mayor
City of Rochester, NY

Mayor
Maggie Ridge
Deputy Mayor
Andy Fraser



Trustees
Wayne LaVair
AJ Peck
Nikki Whitmarsh

Incorporated 1914

AUG 15 2022

22 Main Street, Suite 3, Scottsville, New York 14546
585-889-6050 Fax: 585-889-2505 www.scottsvilleny.org

Timothy P. Henry, Deputy Director of Public Safety County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update
Authorization and Letter of Intent to Participate
Village of Scottsville

Dear Mr. Henry, County Emergency Manager:

This is to confirm that the Village of Scottsville is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Village of Scottsville:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:

Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.

- Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
- Support the Steering Committee selected to oversee the development of this plan.
- Provide representation at municipal Planning Committee meetings (A¹ 3 meetings over 68 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
- Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.

- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

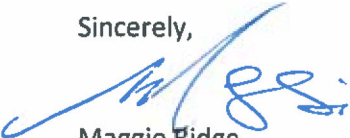
Primary POC: <i>Maggi Ridge</i>	Position/Department: <i>Mayor</i>
Phone Number: <i>585-889-6050</i>	Email Address: <i>Mayor@scottsvilleny.org</i>
Alternate/Secondary POC: <i>Anne Hartman</i>	Position/Department: <i>Village clerk</i>
Phone Number: <i>889-6050</i>	Email Address: <i>villageclerk@scottsvilleny.org</i>

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: <i>N/A</i>	Position/Department:
Phone Number:	Email Address:

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



Maggie Ridge
Mayor
Village of Scottsville
22 Main Street
Scottsville, NY 14546

AUG - 1 2022



Village of Spencerport

27 West Avenue

Spencerport, NY 14559

Tel. 585-352-4771

Fax 585-352-3484

villageoffice@vil.spencerport.ny.us

July 26, 2022

Mr. Timothy P. Henry, Deputy Director of Public Safety, County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, NY 14624

Subject: Monroe County Hazard mitigation Plan Update
Authorization and Letter of intent to Participate
Village of Spencerport

Dear Mr. Henry, County Emergency Manager:

This is to confirm that the Village of Spencerport is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Village of Spencerport:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - a. Execute and report the "Authorization and Acknowledgment" letter to the Monroe County Office of Emergency Management, attention" Tim Henry.
 - b. Identify municipal representatives to serve as the planning point of contact (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - c. Support the Steering Committee selected to oversee the development of this plan.
 - d. Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and Mitigation Strategy Workshop).
 - e. Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - i. Structure and facility inventory data
 - ii. Identification of new development and anticipated development
 - iii. Identification of natural hazard risk areas
 - iv. Identification of natural hazard events and losses that have impacted your community in the last five years
 - v. Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - vi. Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
 - f. Support public outreach efforts in your community which may include:

Gary Penders, Mayor
Eric Stowe, Attorney
Owen McIntee, Electric Supt.

Tom West, Public Works Supt.
Jacqueline Sullivan, Village Clerk
Karen Carr, Treasurer

Trustees

Carol Nellis-Ewell, Deputy Mayor
Ray Kuntz, Jr.

Charles Hopson
David Wohlers



Village of Spencerport

27 West Avenue

Spencerport, NY 14559

Tel. 585-352-4771

Fax 585-352-3484

villageoffice@vil.spencerport.ny.us

- i. Providing notices of the planning project on our municipal website with links to a County project website
 - ii. Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g., newsletters, flyers, email blasts, social media, etc.)
 - iii. Advertising and supporting public meetings in your area
 - iv. Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Sever Repetitive Loss property owners in your community.
 - g. Assist with the identification of stake holder within your community that should be informed and potentially involved with the planning process.
 - h. Completing data and information collection survey forms in a timely manner.
 - i. Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
 - j. Involve your local NFIP Floodplain Administrator in the planning process.
 - k. Review draft Plan sections with requested and provide comment and input as appropriate.
 - l. Adopt the Plan by resolution of their governing body after FEMA conditional approval.
 - m. Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.
3. Assigns the following personal to the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Gary Penders, Mayor; 585-352-4771; gpenders@vil.spencerport.ny.us

Alternate/Secondary POC: Jacqueline Sullivan, Village Clerk; 585-352-4771;
jsullivan@vil.spencerport.ny.us

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Brian Thompson, Building Inspector; 585-617-6195; building@ogdenny.com

5. Recognizes that failure to meeting the minimum participation exceptions and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,

Gary Penders, Mayor

Gary Penders, Mayor
Eric Stowe, Attorney
Owen McIntee, Electric Supt.

Carol Nellis-Ewell, Deputy Mayor
Ray Kuntz, Jr.

Trustees

Tom West, Public Works Supt.
Jacqueline Sullivan, Village Clerk
Karen Carr, Treasurer

Charles Hopson
David Wohlers



Town of Sweden Supervisor's Office
18 State Street, Brockport, NY 14420

www.townofsweden.org
supervisor@townofsweden.org
Phone (585) 637-7588
Fax (585) 431-0039

July 26, 2022

Timothy P. Henry, Deputy Director of Public Safety
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

RE: Monroe County Hazard Mitigation Plan Update

Dear Mr. Henry,

This is to confirm that the Town of Sweden is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Sweden:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
 2. Agrees to meet the minimum requirements of municipal participation, specifically:
 - Execute and return Authorization and Acknowledgement letter
 - Identify municipal representatives to serve as the planning point of contacts (POC)
 - Support the Steering Committee selected to oversee the development of this plan
 - Provide representation at municipal Planning Committee meetings (approximately three meetings over 6-8 months)
 - Provide data and information about the Town of Sweden as requested
 - Support public outreach efforts in the Town of Sweden
 - Assist with the identification of stakeholders in the Town of Sweden who should be informed and potentially involved with the planning process
 - Complete data and information collection survey forms in a timely manner
 - Identify specific mitigation actions to address each of the natural hazards posing significant or high or medium risk to the Town of Sweden
 - Involve the local NFIP Floodplain Administrator in the planning process
 - Review draft Plan sections when requested and provide comment as appropriate
 - Adopt the Plan by resolution of the Sweden Town Board after FEMA conditional approval
-

- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process
3. Assigns the following persons to be the Points of Contact for the Town of Sweden. These POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation are met.

Primary POC: Kevin G. Johnson
Position/Department: Supervisor
Phone: 585-637-7588
Email: supervisor@townofsweden.org

Alternate/Secondary POC: Patricia Hayles
Position/Department: Deputy Supervisor
Phone: 585-637-7588
Email: phayles@townofsweden.org

Floodplain Administrator: Phyllis Brudz
Position/Department: Planning/Building
Phone: 585-637-8684
Email: phyllisb@townofsweden.org

4. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee, will result in the Town of Sweden being excluded from the planning process.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin G. Johnson". The signature is fluid and cursive, with the first name "Kevin" being the most prominent part.

Kevin G. Johnson, Supervisor



Village of Webster

28 West Main Street
Webster, NY 14580
Phone (585) 265-3770 / Fax (585) 265-1004
www.villageofwebster.com

Mayor:
Darrell Byerts

Superintendent of Public Works:
James (Jake) Swingly

Village Clerk:
Heather Halstead

Trustees: Gerard Ippolito Jr. ~ Jude Lancy ~ Al Balcaen ~ Karl Laurer

"Where Life Keeps Getting Better"

July 20, 2022

Timothy P. Henry, Deputy Director of Public Safety/ County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: *Monroe County Hazard Mitigation Plan Update Authorization and Letter of Intent to Participate for the Village of Webster.*

Dear Mr. Henry, County Emergency Manager:

This is to confirm that the Village of Webster is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Village of Webster:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct the planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, Attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible representing our community and assuring these participation expectations are met by our community.
 - Support the Steering Committee selected oversee the development of this plan.
 - Provide representation at municipal planning committee meetings (~3 meetings over 6-8 months, including a Kick-Off Meeting and Mitigation Strategy Workshop).
 - Provide data and information about our community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data.
 - Identification of new development and anticipated development.

- Identification of natural hazard risk areas.
 - Identification of natural hazard events and losses that have impacted our community in the last five years.
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk.
 - Identify mitigation activity in our community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in our community which may include:
 - providing notices of the planning project on our municipal website with links to a county project website
 - providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in our area.
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in our community.
 - Assist with the identification of stakeholders within our community that should be informed that potentially involved in the planning process.
 - Completing data and information collection survey forms in a timely manner.
 - Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to our community.
 - Involve our local NFIP Floodplain Administrator in the planning process.
 - Review draft Plan sections when requested and provide comment and input as appropriate.
 - Adopt the Plan by resolution of our governing body after FEMA conditional approval.
 - Periodically provide the steering committee with reports of municipal staff and volunteer labor spent on the planning process.
3. Assigns the following persons to be the point of contact for our jurisdiction. We understand that these POC's are responsible for assuring municipal representation at municipal planning committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the planning partner expectations above, are met.

Primary POC	Position/ Department
Jake Swingly	Supt. of Public Works
Phone Number	Email Address
585-265-3770 ext 115	jswingly@villageofwebster.com

Alternate/ Secondary POC	Position/ Department
Darrell Byerts	Mayor
Phone Number	Email Address
585-265-3770	dbyerts@villageofwebster.com

4. Our designated local floodplain administrator FPA under the NFIP is:

Name of NFIP FPA	Position/ Department
Aron Thompson	Building Inspector
Phone Number	Email Address
585-265-3770 ext 116	BuildingInspector@villageofwebster.com

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



Darrell Byerts, Mayor



Town of Webster

Where Life Is Worth Living!

Thomas J. Flaherty
Town Supervisor

1000 Ridge Road, Webster, NY 14580-2917 • 585-872-1000 • Fax: 585-872-1352

8-31-22

Timothy P. Henry, Deputy Director of Public Safety & County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update - Authorization Form
Town of Webster

Dear Deputy Director Henry,

This is to confirm that the Town of Webster is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Webster:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas

- Identification of natural hazard events and losses that have impacted your community in the last five years
- Identification of plans, studies, reports, and ordinances addressing natural hazard risk
- Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.

Primary POC: Andrew Vorndran	Position/Department: Fire Marshal/Community Development
Phone Number: 585-872-7040	Email Address: avorndran@ci.webster.ny.us

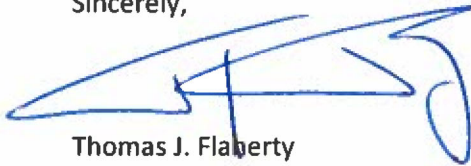
Alternate/Secondary POC: Mary Herington	Position/Department: Town Engineer/Engineering
Phone Number: 585-872-7027	Email Address: mherington@ci.webster.ny.us

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Josh Artuso	Position/Department: Director of Community Development/Community Development
Phone Number: 585-872-7028	Email Address: jartuso@ci.webster.ny.us

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,



Thomas J. Flaherty
Supervisor Town of Webster

Linda M. Dobson
Supervisor
Edward Shero
Councilman
Howard Hazelton
Councilman
Carl Schoenthal
Councilman
Timothy Davis
Councilman



Josh Davis
Highway Superintendent
Laurie B. Czapranski
Town Clerk
Town Office
22 Main St.
P.O. Box 15
Scottsville, NY 14546
Tel: (585) 889-1553
Fax: (585) 889-2933
www.townofwheatland.org

July 26, 2022

Timothy P. Henry, Deputy Director of Public Safety & County Emergency Manager
Monroe County Office of Emergency Management
1190 Scottsville Road, Suite 200
Rochester, New York 14624

Subject: Monroe County Hazard Mitigation Plan Update - Authorization Form
Town of Wheatland

Dear Deputy Director Henry,

This is to confirm that the Town of Wheatland is committed to participating in the Monroe County Hazard Mitigation Plan (HMP) update project. By way of this letter, the Town of Wheatland:

1. Authorizes the Monroe County Office of Emergency Management and the Monroe County Hazard Mitigation Steering Committee ("Steering Committee"), to guide and direct this planning process, perform certain parts of the planning process, and prepare certain parts of the plan documents on our behalf.
2. Agrees to meet the minimum requirements of municipal participation (a.k.a. the Planning Partner Expectations), specifically:
 - Execute and return this "Authorization and Acknowledgement" letter to the Monroe County Office of Emergency Management, attention: Tim Henry.
 - Identify municipal representatives to serve as the planning point of contacts (POC), below. These people will be responsible for representing their community and assuring that these participation expectations are met by their community.
 - Support the Steering Committee selected to oversee the development of this plan.
 - Provide representation at municipal Planning Committee meetings (~ 3 meetings over 6-8 months, including a Kick-Off Meeting and a Mitigation Strategy Workshop).
 - Provide data and information about your community as requested by the Steering Committee or the contract consultant, including:
 - Structure and facility inventory data
 - Identification of new development and anticipated development
 - Identification of natural hazard risk areas
 - Identification of natural hazard events and losses that have impacted your community in the last five years
 - Identification of plans, studies, reports, and ordinances addressing natural hazard risk
 - Identify mitigation activity in your community in the last five years, including progress on previously identified mitigation actions.

- Support public outreach efforts in your community which may include:
 - Providing notices of the planning project on your municipal website with links to a County project website
 - Providing notice of the planning project, the availability of Plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
 - Advertising and supporting public meetings in your area
 - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in your community.
- Assist with the identification of stakeholders within your community that should be informed and potentially involved with the planning process.
- Completing data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant [or high or medium] risk to your community.
- Involve your local NFIP Floodplain Administrator in the planning process.
- Review draft Plan sections when requested and provide comment and input as appropriate.
- Adopt the Plan by resolution of their governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

3. Assigns the following persons to be the Points of Contact for our jurisdiction. We understand that these POCs are responsible for assuring municipal representation at municipal Planning Committee meetings and assuring that the other minimum requirements of jurisdictional participation, as detailed in the Planning Partner Expectations above, are met.


Primary POC: Jay D Coates	Position/Department: Fire Marshal
Phone Number: (585) 739-4882	Email Address: jdcoates@townofwheatland.org

Alternate/Secondary POC: Linda Dobson	Position/Department: Town Supervisor
Phone Number: (585) 314-2984	Email Address: supervisor@townofwheatland.org

4. Our designated local Floodplain Administrator (FPA) under the NFIP is:

Name of NFIP FPA: Terry Rech	Position/Department: Code Enforcement Officer
Phone Number: (585) 721-0552	Email Address: twrech@townofwheatland.org

5. Recognizes that failure to meet the minimum participation expectations and deadlines, as determined by the Steering Committee will result in our municipality being excluded from the planning process.

Sincerely,

 Linda M. Dobson
 Supervisor
 Town of Wheatland



APPENDIX E. ACTION WORKSHEET TEMPLATE AND INSTRUCTIONS

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 NYSDHSES Mitigation Guidance.



Action Worksheet			
Project Name:			
Project Number:			
Risk / Vulnerability			
Hazard(s) of Concern:			
Description of the Problem:			
Action or Project Intended for Implementation			
Description of the Solution:			
Is this project related to a Critical Facility or Lifeline?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is this project related to a Critical Facility located within the 100-year floodplain?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:		Estimated Benefits (losses avoided):	
Useful Life:		Goals Met:	
Estimated Cost:		Mitigation Action Type:	
Plan for Implementation			
Prioritization:		Desired Timeframe for Implementation:	
Estimated Time Required for Project Implementation:		Potential Funding Sources:	
Responsible Organization:		Local Planning Mechanisms to be Used in Implementation if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



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



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

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

Project Number: Each action must have a unique project name referenced here and in the Action Tables.

Assessing the Risk and Vulnerability

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

- ✓ Disease Outbreak
- ✓ Drought
- ✓ Earthquake
- ✓ Extreme Temperature
- ✓ Flood
- ✓ Hazardous Materials
- ✓ Infestation and Invasive Species
- ✓ Landslide
- ✓ Severe Storm
- ✓ Severe Winter Storm
- ✓ 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.

Action/Project Intended for Implementation

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).

Critical Facility: Please indicate whether or not the identified project is related to a critical facility in your community. If a critical facility, indicate whether or not it is located in the 1% annual chance flood area.

Level of Protection: Please identify the level of protection the proposed project will provide. For example, 100-year (1%) flood.

Useful Life: Identify the number of years the project will provide protection against the hazard.



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).

Estimated 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.

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.

Goals Met:

- **Goal 1: Coordinate hazard mitigation programs and other planning efforts that affect the County.**
- **Goal 2: Prevent hazards from negatively impacting new development.**
- **Goal 3: Protect life, property, and the environment from current and future hazard impacts.**
- **Goal 4: Increase public awareness of current and future hazards, their impacts, and ways to reduce vulnerability through education and outreach.**
- **Goal 5: Protect, preserve, and restore the functions of natural systems.**

Plan for Implementation

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

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)

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

Desired Timeline for Implementation: Identify the desired start time for this project. For example, within six months.

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

Local Planning Mechanism to be Used in Implementation (if any): Consider the use of local planning mechanisms that will be used to implement the project.



Evaluation of Potential Actions/Projects

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.

Reporting on Progress (for plan maintenance)

Date of Status Report: This section should be completed during yearly plan maintenance/evaluation.

Report of Progress: Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.

Update Evaluation of the Problem and/or Solution: Provide an updated description of the problem and solution, and what has happened since initial consideration/development.

Actions which are not complete may be dropped with a rationale provided (e.g., project deemed unfeasible...). Other incomplete actions should clearly be indicated as continuing; indicate percent complete, and identify any hurdles/obstacles/reasons for change in schedule. Even actions that have had no progress to date can be identified as continuing. For any action that is not yet complete and will continue, always consider modifying the action to promote implementation.

Please note this report on progress should be done, at minimum, each year prior to the annual Planning Committee update outlined in the plan maintenance procedures in Section 7 (Plan Maintenance).



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?
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 project or initiative commensurate with the benefits achieved?
4. **Technical** – Is the mitigation action technically feasible? Is it a long-term solution? Eliminate actions that, from a technical standpoint, will not meet the goals.
5. **Political** – Is there overall public support for the mitigation action? Is there the political will to support it?
6. **Legal** – Does the jurisdiction have the authority to implement the action?
7. **Fiscal** - Can the project be funded under existing program budgets (i.e., is this initiative currently budgeted for)? Or would it require a new budget authorization or funding from another source such as grants?
8. **Environmental** – What are the potential environmental impacts of the action? Will it comply with environmental regulations?
9. **Social** – Will the proposed action adversely affect one segment of the population? Will the action disrupt established neighborhoods, break up voting districts, or cause the relocation of lower income people?
10. **Administrative** – Does the jurisdiction have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?
11. **Multi-hazard** – Does the action reduce the risk to multiple hazards?
12. **Timeline** – Can the action be completed in less than 5 years (within our planning horizon)?
13. **Local Champion** – Is there a strong advocate for the action or project among the jurisdiction’s staff, governing body, or committees that will support the action’s implementation?



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?



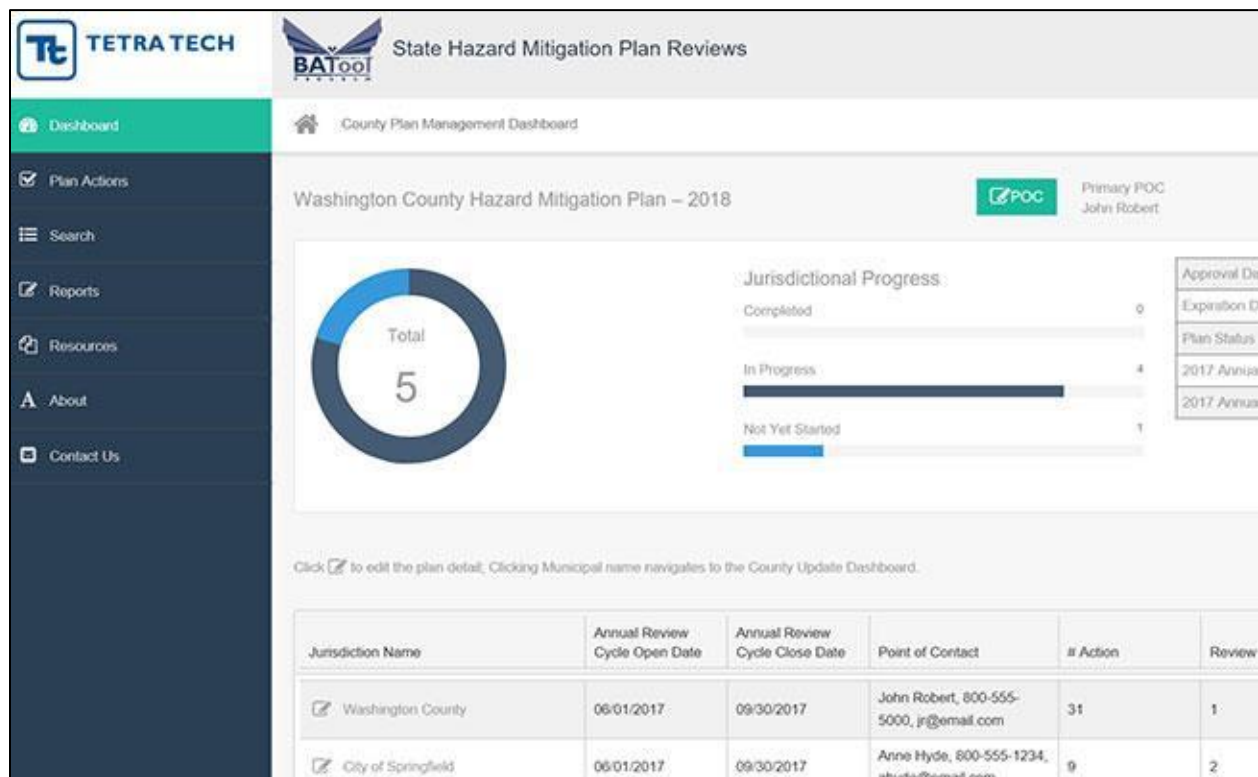
APPENDIX F. PLAN MAINTENANCE TOOLS

This appendix includes tools and worksheets to facilitate plan maintenance and review by the Monroe 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 G-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 2023 HMP throughout its period of performance.





Worksheet #1

Progress Report

step **2**

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

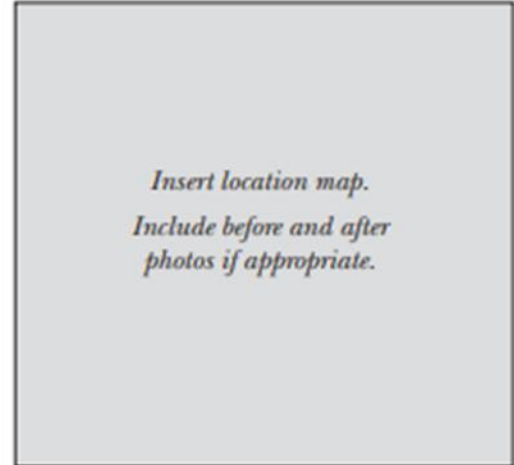
Project Name and Number: _____

Project Budget: _____

Project Description: _____

Associated Goal and Objective(s): _____

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



Was the action implemented? YES 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



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:	





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:	



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

This appendix contains information and details to support information provided in Section 4 – County Profile and Section 5 – Risk Assessment and provides the distribution of critical facilities located within Monroe County and its jurisdictions. Due to the sensitive nature of this information, this appendix is considered confidential.

DRAFT



APPENDIX H. RISK ASSESSMENT SUPPLEMENTARY DATA

This appendix contains information and details to support information provided in Section 5 (Risk Assessment).

H.1 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 Monroe 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 2017 Monroe County Hazard Mitigation Plan.

H.1.1 Earthquake

Known earthquakes events that have impacted New York State and Monroe County between 1857 and 2015 are identified in Table H.1. Many sources were researched for historical information regarding earthquake events in Monroe County; therefore, Table H.1 may not include all earthquake events that have impacted the County.



Table H.1. Earthquake History in Monroe County, 1857-2015

Dates of Event	Event Type	Location	FEMA Declaration Number	County Designated?	Losses / Impacts
October 23, 1857	“VI” on the Modified Mercalli Scale	Darien, Genesee County, New York	N/A	No	An earthquake in Darien, Genesee County, was measured as a “VI” on the Modified Mercalli Scale (HAZNY, 1999).
August 12, 1929	Magnitude 5.2	Attica, Wyoming County, New York	N/A	No	A magnitude-5.2 earthquake occurred in Attica, Wyoming County, new York (HAZNY, 1999).
1935	Magnitude 6.1	Along the Northern New York-Western Quebec Seismic Zone	N/A	No	A magnitude-6.1 earthquake occurred along the Northern New York-Western Quebec Seismic Zone (Democrat & Chronicle, 6.24.10).
1944	Magnitude 5.8	Massena, St. Lawrence County, New York	N/A	No	A magnitude-5.8 earthquake centered near Massena, St. Lawrence County was recorded as New York’s largest earthquake to date. Its epicenter was near Massena, St. Lawrence County. Shaking was felt from Canada to Maryland and from Indiana to Maine. \$2 million in damage was reported in Massena and in Cornwall, Canada (Democrat & Chronicle, 11.3.05).
January 1, 1966	Magnitude 4.7	Attica, Wyoming County, New York	N/A	No	A magnitude-4.7 earthquake in Attica, Wyoming County, New York, damaged the smokestack at the Attica Correctional Facility (Democrat & Chronicle, 11.3.05).
June 13, 1967	Magnitude 4.4	Attica, Wyoming County, New York	N/A	No	A magnitude-4.4 earthquake was recorded in Attica, Wyoming County.
October 7, 1983	Magnitude 5.2	Adirondacks, Blue Mountain Lake area, New York	N/A	No	A magnitude-5.2 earthquake in the Adirondacks, New York, Blue Mountain Lake area prompted RG&E to declare an “Unusual Event” Classification at Ginna Station (Peter Polfleit letter, 8-11-03). At the time, this was the third-largest earthquake ever recorded in the State of New York (Democrat & Chronicle, 9-26-98, 6.24.10) (Democrat & Chronicle, 6.24.10).
November 25, 1988	Magnitude 6.0	95 miles west of Quebec City, Canada	N/A	No	The epicenter of this earthquake was 95 miles west of Quebec City, in Canada. Measure was 6.0 on the Richter Scale (County Office of Emergency Management file).
October, 1990	Magnitude 4.7	120 miles northwest of Montreal, Canada	N/A	No	A magnitude-4.7 earthquake centered 120 miles northwest of Montreal, Canada, occurred. (Democrat & Chronicle, 9-26-98).
June, 1991	Magnitude 3.9	Schoharie County, New York	N/A	No	A magnitude-3.9 earthquake centered in Schoharie County, 40 miles west of Albany, New York, was felt by residents in the Monroe County towns of Irondequoit and Greece (Democrat & Chronicle, 6.24.10).
September 25, 1998	Magnitude 5.2	15 miles north of Sharon, Pennsylvania	N/A	No	A magnitude-5.2 earthquake whose epicenter was 15 miles north of Sharon, Pennsylvania, resulted in damage at two Monroe County residences, one with ceiling damage and one with front porch damage. (Gene Lenhardt, U.S. Army Corps of Engineers, telephone interview, 1-6-99)(County Office of Emergency Management Response File).



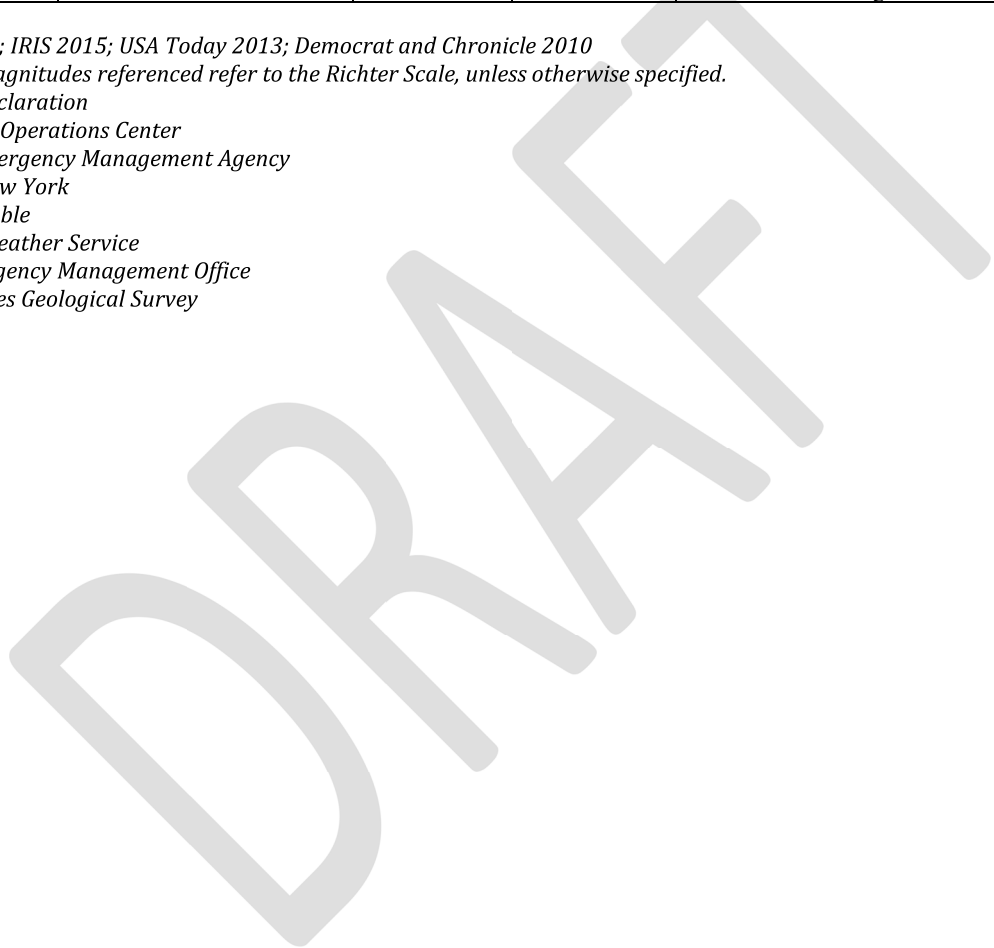
Dates of Event	Event Type	Location	FEMA Declaration Number	County Designated?	Losses / Impacts
January 1, 2000	Magnitude 4.5	North Bay, Ontario, Canada	N/A	No	A magnitude-4.5 whose epicenter was North Bay, Ontario, Canada, produced tremors felt in the Rochester area (Democrat & Chronicle, 4-2-02).
April 20, 2002	Magnitude 5.1	Town of Black Brook, Clinton County, New York	N/A	No	An earthquake with its epicenter roughly 15 miles southwest of Plattsburgh in the Town of Black Brook, Clinton County, New York, measured 5.1 on the Richter Scale and produced shaking which lasted about 30 seconds. Two aftershocks were reported. More than 300 people called Monroe County's 911 Center within 30 minutes of the quake. No reported injuries or damage in the County, although the State EOC was activated (Democrat & Chronicle, 4-21-02). (SEMO, "Emergency Management Times," Spring 2002, p.1).
October 31, 2005	Magnitude 2.6	Wayne County, New York	N/A	No	Two earthquakes occurred in Wayne County, New York, rattling the area over the course of 3 hours. USGS confirmed that the first of the 'micro-earthquakes,' which was felt about 7:00 p.m., had a magnitude of 2.6 and was centered in the Town of Ontario. The second was weaker, and struck at 11:38 p.m. under Lake Ontario, 15 miles northwest of the Town of Sodus (Wayne County). The second quake had a magnitude of 1.5, according to the USGS. The quakes did not produce enough disturbance to show on the Ginna Nuclear Power Plant's seismic register. (Democrat & Chronicle, 12.24.05).
March 8, 2008	Magnitude 2.7	10 miles north-northeast of Lancaster, New York	N/A	No	An earthquake with a depth of 6 kilometers had its epicenter 10 miles north-northeast of Lancaster, New York (Erie County) and a magnitude of 2.7. The USGS website indicated that there were 25 reports from people having felt this event, with a majority of reports located in the Buffalo, New York area (Erie County) (NWS, Judy Levan, e-mail, 3.19.08).
June 5, 2009	Magnitude 2.9	Attica, Wyoming County, New York	N/A	No	A 2.9-magnitude earthquake centered in Attica, Wyoming County, occurred at 11:07 a.m. The epicenter was 3 miles SSE of Attica and 5 miles south of Alexander, Genesee County. No damage was reported. (Democrat & Chronicle, 6.6.09).
Jun. 23, 2010	Magnitude-5.0	Centered north of Ottawa, Canada	N/A	No	A magnitude-5.0 earthquake struck at the Ontario-Quebec border region of Canada, shaking homes and businesses from Toronto to the states of New York, Michigan, and Vermont, according to the U.S. Geological Survey. The earthquake was centered at a depth of about 12 miles. Monroe County's 911 center had more than 80 calls about the earthquake just minutes after it occurred. The tremor was felt at numerous buildings in the City of Rochester, and some buildings were briefly evacuated.
May 17, 2013	Magnitude-4.4	13 miles northeast of Shawville, Quebec, Ontario, Canada	N/A	No	A 4.4-magnitude earthquake in Ontario, Canada, was felt starting at 9:43 a.m. May 17 from upstate New York to the Vermont border. People in communities along the St. Lawrence River and as far east as Lake Champlain on New York-Vermont border reported feeling their homes shake.



Dates of Event	Event Type	Location	FEMA Declaration Number	County Designated?	Losses / Impacts
					In Monroe County, the Rochester City 911 dispatch center received a small handful of calls in the half-hour after the earthquake. No injuries or damage to critical infrastructure were reported.

Source(s): FEMA 2014; IRIS 2015; USA Today 2013; Democrat and Chronicle 2010
 Note: All magnitudes referenced refer to the Richter Scale, unless otherwise specified.

DR Disaster Declaration
 EOC Emergency Operations Center
 FEMA Federal Emergency Management Agency
 HAZNY Hazards New York
 N/A Not Applicable
 NWS National Weather Service
 SEMO State Emergency Management Office
 USGS United States Geological Survey





H.1.2 Extreme Temperature

Information regarding specific details of temperature extremes in Monroe County is scarce; therefore, previous occurrences and losses associated with extreme temperature events are limited. Table H.2 summarizes the extreme temperature events in the County from 2005 through 2015.



Table H.2. Extreme Temperature Events between 2005 and 2015

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
January 21 – 27, 2005	Extreme low temperatures	N/A	N/A	Record low temperatures were set on the 21st (-10 degrees) and 22nd (-nine degrees), with below normal low's on the 23rd, 24th, 26th, 27th and 28th. There was an extended cold period from January 17 to February 2, with temperatures at zero or below on eight of these overnights.
July 12 – 13, 2005	Extreme Heat	N/A	N/A	This extreme heat event caused power outages throughout the county. The extended periods of heat and humidity, combined with an increase in air conditioning loads, put a significant stress on the power system. RG&E reported outages on July 12, which was caused by equipment malfunctions, some of which could have been heat related.
Summer 2005	Extreme Heat	N/A	N/A	The summer of 2005 was the warmest summer since 1973, and the fifth-warmest summer on record. The City of Rochester saw 13 days with temperatures in the 90s, with a high of 94 degrees on August 4). The summer also set five records for power use. The peak came July 18, when 1,626 megawatts of power were used. The summer recorded the fifth warmest June, the 20th-warmest July, and the 10th-warmest August in Rochester's history.
July 14 – 18, 2006	Extreme Heat	N/A	N/A	Temperatures began in the mid-to-high 80s with a corresponding heat index in the high 80s. Rochester General Hospital treated six patients with heat-related illnesses between the 15th and the 17th. RG&E customers set a 1-day usage record of an estimated 1,630 megawatts. The NWS reported that July 2006 was the hottest July in the City of Rochester since 1955.
August 1-2, 2006	Extreme Heat	N/A	N/A	<p>The National Weather Service, Buffalo Office issued an "Excessive Heat Warning" beginning August 1 at noon until August 2 in anticipation of high humidity combining with hot temperatures to make it feel like 105 degrees or greater (NWS Urgent- Weather Message, August 1, 2006, 0351 hours).</p> <p>Temperatures and their corresponding heat index were 94 degrees, 106 heat index on August 1 and 98 degrees 105 heat index on August 2.</p> <ul style="list-style-type: none"> • Power status as reported by RG&E: <ul style="list-style-type: none"> ○ August 1: Outage for 1,500 customers; power consumption set new record at 1,744 megawatts ○ August 2: Outage for 1,500 customers (These were new outages - the previous day's outages had already been restored.) • Activity influenced by this extreme temperature condition included: <ul style="list-style-type: none"> ○ County Health Department and Red Cross opening and staffing four cooling centers within the county ○ County Health Department opening and staffing a "Special Needs Cooling Center" for mobility impaired ○ City enforced the "Cool Sweep" (fire hydrants) program and extended swimming pool hours ○ Homeless Shelters adjusted hours of operation for access during the daytime hours



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				<ul style="list-style-type: none"> ○ Cancellations included" school district summer schools, community special events, summer day camps, Buffalo Bills Summer Camp Training Schedule; Finger Lakes Race Track (horse races) ○ Operations adjusted for DPW projects and construction workers, fire fighters ○ Sidewalk vendors altered and/or cancelled their lunch wagon services ○ The Governor waived fees for NYS Parks and NYSDEC sites on August 2 ○ Hospitals reported about a dozen heat-related Emergency Room visits <p>The Humane Society treated one dog suffering heatstroke</p>
January 26 – 30, 2007	Extreme low temperatures	N/A	N/A	Cold temperatures on the 26th prompted school closings, were blamed for traffic accidents as it was too cold for road salt to be effective, and prompted homeless shelters to extend hours of operation. Temperatures during this period were in the single digits.
February 3 -7, 2007	Extreme low temperatures	N/A	N/A	<p>January 28 began the longest stretch (22 days) of below-freezing temperatures in more than 25 years, and February was the coldest recorded in 14 years. This cold came from the same storm that affected a wide swath of the northern United States from the north Plains through the Great Lakes, with temperatures as low as minus 42 degrees. At least four cold-related deaths were recorded.</p> <p>Across this period from February 3 to 7, temperatures ranged from lows of 3 to 10 degrees below zero, with steady winds of 20-plus mph and gusts in the 40 mph range. The National Weather Service, Buffalo Office, issued a Wind Chill Advisory beginning on the 5th and ending the morning of the 6th. The following disruptions to community routine were reported during the weekdays (February 5 to 7):</p> <ul style="list-style-type: none"> • Many schools closed • Spencerport School District buses became stranded when their diesel fuel jelled, clogging fuel filters. No injuries, just significant transportation delays. • 700 AAA calls for service (double the norm) for dead batteries, stranded vehicles, and other cold weather-related problems. • Requests from the Open Door Mission in the City of Rochester for donations of warm clothing for the homeless • Traffic problems that were a result of ineffective snow melting <p>Amtrak passenger trains cancelled on the 4th and 5th, resumed with delays on the 6th.</p>
January 2009	Extreme low temperatures	N/A	N/A	The January temperature averaged more than 5 five degrees colder than normal, with 18 of the first 23 days recorded below freezing, breaking the previous 30-year record of 16.4 of 30 days in January. USDA crop losses reported in Monroe County for 2009 related to frost totaled \$6,848.
July 5-8, 2010	Extreme Heat	N/A	N/A	<p>Four days of 90-degree temperatures and higher in the City of Rochester prompted the following:</p> <ul style="list-style-type: none"> • Rochester City “Cool Sweep” program opened fire hydrants and extended swimming pool and beach hours



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				<ul style="list-style-type: none"> • Operations adjustments for Department of Public Works (DPW) projects and construction workers, fire fighters • Air Quality Advisory or Alert issued on July 4, 5, and 7. • The Humane Society issued reminders about pet safety in extreme heat conditions. • County Executive extended hours of operation for swimming at Ontario Beach Park • County Health Department planning for potential need to open a Special Needs Shelter at Monroe Community Hospital and issued a reminder of heat-related health symptoms and safety tips for high temperatures (Monroe County News Release, July 6, 2010) • Rochester Gas and Electric (RG&E) partnered with the Red Cross to distribute 250 electric fans at no charge to seniors and individuals or families receiving Social Security Income (SSI) or Social Security Disability (SSD) assistance. <p>USDA crop losses reported in Monroe County for 2010 related to heat totaled \$343,634, with the greatest losses affecting the sweet corn crop.</p>
January 22, 2011	Freeze and Extreme Cold	N/A	N/A	Monroe County experienced losses caused by a freeze and extreme cold event that occurred January 22, 2011. Conditions caused hundreds of farmers to suffer significant production losses around the region. USDA crop losses reported in Monroe County for 2011 related to frost totaled \$34,104 in apple crops.
March – April, 2012	Frosts, Freezes	N/A	N/A	<p>After a winter of record high temperatures, many crops in New York blossomed earlier than usual and were destroyed when exposed to early spring freezing temperatures occurring between March 1 and April 30.</p> <p>In March 2012, the county was designated a contiguous county in USDA Disaster (S3250) which resulted from frosts, freezes, unseasonable warm temperatures, and excessive heat, and was later designated as a primary county in Disaster S3249 resulting from frosts and freezes. USDA crop losses reported in Monroe County for 2012 related to freeze and frost totaled \$984,583.</p>
June 2012	Drought / Excessive Heat	N/A	N/A	<p>Temperatures averaged above normal in June for the Great Lakes climate division of New York State, where it was the 18th warmest June since 1895. At the same time, the climate division posted below normal rainfall for the fourth out of the 5 previous months.</p> <p>This event resulted in a USDA Disaster Declaration (S3427), and Monroe County was included as a contiguous county in this declaration. The county was considered to be abnormally dry for this time of year. USDA crop losses reported in Monroe County for 2012 related to excessive heat totaled \$79,286.</p>
December 2013 – March 2014	Frost / Freeze	N/A	N/A	The winter of 2013-2014 was one of the coldest in recent history for New York State. Temperatures finished below normal every month for the Rochester climate station, with the average temperature between November and April being 30.3°F, which was 3.4°F below normal. The January through March timeframe finished more than 4 degrees below normal. The Rochester station recorded seven new daily low temperature records: November 13 and 24, December 17, January 3 (low max and low min records), and 7, and March 6.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				<p>The long winter of sub-zero temperatures led to deep winter freezes, severely damaging farms, orchards, and vineyards across upstate New York. A survey of damaged farms by Cornell University reported primary bud damage as high as 85 percent in the Finger Lakes region and 97 percent in Lake Erie region.</p> <p>This event resulted in a USDA Disaster Declaration (S3672), and Monroe County was included as a contiguous county in this declaration. USDA reported 2014 indemnity losses in Monroe County of more than \$160,000 to its apple crop caused by frosts and freezes. Another \$10,626 was paid to apple crops as a result of the freeze in 2013, which may have been a result of the 2013-2014 winter season.</p>

Sources: NOAA-NCDC 2014; NWS 2014

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.

NOAA-NCDC National Oceanic Atmospheric Administration – National Climatic Data Center
 NWS National Weather Service
 NYS New York State



H.1.3 Flood

Known flooding events that occurred from 1972 to 2015 are identified in Table H.3. With flooding documentation for New York State and Monroe County being so extensive, not all sources have been identified or researched. Therefore, Table H.3 may not include all events that have occurred in the County.



Table H.3. Flooding Events in Monroe County Between 1972 and 2015

Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
June 23-26, 1972	Hurricane Agnes	DR-338	Yes	<p>Tropical Storm Agnes and associated weather systems produced the most destructive widespread flooding of record over eastern United States. In the Genesee Basin, the predominant portion of rainfall occurred from 9 p.m. on 20 June, to 6 a.m. on 23 June. The maximum total storm rainfall, 13.72 inches, and maximum daily rainfall, 6.57 inches, were recorded at the Wellsville gage. A “bucket survey” of the Genesee Basin by USACE personnel indicated a maximum of about 16 inches of rainfall in the upper reaches of Dyke Creek near Andover, New York. Average total basin rainfall during the period 20-25 June was 7.1 inches, while the average for the same period on the upper basin (above Mount Morris dam) was 10.20 inches.</p> <p>Regulation during a portion of this flood required controlled release of dam outflows exceeding downstream channel capacity to prevent overtopping the spillway with debris-laden flows. The reservoir pool reached a maximum elevation of 755.8 feet, thus occupying approximately 96 percent of total reservoir storage. This was the highest pool elevation ever attained in the Mount Morris Reservoir. Detailed information on this flood appears in Buffalo District’s “Report of Flood, Tropical Storm Agnes, 21-23 June 1972, Genesee River Basin,” dated August 1973 (USACE “Genesee River Flood Emergency Exercise Manual, February 1992,” p. H-4). Rochester received more than 4 inches of rain. Meanwhile, destructive floods washed out roadways and bridges, and even caused building damage on the upper Genesee River. It took nearly all summer to drain local fields (Democrat & Chronicle, June 22, 2006).</p>
1972	Lake Ontario - High Levels	N/A	N/A	None recorded.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
March 21, 1973	High Winds, Wave Action, Flooding	DR-367	Yes	FEMA Disaster Declaration.
Spring 1973	Coastal (Lacustrine) Flooding	N/A	N/A	The most severe flooding along the Lake Ontario shoreline was during spring 1973. Lake Ontario's water levels rose to 249.6 feet above sea level as a result of excessive rain in 1972 throughout the Great Lakes Basin. This level of water rise was recorded as having an approximately 100-year recurrence interval. Damages resulting from the water rise and associated flooding included extensive property damage, public utility interruption, and destruction of roads. Flooding also contaminated local water supply and reduced the effectiveness of effluent disposal (FEMA FIS 2008).
October 29, 1974	Localized Flooding	N/A	N/A	<p>A sewer tunnel being constructed under the Barge Canal in Bushnell's Basin cracked and gave way, sending over 200 million gallons of water down Tributary 21 and into Brook Hollow Rd. Because the flood was so localized, it was not designated a disaster area.</p> <p>41 homes damaged, 2 demolished Power outages in 165 homes 100 homes without gas Displaced residents Roads destroyed Millions of dollars in property damage 1 minor injury</p>



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
February and July 1976	Severe Storms, Heavy Rains, Flooding, and Thunderstorms	N/A	N/A	<p>During the period 16-23 February, approximately 2.6 inches of rain fell over the upper basin. This rainfall, augmented by about 2 inches of snowmelt runoff, resulted in a peak reservoir elevation on 23 February of 727.6, or about 71 percent of available storage. During the remainder of February, every effort was made to discharge as much water as possible consistent with downstream conditions. At the end of the month, the pool elevation was 709, or about 56 percent of capacity. During the period 1-6 March, about 2.5 inches of rain, including some snowmelt, caused the pool to rise again.</p> <p>On 6 March, the reservoir pool peaked at 744.1 feet, thus utilizing 85% of total storage. Peak inflows to Mount Morris Reservoir during the February and March runoff events reached 32,500 cfs and 28,000 cfs, respectively. Although the peak inflows were not particularly impressive, the volume of water received caused the pool elevation to be the second highest of record, exceeded only by that of Tropical Storm Agnes (USACE, "Genesee River Flood Emergency Exercise Manual, February 1992," p. H-4).</p>
March 28-30, 1993	Flood	N/A	N/A	<p>Flooding on some creeks and rivers. "The most significant occurred along Black Creek in Monroe County. A dozen homes along the creek were surrounded by water. Large segments of roads were inundated and still closed at months end. The Genesee River rose just above floodstage at Avon and Rochester even with closure of all gates at the Mt. Morris Dam. The dam stored over 5 inches of runoff and used 85% of its storage capacity." The County EOC was activated on March 30th for 4 hours.</p>
April 1-5, 1993	Flood	N/A	N/A	<p>Flooding continued as a result of additional rain and snowmelt—the worst flooding since Hurricane Agnes in 1972. The County EOC was activated on April 1st for 39.5 hours. Additional information is available at County OEM: USACE, "After Action Report for the Flood of 1993"; NOAA's, "Natural Disaster Survey Report: The Great Flood of 1993," and the County's Disaster Response File.</p>
April 1993	High Levels	N/A	N/A	<p>Lake Ontario. County files available at the OEM.</p>
March 23-24, 1994	Flood	N/A	N/A	<p>Rainfall combined with snowmelt caused flooding. Black Creek at Churchville reached flood stage on the 23rd. Oatka Creek reached flood stage at Garbutt on the 24th.</p>



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
April 14, 1994	Flood	N/A	N/A	Spring rains, together with saturated ground, raised the level of the Genesee River about a foot and a half above flood stage. A few roads had minor flooding.
January 21, 1995	Flood	N/A	N/A	Heavy rains on the 20th caused Black Creek to exceed flood stage and overtop its banks at various locations along its reach.
August 3, 1995	Flash Flood	N/A	N/A	Flash flooding in Monroe County caused \$35,000.00 in damages.
January 19, 1996	Rising Waters	N/A	N/A	The County EOC was activated for 2 hours to assess and coordinate agency activity associated with rising waters due to a "January Thaw" and rainfall.
April 14-15, 1996	Flood	N/A	N/A	A general 1- to 2-inch rainfall, combined with lingering snowmelt from higher elevations, resulted in considerable lowland flooding. Most major creeks and rivers rose to bankful. The Genesee River was above flood stage for 5 hours. Oatka Creek was above flood stage for 31 hours. Black Creek was above flood stage for 8 hours and caused \$15,000.00 in damages.
June 12, 1996	Flash Flood	N/A	N/A	Thunderstorms moving across the southern portion of the county produced torrential rains and caused flash flooding on the west side. Several roads in Chili were flooded and had to be closed until sewers could handle the storm runoff. Estimated property damage was \$20,000.00.
July 30, 1996	Flash Flood	N/A	N/A	Thunderstorms during the late afternoon hours dropped over 2 inches of rain within 4 hours, resulting in flash floods. The waters flooded over 200 basements in the City of Rochester and caused an estimated \$45,000.00 in damages.
October 19-20, 1996	Flash Flood	N/A	N/A	Flash flooding occurred, causing an estimated \$100,000.00 in damages.
1997	High Levels	N/A	N/A	Lake Ontario. County response files available at the OEM.
February 5, 1997	Dam Failure/Flood	N/A	N/A	An earthen dam gave way, causing flood waters to spill onto roadways and several backyards. Damage was estimated at \$4,000.00.
1998	High Levels	N/A	N/A	Lake Ontario. County response files available at the OEM.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
January 8 and 11, 1998	Flood	DR-1196	Yes	Western (and Central) NYS was drenched with unprecedented January rainfalls over a 36-hour period. Generally, 3 to 4 inches of rain fell on bare, saturated ground across the Genesee basin. The Genesee River crested at 36.4 feet at Avon (the highest since 1972) and at 16.8 feet in Rochester (the highest since 1984). Black Creek crested at Churchville at 9.2 feet (the highest since 1960). At Garbutt, Oatka Creek crested at 8.7 feet (a record flood). Damages were estimated at \$375,000.00. Local fire fighting and public works departments were called to pump water from flooded basements. The floodwaters overwhelmed several municipal wastewater treatments plants, and water emergencies were declared. Several States of Emergency were declared at various locations in Western/Central NYS. The Town of Webster had estimated damages of \$100,000.00 resulting from flash flooding. The County EOC was activated for 30 minutes on January 8th. This event prompted a Disaster Declaration by President Clinton, FEMA-1196-DR-NY.
June 13, 1998	Flood	N/A	N/A	Thunderstorms crossed the western Finger Lakes during the early evening hours, dropping several inches of rain in less than an hour. The heavy rains flooded roads and forcing closures throughout Monroe County. Chili Center had estimated damages of \$30,000.00.
June 25-July 10, 1998	Severe Storms and Flooding	DR-1233	Yes	FEMA Declared Disaster.
June 30, 1998	Flood	N/A	N/A	Thunderstorms throughout the day dropped several inches of rain over the same area. The heavy rains resulted in urban and drainage flooding in the Rochester metro area. The Town of Brighton had estimated damages of \$13,000.00.
July 8, 1998	Flood	N/A	N/A	Nearly 3 inches of rain fell at the Rochester airport, with slightly higher amounts reported over the southern suburbs. Urban flooding resulted in Rochester, Pittsford, and Penfield. In Penfield, basements of the Forest Hills Condominium complex flooded for the second time that year. Many of the basements and appliances had just been repaired and replaced following floods in January. The Town of Penfield had damages estimated at \$100,000.00, and the Town of Pittsford reportedly had \$150,000.00 in damages.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
August 25, 1998	Flood	N/A	N/A	Slow moving thunderstorms moved across the Rochester metro area producing 2 to 4 inches of rain in just a few hours. Widespread urban flooding occurred. The Sheriff reported numerous roads closed across the south and southeast areas of the County. Estimated damages were \$35,000.00.
January 23-24, 1999	Flood	N/A	N/A	Warm temperatures melted the snowpack from record snowfall in late December and early January. Nearly 2 feet of ripe snowpack dissolved to just a few inches. The runoff caused flooding in poor drainage and low lying regions across the area, with roads closed at some locations for a couple of days. One of the hardest hit areas in Monroe County was the Town of Chili, where evacuations occurred. Damages were estimated at approximately \$55,000.00.
May 12, 2000	Flash Flood	N/A	N/A	Thunderstorms rolled across the Niagara Peninsula and then along the Lake Ontario shore counties. Only small hail was reported with the storms; however, the storms produced hurricane-force winds. An 86 mph wind gust was recorded at the Niagara Coast Guard Station in Youngstown. The high winds buffeted the area, taking down trees and power lines. Various communities reported power outages of 12 hours or more. In Irondequoit, Monroe County, Kings Highway and Bayview Road caved in as a result of erosion.
May 13, 2000	Flash Flood	N/A	N/A	A second round of thunderstorms crossed the area during the early afternoon hours. The heavy rains that fell on already saturated ground resulted in flash flooding in Monroe and Wayne Counties. In Webster, for example, 4 to 6 inches of water covered Schlegel Road. Road closures were common in the area for several hours.
July 16, 2000	Flash Flood	N/A	N/A	Thunderstorms brought heavy rains to the area, dropping 2 to 3 inches of rain. West Henrietta and Jefferson, roads had to be closed due to the flood waters. In the City of Rochester, police closed Romona Street, Mt. Read Boulevard, and Lexington, Driving Park, and LaGrange Avenues. Damages were estimated at \$15,000.00.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
March 18, 2003	Flood	N/A	N/A	<p>An abrupt change to warmer weather at mid-month resulted in a quick meltdown of the winter snowpack. Area creeks rose to near or above bankful, with three creeks in western NYS exceeding flood stage. At Churchville, Monroe County, the Black Creek crested at 6.7 feet or about a half a foot above flood stage. Oatka Creek at Garbutt, Monroe County, crested at 6.2 feet, just above its 6-foot flood stage. Tonawanda Creek overflowed its banks, with flooding along the Erie/Niagara county border. The creek crested at 13.8 feet, almost 2 feet above the flood stage.</p>
May 24, 2004	Flash Flood	N/A	N/A	<p>A weak cold front crossed the area during the overnight hours. The slow moving thunderstorms that accompanied the front produced damaging winds and torrential rains. Trees and power lines were downed, with scattered power outages reported. Roads were closed in Irondequoit and Ishua.</p> <p>Additionally, NWS Buffalo Office data on flash floods indicated basement and road flooding in Irondequoit.</p>
August 29, 2004	Flash Flood	N/A	N/A	<p>A cold front stretching across the lower Great Lakes became nearly stationary. Occasional showers and thunderstorms persisted along the front during the late morning and early afternoon hours. The thunderstorm winds, estimated to 60 mph, downed trees and power lines in Caledonia, Livingston County; Henrietta and Brighton, Monroe County; Croghan, Lewis County; and Lorraine, Jefferson County. The training thunderstorms produced heavy rains, leaving parts of Monroe and Wayne Counties under water up to waist high. Weather radar estimated that rainfall totaled 4 to 6 inches over parts of those counties.</p> <p>Additionally, NWS Buffalo Office data on flash floods indicated widespread street flooding in Rochester.</p>



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
August to September, 2004	Severe Storms and Flooding	DR-1564	Yes	<p>Monroe County did not activate the EOC for this event. Hurricane Frances, "...inundated western and central New York with drenching rain as its remnants drifted north across the region. Areawide rainfall totaled 3 to 5 inches with the bulk of it falling in a 6- to 9-hour period from very late September 8th to midday September 9th. Several creeks recorded their greatest flows and highest gage levels ever in a non-winter/spring season. The heaviest rain was in a swath ...across Monroe and western Wayne counties, with between 3.5 to 4.5 inches" (NWS, The Lake Breeze, Spring 2006). The NYS, Buffalo Office issued a Flood Warning (0300 hours). Three villages and one town declared States of Emergency due to flooding and road closures. The Hilton Fire Department evacuated its Fire Station due to flooding. The Red Cross and local community shelters housed 163 evacuees. The Ogden Highway Superintendent evacuated two houses on Washington Street because flood waters from the Erie Canal had reached the first floor windows. OEM distributed 1,350 sandbags. The Red Cross distributed 75 clean-up kits. FEMA opened a Disaster Recovery Center at the Ogden Town Hall (November 22 – December 3, 2004) and deployed a Community Relations Team. FEMA financial assistance: \$256,481 – Public Assistance; \$1,964,092.96 – Individual Assistance; and \$72,426 – Mitigation, HMGP (OEM Disaster Response File).</p>
September 9, 2004	Flood	N/A	N/A	<p>Western and central New York were inundated by drenching rains as the remnants of hurricane Frances drifted north across the region on Thursday September 9th. Areawide rainfall totaled 3 to 5 inches, with the bulk of it falling within a 6- to 9-hour period from very late Wednesday to midday Thursday. Several creeks in the Buffalo and Rochester areas recorded their greatest flows and highest gage levels ever in a non-winter/spring season.</p>
April 3, 2005	Flood	N/A	N/A	<p>Deep low pressure over Pennsylvania brought copious amounts of precipitation to western and central New York...falling mainly as rain across much of the area. Rainfall totals generally ranged from 2 to 3 inches. The rain, combined with snowmelt, produced flooding. Basement flooding was reported in Gorham and Rochester. The heavy rains produced slick roads that were blamed for numerous automobile accidents in Monroe and Wayne Counties. Six area creeks and rivers reached flood stage.</p>



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
June 10, 2005	Flash Flood	N/A	N/A	<p>Slow moving thunderstorms produced 2 to 2.5 inches of rain within an hour over parts of Livingston and Monroe Counties. Creeks overflowed, and roads and homes flooded.</p> <p>Additionally, NWS Buffalo Office data on flash floods indicated basement flooding in Charlotte.</p>
July 14, 2005	Flash Flood	N/A	N/A	<p>Thunderstorms developed in an unseasonably hot and humid airmass during the late afternoon and early evening hours. The storms downed trees and power lines in Rochester, Lockport, Evans, Batavia, Orchard Park, and Spencerport. A house chimney was damaged by the downburst winds in Rochester. In Chili, a woman was slightly injured while talking on the telephone when lightning traveled through the home's telephone line. Also in Chili, a house fire on Chili Avenue Extension was blamed on a lightning strike. The heavy rains that accompanied the storms resulted in flash flooding in parts of Lewis and Monroe Counties. In the Rochester metro area, numerous reports were received of flooded roads and basements. In Turin, the flood waters washed out a portion of Fish Creek Road.</p> <p>Additionally, NWS Buffalo Office data on flash floods indicated basements flooded in Chili.</p>
July 16-17, 2005	Flood	N/A	N/A	<p>More than 0.5 inch of rain fell within 60 minutes and 20 minutes, respectively, during these evenings. The NYS, Buffalo Office reported that strength of the rain caused streets to look and feel like creeks. Lightning struck a house and caused a fire” (Democrat & Chronicle, July 18, 2005).</p>
September 16, 2005	Flood	N/A	N/A	<p>“...More than 2 inches of rain fell in the Rochester area within the span of three hours and 3.08 inches for the entire day. The amount broke a 130-year record of the day. ...Some residents experienced a severe backup of sewer lines into their basement. Water from flooded streets was blamed...as well as surcharging of basement drains” (Democrat & Chronicle, October 22, 2005). “This rainfall fits the definition of flash flooding” (Democrat & Chronicle, September 18, 2005).</p>



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
June 26-28, 2006	Flooding	N/A	N/A	<p>Monroe County resources responded to flooded Southern Tier counties when called for Mutual Aid. Ambulances, Special Operations tactical teams from the Fire Service, and 911 Dispatchers deployed in Task Forces and Strike Teams through requests from the NYS Fire Mobilization Plan, the NYS Department of Health, and local Emergency Managers for assistance with specific assets (OEM Disaster Response File).</p>
July 12, 2006	Flash Flood	N/A	N/A	<p>A warm front stretching across the region focused heavy rain over the counties along the south shore of Lake Ontario. Two to 4 inches fell across Orleans and Monroe Counties, with more than 5 inches over a portion of Wayne and northern Cayuga Counties. The rains inundated roads, buildings, and crops. Sections of roads were washed away in Wolcott, Irondequoit, and Webster, among others. Cars damaged in high water numbered in the thousands. States of Emergency were declared in several towns and villages, including Wolcott. The rain water inundated agricultural fields, and hundreds of thousands of dollars' worth of squash, potatoes, and corn were ruined.</p> <p>Rochester's rainiest July day on record (3.33 inches) overflowed creeks, flooded basements, and even created sinkholes behind some Irondequoit homes. Thirty percent of city firefighters' calls were for water-related problems. In Irondequoit, the force of water pushing through a drainage system forced the ground to implode, creating a 25-foot-wide by 10-foot-deep crater. The heavy showers came in a series of training storms. Flooding closed a portion of Interstate Route 390, and stranded cars in several shopping center parking lots. NYS Route 404 was closed after a 25-foot-wide sinkhole formed. Localized flash flooding resulted in drain and sewer back-ups, many of them clogged by debris. The County Health Department discouraged swimming in Lake Ontario for 72 hours due to heavy discharge from streams, bays, and the Genesee River (Democrat & Chronicle, July 13, 2006; July 14, 2006). The Erie Canal was re-opened. A significant stretch had been closed due to flooding, stranding boaters for up to 2 weeks (Democrat & Chronicle, July 15, 2006).</p> <p>Additionally, NWS Buffalo Office data on flash floods indicated Rochester I-390 closed.</p>



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
July 28, 2006	Flood	N/A	N/A	“Heavy rain... caused flooding and accidents throughout the area. Parts of the Empire State Games were delayed. Nearly 2 inches of rain fell at the Airport, and 3 inches fell in Webster. Numerous accidents were reported and NYSDOT closed a portion of Route 104 due to flooding. Rochester firefighters pumped water from the roof of Rural/Metro Medical Services. And, the rainfall is believed to have caused a landslide in Irondequoit at German Village” (Democrat & Chronicle, July 29, 2006).
March 14, 2007	Flood	N/A	N/A	Saturated ground, snowmelt from warm weather, and additional rainfall constituted ideal conditions for spring flooding. Thirteen of the area river and creek forecast points exceeded flood stage.
March 15, 2007	Flood	N/A	N/A	Saturated ground, snowmelt from warm weather, and additional rainfall constituted ideal conditions for spring flooding. Thirteen of the area river and creek forecast points exceeded flood stage. (Continuation of event from day prior.)
April 15-28, 2007	Coastal Flood	N/A	N/A	A Nor’easter that battered the East Coast affected our area beginning on the 15 th , with the NWS, Buffalo Office issuing a Coastal Flood Advisory that included the Lake Ontario shoreline in Monroe County. The 911 Center deployed “HyerReach” calls to more than 2,200 homes along the shore to inform occupants of the impending flood threat and to encourage them to take precautionary measures in response to the rising water. The County Parks Department placed sandbags around the historic carousel at Ontario Beach Park to mitigate wave run-up and water damage. NOTE: Subsequent to this storm, Monroe County provided sandbags to shoreline municipalities for residential and business flood fighting efforts. Conditions in other areas affected airline transportation, imposing delays and cancellations at the Rochester Airport. About 4.7 inches of snow prompted extended shifts for DPW crews and several motor vehicle accidents. Black Creek flooded on the 17 th , prompting a Flood Warning by the NWS, Buffalo Office. Monroe County closed Ellison Park due to flooding on Irondequoit Creek. The city fire department responded to about 25 structural damage calls due to the weather. Precipitation on the 16 th set a new daily record of 1.1 inches of rain at the Airport (Democrat & Chronicle, April 16, 2007; April 18, 2007; OEM Disaster Response File; Monroe County New Release, April 30, 2007).



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
April 2007	High Levels	N/A	N/A	<p>“A nor’easter earlier in April, recent rainfall and snow that’s still melting have delayed the opening of New York’s canal system, traditionally scheduled to open on May 1st. Until water levels recede, operations to place water control structures in position and set buoys and other critical navigational aids cannot commence” (Democrat & Chronicle, April 30, 2007).” “ ‘The flooding from last month’s nor’easter might seem mild if the thousands of dams in the state continue to decline,’ Senator Charles Schumer said. There are nearly 2,000 federally recognized dams in New York...and the April storm exposed serious flaws in dams.” (Democrat & Chronicle, May 8, 2007).</p>
July 23, 2008	Flash Flood	N/A	N/A	<p>Thunderstorms developed across the area, including in Monroe County, as an upper level low was centered over the Great Lakes region. Storms developed rapidly along an outflow boundary from the Niagara Peninsula to Erie County. Thunderstorms that developed produced damaging winds estimated to 60 mph and hail measured up to 1 inch in diameter. Scattered power outages were reported. The storms also dropped several inches of rain within a short span of time over parts of Rochester, resulting in flash flooding. Nearly 1 foot of water across the road resulted in closing of portions of Interstates 490 and 390 for several hours right at the start of the evening rush hour.</p> <p>Additionally, NWS Buffalo Office data on flash floods indicated 2W Rochester Rte 490 closed between Mt. Read and 390.</p>
December 28, 2008	Flood	N/A	N/A	<p>Unseasonably warm temperatures in the 60s, combined with 1.25 inches of rain, melted a snowpack of 4 to 8 inches. This resulted in flooding of creeks and streams in western NYS. In Monroe County, low-lying areas, roadways, and basements flooded, and some evacuations were ordered.</p>
February 12, 2009	Flood	N/A	N/A	<p>A major thaw and additional rainfall resulted in rapid snowmelt and runoff, with several area creeks exceeding their flood stages. Two to 5 inches of water in the snowpack quickly melted as temperatures climbed into the upper 50s and 60s. Some backyard and basement flooding occurred from Churchville to Chili.</p>



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
March 9, 2009	Flood	N/A	N/A	Soaking rains over a 4-day period beginning on the 7th provided the region (including Monroe County) with nearly all of the month’s precipitation, between 2 and 3 inches. The rain combined with the melting winter snowpack and frozen ground to result in widespread flooding on area rivers and creeks. Numerous reports of road closures along those rivers and creeks were received. This was the third winter flood event this season, a rare occurrence in western NYS.
June 2009	Flood	N/A	N/A	“The last week of June featured a variety of weather (including) thunderstorms that produced localized flooding (in Monroe County)...” (Democrat & Chronicle, July 2, 2009).
July 13, 2010	Flash Flood	N/A	N/A	<p>An area of low pressure slowly moved across the region, bringing rainfall amounts of up to 2 inches in some areas. The heavy rains produced localized flash floods that flooded some homes and roads. Roads reported closed by flood waters included: Blossom Road in Rochester (three cars stuck in water at least 3 feet deep), County Route 26 in Canadice and Richmond (a mudslide deposited up to 4 feet of mud in some areas), State Route 64 in Bristol Center (closed from County Rte 32 to Dugway Road), and County Route 33 in Honeoye.</p> <p>At 1447 hours, the NYS, Buffalo Office issued a Flash Flood Warning for “Eastern Monroe County, including the City of Rochester, Irondequoit, East Rochester and Brighton until 1745 hours” (NWS Bulletin, July 13, 2010).</p>
August 14, 2011	Flash Flood	N/A	N/A	Heavy rains and embedded thunderstorms dropped up to 4 inches of rain over parts of the region within just a few hours. Flash flooding occurred in Allegany County, where roads were flooded and closed in Cuba and Canadea. In metro Rochester, Monroe County, major roads such as I-490 and I-590 were closed. Cars were submerged to the windows in some areas. Flash flooding was also reported in Webster and Irondequoit.
April 13, 2013	Flood	N/A	N/A	A warm frontal boundary lifted north and stalled across the lower Great Lakes, leading to a period of significant rainfall across the region between the 9th and 12th. The rainfall pushed many area streams and creeks in western NYS above action stage. Black Creek at Churchville exceeded flood stage (6 feet) for around 21 hours, cresting at 6.37 feet. This resulted some backyard and basement flooding in Churchville and Chili.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
June 13, 2013	Flood	N/A	N/A	A warm front associated with a low pressure system that moved across the Ohio Valley and Pennsylvania resulted in a swath of 1 to 2 inches of rain from the Rochester metro area east to near Fulton. This created minor flooding issues on area roadways, along with flooding of Ellison Park in Rochester when Irondequoit Creek rose above bankful. The creek crested at 9.23 feet around 4 p.m. on the 14 th , and receded to its banks on the morning of the 15 th .
July 3, 2013	Flood	N/A	N/A	Thunderstorms developed over the northern Finger Lakes along a lake breeze in a warm humid air mass. The thunderstorms produced damaging winds that downed trees and power lines. These were reported in Shelby Center, Fairport, Pittsford, Macedon, Palmyra, Newark, and Lyons. The thunderstorms also produced hail up to 1 inch in diameter in Waterport. Between 1.5 and 2.5 inches of rain was measured across parts of Monroe and Wayne Counties. This amount of rain within a very short time resulted in poor drainage flooding in the City of Rochester. Several city streets were inundated, included Amsterdam Road and Monroe Avenue.
December 22, 2013	Flood	N/A	N/A	A surface front stalled across the region acted as a pathway for periods of heavy precipitation. Rainfall amounts of 1.5 to 3.0 inches fell across the Niagara Frontier and parts of the Genesee Valley and Finger Lakes. The heavy rain combined with snowmelt to produce flooding. In addition to many of the gauged rivers and creeks reaching flood stage, flooding in low-lying and poor drainage areas was common. In urban areas, runoff of the heavy rain and snowmelt was hindered by snow- and ice-clogged storm drains.
May 13-22, 2014	Flood	DR-4180	No	On the 16 th , heavy rain along a slow moving cold front produced flooding across parts of the Genesee River valley and Finger Lakes region. Rainfall amounts of 2 to 3 inches fell on already rain-soaked soils. Honeoye Creek crested at 5.63 feet, a moderate flood. It was the fourth highest crest on record, causing flooding in and around the Village of Honeoye Falls. Roads were reported flooded in Monroe County in Brighton and Fairport. Resulting damages were enough to warrant a State Disaster Declaration. Monroe County had a public sector cost of \$87,377.48 for flood damages or other costs (i.e. labor costs associated with maintaining sewer systems) for this event.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
July 28, 2014	Flash Flood	N/A	N/A	Low pressure slowly moved across western and central New York, and brought heavy rains and embedded thunderstorms to the region. Rainfall totaled 3 to 6 inches during the afternoon hours and resulted in flash flooding in several areas of the Finger Lakes region. In Monroe County, flooding was reported in Riga, Caledonia, and South Chili. The NYS Thruway was forced to close between Exits 46 and 47. In Honeoye, a bridge on Cole Road washed out, as did portions of Egypt Road in Bristol.
August 1, 2014	Flood	N/A	N/A	Thunderstorms developed in a moderately unstable airmass along the lake breeze boundary that extended across the lower Genesee Valley and Western Finger Lakes. The thunderstorms produced damaging winds that downed trees and wires in Greece and Newark. Hail also fell during the storms: 1-inch hail was reported in Rochester, and 0.75-inch hail covered the ground in Newark. Heavy rains resulted in urban flooding. Storm sewers could not contain flows from the intense rainfall, and streets closed in Newark and Greece.

Source(s): FEMA 2014, NYS DHSES 2014, NCDC 2014, NWS 2010; Democrat & Chronicle 2010; USACE 2010; Monroe County 2010

Notes:

Monetary figures within this table are 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.

- DHSES Division of Homeland Security and Emergency Services
- DPW Department of Public Works
- DR Federal Disaster Declaration
- EOC Emergency Operations Center
- FEMA Federal Emergency Management Agency
- FIS Flood Insurance Studies
- HMGP Hazard Mitigation Grant Program
- mph Miles per hour
- N/A Not applicable
- NCDC National Climate Data Center
- NOAA National Oceanic and Atmospheric Administration
- NYS New York State
- NYSDOT New York State Department of Transportation
- OEM Office of Emergency Management
- USACE U.S. Army Corps of Engineers





H.1.4 Severe Storm

Known severe storm events that occurred from 1972 to 2015 are identified in Table H.4. With severe storm documentation for New York State and Monroe County being so extensive, not all sources have been identified or researched. Therefore, Table H.4 may not include all events that have occurred in the County.



Table H.4. Severe Storm Events between 1972 and 2015

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
June 23, 1972	Tropical Storm Agnes	DR-338	Yes	Not listed.
June 6, 1973	Thunderstorm Wind	N/A	N/A	Unofficially, the Rochester Airport (at the FAA Tower) had a wind gust of 100 mph (Democrat & Chronicle, 2.22.06, 2.12.09).
November 12, 1992	Thunderstorm Wind	N/A	N/A	The County EOC was activated for 13.25 hours for a severe wind storm that knocked out power, and downed trees and power lines (County Office of Emergency Management, Disaster Response File: 1992 Wind Storm).
August 13, 1993	Thunderstorm Wind	N/A	N/A	Thunderstorms developed in a moist flow ahead of a cold front. The thunderstorm winds downed trees and power lines. Hail up to an inch in diameter was reported with the storms. Some structural damage was reported from fallen trees and limbs. Damage was estimated at \$4,000.00 for Fairport.
August 28, 1994	Thunderstorm Wind	N/A	N/A	Thunderstorms developed in a moist, southwest flow ahead of a cold front. The thunderstorm winds downed trees and power lines, resulting in power outages scattered across the region, including Webster and Spencerport. Damage was estimated at \$4,000.00.
June 26, 1995	Thunderstorm Wind	N/A	N/A	Severe thunderstorms moved across portions of Western and Central New York. The thunderstorm winds downed trees and power lines. Power outages were scattered across the entire area. Damage estimates were \$6,000.00 for Pittsford and \$10,000.00 for Macedon Center.
July 6, 1995	Thunderstorm Wind	N/A	N/A	Severe thunderstorms moved across the area ahead of a cold front. There were numerous reports of downed trees and wires and power outages. Damage was estimated at \$8,000.00 for Penfield.
July 15, 1995	Thunderstorm Wind	N/A	N/A	The County EOC was activated for 3 hours to assist coordination of resource identification and deployment to northern New York State after a “Wind Burst” (County Office of Emergency Management, Disaster Response File: July 1995 North Country Wind Burst).
July 17, 1995	Thunderstorm Wind	N/A	N/A	Thunderstorms with wind caused damage estimated at \$4,000.00 for Brockport.
August 3, 1995	Thunderstorm Wind	N/A	N/A	Severe thunderstorms crossed the area resulting in fallen trees and power lines, nearly continuous lightning and record rainfall. In Monroe County, traffic was disrupted by flash flooding caused by over 2 inches of rain in a very short time. Numerous power outages were also reported. Damage was estimated at \$25,000.00 for Rochester, \$5,000.00 for Henrietta, and \$35,000.00 for the county.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
August 31, 1995	Thunderstorm Wind	N/A	N/A	A fast moving line of severe thunderstorms crossed the region causing widespread damage. There were countless reports of downed trees and power lines, many onto cars and houses. Several SKYWARN observers recorded wind gusts of 60-70 mph as the storms moved through. Damage was estimated at \$8,000.00 for Irondequoit.
January 27, 1996	Thunderstorm Wind	N/A	N/A	Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines in Mendon. Damage was estimated at \$15,000.00.
March 25, 1996	Thunderstorm Wind	N/A	N/A	Thunderstorms accompanying a cold front produced damaging winds, which downed trees and power lines. Damage was estimated at \$20,000.00.
April 20, 1996	Thunderstorm Wind	N/A	N/A	Severe thunderstorms developed in the late afternoon. The thunderstorms dropped large hail across the region. Thunderstorm winds downed trees and power lines. Damage was estimated at \$15,000.00 for Hamlin.
May 20, 1996	Thunderstorm Wind	N/A	N/A	A line of severe thunderstorms crossed the area producing damaging winds. The thunderstorm winds downed trees and power lines. In Riga, the winds damaged a large road sign. Damage was estimated at \$35,000.00.
June 22, 1996	Thunderstorm Wind	N/A	N/A	Severe thunderstorms produced damaging winds, which downed trees and power lines. Damage was estimated at \$8,000 for Irondequoit.
October 30, 1996	Thunderstorm Wind	N/A	N/A	Low pressure moving northeast across Lake Superior brought strong winds to the area. The winds brought down trees, tree limbs, and power lines. In Penfield, two persons were injured when a tree fell on the car they were driving. Winds gusted to 52 mph. Damage was estimated at \$25,000.00.
February 22, 1997	Thunderstorm Wind	N/A	N/A	A strong cold front crossed the region during the morning hours. Temperatures dropped 40 to 45 degrees with the passage of the front. The funneling effect of the Great Lakes combined with rapid pressure rises behind the front combined to produce hazardous winds. Trees, power lines, and poles were downed across the entire area. Hundreds of thousands were left without power. Reports of homes and autos damaged by the falling trees and branches were numerous. The strong winds caused structural damage in some locations tearing off roofs and shingles, blowing-out windows, and collapsing walls. Air travel from the Buffalo and Rochester airports was interrupted. A 54-year-old volunteer fireman was killed in Spencerport while responding to an emergency call when a large tree fell on his car, crushing him. His 15-year-old son also riding in the car suffered injuries. Reported gusts included: 61 knots at Rochester. Damage was estimated at \$500,000.00.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
February 27, 1997	Thunderstorm Wind	N/A	N/A	Deep low pressure moved from Indiana to Ontario bringing high winds to the area. The strong winds downed trees and telephone and power lines. Power outages were reported throughout the area. Several cities and towns declared States of Emergency because of the prolonged lack of power. Windows were blown-out of buildings. The strong winds caused structural damage in some locations tearing-off roofs and sidings and collapsing walls. Home and autos were damaged by falling limbs. An electric lineman was injured in Perinton, when he was knocked from a pole by a falling tree. Damage was estimated at \$150,000.00.
July 15, 1997	Thunderstorm Wind	N/A	N/A	Strong thunderstorms crossed the region during the afternoon hours. The thunderstorm winds downed trees and power lines. Scattered power outages lasting several hours were reported. In Henrietta, numerous utility poles were downed by the thunderstorm winds leaving nearly 24,000 customers in the Rochester area without power for several hours. Damage was estimated at \$75,000.00 for Henrietta.
September 29, 1997	Thunderstorm Wind	N/A	N/A	Severe thunderstorms rolled across the area during the evening hours producing damaging winds estimated at sixty to seventy miles per hour. The winds downed trees and power lines and resulted in thousands being left without power. Damage was estimated at \$15,000.00 for Penfield.
March 28, 1998	Thunderstorm Wind	N/A	N/A	A fast moving squall line crossed the area during the afternoon hours. Winds, gusting over 70 mph, downed numerous trees and wires. Power outages were reported throughout the area. Damage was estimated at \$40,000.00.
May 31, 1998	Thunderstorm Wind	N/A	N/A	<p>An outbreak of severe storms began across the region during the early morning hours. The storms were particularly dangerous because of their speed moving across the region – sometimes in excess of 60 mph. Most of the damage associated with these storms occurred from a combination of high winds and hail. There were reports of numerous trees and wires down as well as power outages. Tens of thousands were without power. Several flights were delayed or cancelled at the Buffalo and Rochester airports due to the storms. Damage was estimated at \$18,000.00 for Gates Center, \$17,000.00 for Hamlin, \$15,000.00 for Scottsville, and \$15,000.00 for Rochester. A person in Henrietta was struck by lightning.</p> <p>A second round of storms for the day moved across the region during the evening hours. Again the thunderstorms produced high winds, large hail and torrential rains. Trees and power lines were downed across western New York. In the Rochester area, the power company reported 30 poles snapped by the winds and 40,000 customers were without power. Lightning throughout the area shattered trees and set a number of fires. At Locust Hill Country Club, the nationally televised Ladies Pro Golf Association tournament was delayed four times by the storms. Damage was estimated at \$30,000.00 for Rochester.</p>
June 16, 1998	Thunderstorm Wind	N/A	N/A	Scattered thunderstorms crossed the area during the early evening hours. The thunderstorm winds downed trees and power lines. The heavy rains, which accompanied the thunderstorms, resulted in widespread poor drainage and urban flooding in the Rochester metro area. Damage was estimated at \$40,000.00 for Rochester.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
June 25, 1998	Thunderstorm Wind	N/A	N/A	Thunderstorms, accompanied by almost continuous lightning, torrential rains, damaging winds, and pea to marble-sized hail swept across the area. Over 15,000 were without power when thunderstorm winds downed power lines and poles. Damage was estimated at \$10,000.00 for Webster.
August 24, 1998	Thunderstorm Wind	N/A	N/A	Thunderstorms moved across the southern Lake Ontario counties during the early morning hours. The thunderstorms produced damaging winds, which downed trees and power lines. Several thousand customers were left without power for several hours. Winds were estimated in some areas at 60-70 mph. Damage was estimated at \$50,000.00 for Greece.
September 6-7, 1998	Thunderstorm Wind	N/A	N/A	<p>Several thunderstorms moved onshore over northeast Niagara County shortly before midnight. The line of storms quickly moved across Orleans, Monroe, Wayne, Ontario and northern Cayuga counties. Across the area the damage path was nearly 100 miles long and 5 to 10 miles wide. Winds were estimated between 80 and 100 mph throughout the 2-hour event. Along the entire path, damage and debris all laid in an easterly direction consistent with the damage from straight-line winds. Most of the damage consisted of downed trees and limbs. The falling trees and limbs in-turn downed power and telephone lines and resulted in damage to buildings and automobiles. Power outages, some lasting nearly a week, were widespread across parts of Orleans, Monroe and Wayne counties. Hundreds of thousands of customers were without power. The strong winds themselves also resulted in structural damage to homes, barns and buildings along the path including some in Brockport and Bushnell's Basin among other locations. Several aircraft were damaged at the Rochester Airport where wind gusts were measured at 89 mph. States of Emergency were declared throughout Monroe and Wayne counties and sections of Orleans County. Monroe, Wayne, and Cayuga counties were declared federal disaster areas. The strong winds severely damaged apple crops and trees from Niagara across Orleans and Monroe through Wayne counties. Damage was estimated at \$20 million for the Rochester Airport, \$350,000.00 for Brockport, \$1.2 million for Pittsford, and \$2 million in crop damages.</p> <p>This storm, known locally as the "1998 Labor Day Windstorm," was later classified by the National Weather Service as a derecho. Its associated straight line winds were predominant on a path that followed the Erie Canal and NYS Route 31, from Orleans County stretching almost to Albany. The County EOC was open for 113.75 hours. The Presidential Disaster Declaration on September 22, 1998 for seven counties identified this storm as FEMA-1244-DR-NY. Reimbursement to all counties for public assistance was \$36.1M. Of that amount, Monroe County communities received \$4M (County Office of Emergency Management, Disaster Response File: 1998 Labor Day Windstorm).</p>



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
November 10, 1998	Thunderstorm Wind	N/A	N/A	Low pressure over the central plains moved across the Great Lakes and brought high winds to western New York and the North Country. The strong winds, gusting to 62 mph, brought down tree limbs and power lines across the region. Several windows were blown-in. In East Rochester, several buildings were damaged as walls were blown-in. One cinderblock wall was over 30 feet high and 100 feet long. Thousands were without power as outages were scattered across the area. Power outages were reported in Victor and Rochester as well as other cities and towns in the region. Damage was estimated at \$150,000.00.
July 3, 1999	Thunderstorm Wind	N/A	N/A	Several thunderstorms crossed the region during the late afternoon hours. The thunderstorms produced heavy downpours, up to three inches in some spots, strong winds and large hail. The heavy downpours resulted in localized poor drainage flooding. The strong winds downed trees and power lines throughout the region. Structural damage was also reported. Greece reportedly had \$25,000.00 in damage.
July 24, 1999	Thunderstorm Wind	N/A	N/A	Severe thunderstorms developed across the counties along the south shore of Lake Ontario. The thunderstorms produced downpours and strong winds. The damaging winds downed trees and power lines with scattered outages reported. Greece reportedly had \$15,000.00 in damage.
July 31, 1999	Thunderstorm Wind	N/A	N/A	Violent thunderstorms ripped across western New York and the Finger Lakes Region during the evening hours. The strong thunderstorms downed trees and power lines and left hundreds of thousands without power. Several roads were blocked by fallen debris. Several of the falling trees caused damage to houses and automobiles. In Monroe County, at the Freeman Park in Mumford four people at a company picnic were injured when high winds picked up a tent and dragged it through the crowd. They were treated and released from an area hospital.
August 4, 1999	Thunderstorm Wind	N/A	N/A	Severe thunderstorms crossed the Finger Lakes during the late afternoon hours. The thunderstorms produced damaging winds, which downed trees and power lines. Damage was estimated at \$8,000.00 for Rochester.
October 13, 1999	Thunderstorm Wind	N/A	N/A	A strong cold front crossed the area. The thunderstorms that accompanied the front produced damaging winds and large hail. The winds downed trees and power lines. About 10,000 customers lost their power. Falling trees damaged houses in Webster among other areas. Damages in Webster were estimated at \$35,000.00.
November 2, 1999	Thunderstorm Wind	N/A	N/A	An intense storm, which moved from the eastern Gulf of Mexico to New Western New York, brought high winds to the region. Trees and lines were downed and power outages were scattered throughout the area. In Rochester, an overhead highway sign was blown into the path of a minivan. A 41-year-old male driver died, while his wife and daughter were not injured in the accident. Damage was estimated at \$100,000.00.
January 4, 2000	High Wind	N/A	N/A	Strong winds accompanied the passage of a cold front across the area during the late morning and early afternoon hours. Trees and power lines were downed by the winds. In Rochester, a smokestack was blown over. Gusts of 55 mph at Rochester were recorded. Power outages were scattered throughout the area. Damage was estimated at \$50,000.00.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
March 9, 2000	Thunderstorm Wind	N/A	N/A	Spring thunderstorms rolled-in off Lake Ontario during the afternoon hours. The storms produced 3/4 inch hail and damaging winds that downed trees and power lines. Damage was estimated at \$25,000.00.
May 12, 2000	Thunderstorm Wind	N/A	N/A	Thunderstorms rolled across the Niagara Peninsula and then along the Lake Ontario shore counties. Only small hail was reported with the storms, however the storms produced hurricane-force winds. The high winds buffeted the area taking down trees and power lines. Various communities reported power outages of 12 hours or more. In Irondequoit, Kings Highway and Bayview Road caved-in as a result of erosion. Damages in Gates Center were estimated at \$35,000.00.
May 24, 2000	Thunderstorm Wind	N/A	N/A	Thunderstorms roared across the Genesee Valley and the Finger Lakes Region during the late morning and early afternoon hours. In addition to producing hail up to one inch in diameter, the thunderstorms produced damaging winds. Damage was estimated at \$8,000.00 for Henrietta.
August 1, 2000	Thunderstorm Wind	N/A	N/A	Thunderstorms developed along lake breezes during the afternoon hour. The thunderstorm winds downed trees and power lines. In addition to producing hail up to an inch and a quarter in diameter, the thunderstorms produced torrential rains, which resulted in localized poor drainage flooding. Damage was estimated at \$25,000.00 for Brockport.
December 12, 2000	Thunderstorm Wind	N/A	N/A	Deep low pressure over Ohio tracked northeast across the region. The strong pressure gradient on the back side of the low combined with rapid pressure rises resulted in very strong northwest winds across the region. The damaging winds downed trees and lines throughout the area. Specific reports of damage were received from Spencerport along with many other areas outside of Monroe County. Nearly 100,000 customers were without power across the region. Flights on the morning of the 12th were either delayed or cancelled at both the Buffalo Niagara International Airport and the Rochester Airport. Damage was estimated at \$200,000.00.
February 10, 2001	Thunderstorm Wind	N/A	N/A	Deep low pressure over the western Great Lakes moved across Ontario to Quebec and dragged a cold front across the area. Sustained winds of 20 to 30 mph were reported across the area with recorded gusts up to 76 mph. The strong winds downed trees and utility lines throughout the 14-county area. Several hundred thousand customers were without power. Roads were blocked by downed trees. There were numerous reports of property damage from the winds, mostly from trees falling on buildings and cars. Specifically, this was reported from Pittsford and Honeoye Falls along with many other areas outside of Monroe County. In Fairport, a winter carnival had to be cancelled because the high winds tore apart a large tent erected for the carnival. Damage was estimated at \$300,000.00.
February 25, 2001	Thunderstorm Wind	N/A	N/A	Deep low pressure over the northern Great Lakes moved northeast to Quebec and pulled a strong cold front across the area. The strong winds that accompanied the system downed trees and power lines. Sustained winds of 51 mph were reported at the Rochester Airport. Damage was estimated at \$100,000.00.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
May 27, 2001	Thunderstorm Wind	N/A	N/A	Thunderstorms crossed the area during the afternoon hours producing hail up to ¾ inch in Gates Center and damaging winds estimated to 68 mph. Trees and power lines were downed by the strong winds in western Monroe County. Damage was estimated at \$5,000.00 in Gates Center and \$20,000.00 in Rochester.
July 1, 2001	Thunderstorm Wind	N/A	N/A	Thunderstorms ahead of a cold front crossed the western Finger Lakes Region and Eastern Lake Ontario counties during the morning hours. The storms produced damaging winds, which downed trees and power lines across the area. Damage was estimated at \$10,000.00 in Webster.
July 10, 2001	Thunderstorm Wind	N/A	N/A	Strong thunderstorms moved across parts of the Finger Lakes Region during the late evening hours. The storms downed trees and power lines in Chili. Damage was estimated in Chili Center at \$10,000.00.
February 1, 2002	Thunderstorm Wind	N/A	N/A	An intensifying storm moved across the Great Lakes and lifted northeast to the St. Lawrence Valley. Very strong winds behind the low blasted the region with wind gusts exceeding 55 mph. Trees and power lines were downed by the strong winds. Hundreds of thousands were without power...some for several days. Fallen trees and limbs littered the area and closed roads. Numerous reports of damage to homes and automobiles were received from throughout the area. Driving bans and States of Emergency were declared in several counties. Numerous school districts were forced to close on the first and several remained closed through the beginning of the following week. In Monroe County, two injuries resulted from the high winds. A man was briefly hospitalized after gusts blew apart the trailer he was working in at the Greater Rochester Airport. Also in Rochester, a woman was blown from the sidewalk into the street where she was hit by an oncoming car. Damage was estimated at \$750,000.00.
March 3, 2002	Thunderstorm Wind	N/A	N/A	Low pressure over Indiana deepened as it moved northeast. Trees and power lines were downed. Damage was estimated at \$100,000.00.
March 9, 2002	Thunderstorm Wind	N/A	N/A	Low pressure over Wisconsin deepened as it moved across Lake Superior and into northern Ontario. Strong winds accompanied and followed the passage of a cold front. The damaging winds affected the entire area, downing trees and power lines and causing some structural damage. Nearly 100,000 customers completely lost power with thousands of others experiencing brief power outages. In Rochester, a roof was blown-off a building supply store. In Mendon, a two-story, 100-year old barn was pushed over. Damage was estimated in Webster at \$50,000 and overall at \$500,000.00.
April 28, 2002	Thunderstorm Wind	N/A	N/A	Thunderstorms developed across the eastern Great Lakes Region during the afternoon hours. The thunderstorm's downburst winds ripped down trees and power lines. Scattered power outages were reported. Several structures and automobiles were damaged by falling trees. Wind damage was estimated at \$10,000.00 in Henrietta.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
May 29, 2002	Thunderstorm Wind	N/A	N/A	Thunderstorms developed in warm, moist, unstable air during the afternoon and evening hours downing trees and power lines. Up to 5,000 homes were without power at the peak of the storm. Damage was estimated at \$25,000.00 for the Rochester Airport.
May 31, 2002	Thunderstorm Wind	N/A	N/A	Thunderstorms moved across the region ahead of a cold front. The thunderstorms produced damaging winds and hail up to ¼ inch in diameter. The winds downed trees and power lines and scattered power outages were reported. A home suffered damage in Bushnell’s Basin. Damage was estimated at \$50,000.00 in Bushnell’s Basin.
June 26, 2002	Thunderstorm Wind	N/A	N/A	Thunderstorms developed in a warm, moist, unstable flow during the late morning and afternoon hours. Eight thousand customers lost power in the Rochester metro area. Damage was estimated at \$35,000.00 in Rochester, and \$30,000.00 in Irondequoit.
June 27, 2002	Thunderstorm Wind	N/A	N/A	Thunderstorms developed ahead of an approaching cold front. The thunderstorms produced damaging winds which gusted to near 70 mph. Damages consisted mainly of downed trees and power lines, although some structural damage occurred. Damage was estimated in Greece at \$20,000.00.
May 11, 2003	Strong Winds	N/A	N/A	Spencerport had straight-line winds (60-70 mph) with a localized microburst. A microburst is defined as a, “Highly localized downburst of air released from within a thunderstorm. Winds associated with microbursts can exceed 150 mph. That is equal to the force of an F-2 tornado” (Glenn Johnson, Meteorologist, Democrat & Chronicle, 5-14-03).
April 18, 2004	Hail	N/A	N/A	Spencerport: 0.88 inches; Fairport: 0.88 inches
May 14, 2004	Thunderstorm Wind	N/A	N/A	In Greece, trees fell down on a house, E50 KT; Rochester had trees down, E50KT
May 20, 2004	Lightning	N/A	N/A	An electrical storm followed by a heavy downpour rolled into the Rochester area shortly after 8:00 p.m.” Lightning struck the First Presbyterian Church in the Village of Pittsford. About 30 people were attending choir practice. Everyone was safely evacuated, but there was major damage to the structure (Democrat & Chronicle, 5.21.04, 5.22.04).
May 22, 2004	Thunderstorm Wind	N/A	N/A	Spencerport had numerous trees down, E50KT



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
May 23, 2004	Thunderstorm Wind	N/A	N/A	Henrietta’s Memorial Day Parade was canceled due to thunderstorms. “Frontier officials say recent storms have knocked out telephone service for an estimated 1,100 business and residential customers across the Rochester region. The company has no official estimate for when most customers will regain service (some maybe 3 days)” (Democrat & Chronicle, 5.24.04, 5.25.04). Thunderstorms on the 23rd and 24th, “...delivered as much as 2 to 4 inches of rain over most of western New York. On the 24th, the National Weather Service issued two severe thunderstorm warnings for Monroe County within six hours’ time. With the ground being saturated, any rainfall will create the potential for significant additional flooding” (Democrat & Chronicle, 5.25.04).
May 24, 2004	Thunderstorm Wind	N/A	N/A	In Webster, power lines were down, E55KT Durand-Eastman Park closed portions of the park due to standing water. Pine Brook Elementary School in Greece had the day off because a lightning strike cut power. Rochester firefighters pumped 72 basements. RG&E reported outages for 6,700 customers (Democrat & Chronicle, 5.25.04). The Rush Fire Department canceled their routine water rescue training because of unsafe conditions on Honeoye Creek. They were subsequently called to rescue four people who were rafting in the creek near the bridge on NYS Route 15A. One person was trapped in the creek. “Two of the rescuers and the person trapped were brought to shore by ropes” during the rescue (Democrat & Chronicle, 5.26.04).
July 20, 2004	Hail	N/A	N/A	Pittsford: 0.75 inches
August 29, 2004	Thunderstorm Wind	N/A	N/A	Henrietta Power Lines Down, E50KT; Brighton Large Tree Down, E50KT
June 13, 2005	Thunderstorm Wind	N/A	N/A	Mendon Trees Down, EG50KTS; Clarkson Trees/Limbs down, EG50KTS
July 14, 2005	Thunderstorm Wind	N/A	N/A	Rochester ASOS, MG56KTS; Rochester Tree limbs/chimney down, EG55KTS; Spencerport Wires and Trees down, EG50KTS Thunderstorms that ripped through parts of Monroe County, are to blame for power outages, localized flooding, at least one house fire and one minor incident of a person struck by lightning. The woman struck was shocked by lightning that traveled through the home’s telephone line. The National Weather Service, Buffalo Office said strong storms blew through western Monroe County between 7:30 and 8:30 p.m. They reported indications of rainfall greater than 3 inches an hour, which is the whole monthly average rainfall in about an hour. The rain caused numerous flooded basements and some flooded roadways. The power outages affected about 5,700 RG&E customers” (Democrat & Chronicle, 7.15.05).



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
July 26, 2005	Thunderstorm Wind	N/A	N/A	Honeyoe Falls Trees Down, EG50KTS Violent Thunderstorms...toppled trees and power lines in Honeoye Falls. Emergency Services and DPW crews cleared debris from roadways and attended occupants of a car who were trapped when a falling tree struck their vehicle. Local damage was reported on TV13 newscast the following morning” (The Sentinel, 8.4.05). “Peak gusts of 37 mph were recorded at the Airport. The winds downed tree limbs and power lines. A man was struck by lightning in his home when it traveled through electric wiring in his house” (Democrat & Chronicle, 7.27.05).
August 29-October 1, 2005	Hurricane Katrina Evacuation	EM-3262	Yes	Not listed.
September 29, 2005	Thunderstorm Wind	N/A	N/A	Brockport Trees/Wires down, EG50KTS The winds were strong enough to cause damage to trees, homes and scattered power outages to more than 5,600 RG&E customers. A wind gust of 45 mph was registered at the Rochester Airport. .The strong winds accompanied by thunderstorms were leading a cold front into New York” (Democrat & Chronicle, 9.30.05, 10.2.05, The Sentinel, 10.6.05).
November 6, 2005	Thunderstorm Wind	N/A	N/A	Hamlin Wires Down, EG50KTS Supercell thunderstorms raced across the area at 60 mph. Supercells are capable of producing tornadoes, large hail, and dangerous bursts of wind or flash flooding, as well as significant lightening. ...The separation between updraft and downdraft leads to longer storm life, helping the storm maintain itself for several hours. 4,000 RG&E customers lost power. Most of the problems were from tree limbs on power lines. The peak wind gust at the Airport was 47 mph” (Democrat & Chronicle, 11.8.05). “WHAM-TV13 was knocked off the air for about half an hour, until 6:35 p.m., by transmitter problems” (Democrat & Chronicle, 11.7.05).
November 9, 2005	Hail	N/A	N/A	Henrietta: 0.75 inches Heavy rains, lightening and hail tore through the Rochester area causing strange weather. Four people on the Wesleyan College Campus were treated for non-life-threatening injuries when lightning struck nearby. Multiple accidents, multiple alarm calls and some flooding the low areas were reported to the 911 Center. About 500 RG&E customers lost power (Democrat & Chronicle, 11.10.05).
February 17, 2006	High Wind	N/A	N/A	Greater Rochester International Airport (ROC) ASOS – MG67KT The area had an official wind gust of 77 mph; this is second on the all-time list” (Democrat & Chronicle, 2.12.09).



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
April 13, 2006	Hail	N/A	N/A	Greece: 1.00 inches
May 13, 2006	Hail	N/A	N/A	Rochester: 1.0 inches
June 28, 2006	Thunderstorm Wind	N/A	N/A	Webster Trees Down, Garage door blown in, EG53KT
June 28, 2006	Hail	N/A	N/A	Penfield: 1.5 inches; Henrietta: 1.50 inches
July 10, 2006	Thunderstorm Wind	N/A	N/A	Webster Trees down, on shed, EG52KT
July 29, 2006	Thunderstorm Wind	N/A	N/A	Lockport Trees down, EG50KT
August 2, 2006	Thunderstorm Wind	N/A	N/A	Hilton Power Lines down, EG50KT
October 29, 2006	High Winds	N/A	N/A	Winds ranged from 25 to 35 mph, with gusts above 40 mph coming off Lake Ontario. Drivers were warned to use caution on roadways and bridges. At its peak, more than 4,500 customers were without power. The NWS, Buffalo Office, issued a wind advisory until 6:00 p.m. There were no cancellations or delays at the Rochester Airport. The high winds caused tree branches to fall on homes and take down power lines” (Democrat & Chronicle, 10.30.06).
December 1, 2006	High Wind	N/A	N/A	ROC EG50KT The NWS, Buffalo Office, reported a wind gust of more than 40mph at the Airport. RG&E had about 3,600 customers without power. Several flights were cancelled at the Airport (Democrat & Chronicle, 12.2.06). The high winds produced a seiche on Lake Ontario. “Water is pushed from one end of the lake and piles-up on the opposite side. Seiches can cause changes in water level of several feet before diminishing over time” (Democrat & Chronicle, 12.3.06).



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
June 8, 2007	Thunderstorm Wind	N/A	N/A	Henrietta Trees/wires down, EG50KT Strong winds, frequent lightening and briefly heavy rain caused scattered power outages. Fallen tree limbs were reported throughout the area. A house was struck by lightning but no injuries were reported. About 8,000 RG&E customers lost power” (Democrat & Chronicle, 6.9.07).
June 19, 2007	Thunderstorm Wind	N/A	N/A	Rochester Trees down, 1 dead, 1 injured; Rochester Trees down, EG50KT; Brockport Trees/wires down, EG50KT A man on an ATV was killed near Riverside Cemetery when a treetop snapped and landed on him during a fast-moving heavy thunderstorm that brought wind gusts of more than 60 mph.” In the city, a 500-pound street vendor cart was lifted by the wind and slammed into a car. The fire service responded to calls for people trapped in their cars from falling trees, and DPW crews responded to remove trees that blocked streets. Multiple reports of trees on houses, into houses and obstructing building access were received at the 911 Center. More than 11,500 RG&E customers lost power, and some traffic signals were dark as a result (Democrat & Chronicle, 6.20.07, 6.21.07).
June 21, 2007	Hail	N/A	N/A	Penfield: 1 inch; Honeoye Falls: 0.75 inches
August 16, 2007	Thunderstorm Wind	N/A	N/A	Scottsville Wires down, EG50KT
September 11, 2007	Thunderstorm Wind	N/A	N/A	Mendon Trees/Wires down; tree on home, EG55KT
January 9, 2008	High Wind	N/A	N/A	Brighton Trees Down, EG74MPH
January 9, 2008	Thunderstorm Wind	N/A	N/A	ROC ASOS MG75MPH The winds gusted to hurricane force at 75 mph, downing trees and causing power outages. This is the fourth-highest recorded gust in Rochester history (Democrat & Chronicle, 2.4.08, 2.16.08).
January 30, 2008	High Wind	N/A	N/A	ROC ASOS MG60MPH The peak wind speed was 63 mph, again downing trees and causing power outages (Democrat & Chronicle, 1.31.08, 2.4.08).



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
April 26, 2008	Hail	N/A	N/A	Rochester: 1 inch
June 5, 2008	Thunderstorm Wind	N/A	N/A	Rochester Roof blown off building, EG50KT
June 10, 2008	Hail	N/A	N/A	Honeoye Falls: 0.75 inches
June 10, 2008	Thunderstorm Wind	N/A	N/A	Pittsford Trees and wires down, EG50KT
June 13, 2008	Thunderstorm Wind	N/A	N/A	Greece Wires down, EG50KT
June 16, 2008	Hail	N/A	N/A	Chili Center: 0.88 inches; 3S Penfield: 0.75 inches; Fairport: 0.75 inches; 2SE Fairport: 0.88 inches; Fairport: 0.75 inches; 3S Fairport; 0.75 inches; 2S Brockport: 0.75 inches
June 29, 2008	Thunderstorm Wind	N/A	N/A	Hamlin Trees down, EG50KT
July 16, 2008	Hail	N/A	N/A	Brockport: 0.75 inch
July 23, 2008	Hail	N/A	N/A	Henrietta: 1 inch
July 23, 2008	Thunderstorm Wind	N/A	N/A	1NW Honeoye Falls Trees down, EG50KT; Gates Trees down, EG50KT
February 12, 2009	High Wind	N/A	N/A	Brighton EG60MPH
June 2009	Thunderstorm Wind, Hail	N/A	N/A	The last week of June featured thunderstorms that produced localized flooding and damaging hail, which was reported up to 1.75 inches in diameter” (Democrat & Chronicle, 7.2.09).



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
June 26, 2009	Hail	N/A	N/A	Greece: 1 inch; N. Brockport 0.75 inches; 5SW Brockport: 1.5 inches; Brockport: 0.75 inches; Rochester: 1 inch
July 25, 2009	Tornado	N/A	N/A	Hilton F0 1755-1805
July 25, 2009	Thunderstorm Wind	N/A	N/A	Brockport Trees/wires down; Churchville Trees/wires down; West Webster Tree on house; Irondequoit – Power transformers down; Rochester – Trees down in city
July 26, 2009	Thunderstorm Wind	N/A	N/A	Rochester –Lyell Road Trees down
August 22, 2009	Hail	N/A	N/A	2W Spencerport: 0.75 inches
September 28, 2009	Thunderstorm Wind	N/A	N/A	Brockport Trees/wires down; Hilton Trees/wires Railroad/Underwood; 4NW Rochester Trees down West Ridge Rd
May 8, 2010	High Wind	N/A	N/A	Deep low pressure passed over western New York with its trailing cold front rapidly sweeping east across the region. Winds increased within a few hours of the approaching front to gust speeds of 60 to 65 mph. Tens of thousands were left without power. There were reports of vehicles and/or buildings damaged by falling trees in: Niagara Falls, Ransomville, Rochester, Olean, and Perry just to name a few. The high winds were blamed for several delayed flights at both Buffalo and Rochester airports. “14,000 customers lost power due to winds that took down trees and power lines.” Two-tenths of an inch of snow fell in Charlotte and a trace was measured at the Airport on Sunday morning (Mother’s Day). A freeze warning was in effect the morning of May 10th as the cold front that brought the high winds made its way across the region (Democrat & Chronicle, 5.8.10, 5.10.10).



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
July 21, 2010	Thunderstorm Wind	N/A	N/A	<p>Thunderstorms developed ahead of an approaching cold front. The thunderstorms produced large hail and damaging winds. Hail up to an inch and three-quarters was reported in Ontario, Wayne and Jefferson counties. The thunderstorm winds downed trees and power lines in the City of Rochester and Town of Brighton. Utility companies reported thousands without power.</p> <p>Just before 1:00 p.m., a Thunderstorm produced downpours, quarter-sized hail and damaging winds up to 60 MPH in Monroe County. About 3,000 RG&E customers, including Highland Hospital were without power for hours. Wind also knocked down trees, branches and power lines. Worst hit were Perinton, Pittsford, Chili, Henrietta, Rochester, and Irondequoit. NWS Buffalo reported a total of 1.88 inches of rain fell at the Airport by 5:00 p.m., breaking the record of 1.77 inches for the day set in 1919” (Democrat & Chronicle, 7.22.10). The National Weather Service, Buffalo Office issued a Severe Thunderstorm Warning and a Flood Warning in Monroe County related to this storm (NWS Bulletins, 7.21.10).</p>
August 19, 2010	Thunderstorm Wind	N/A	N/A	<p>Thunderstorms developed ahead of an approaching cold front during the late afternoon hours. In Monroe County, the thunderstorms produced strong winds that downed trees and power lines. At the Long Pond Shores apartment complex in Greece, a large tree fell on part of the building. Fallen limbs were scattered along Lakeshore Road in Irondequoit. Electric Utilities reported about 150 homes without power in Irondequoit and Webster.</p>
September 13, 2010	Hail	N/A	N/A	<p>A cold front crossed western New York during the early afternoon hours. Thunderstorms which accompanied the front produced hail up to one inch in diameter near Brighton and Greece.</p>
April 28, 2011	High Wind	DR-1993	No	<p>Following the passage of a strong cold front, strong synoptic winds developed across western New York. The strong winds downed trees and power lines. Specific measured wind gusts included 62 mph at Rochester Airport.</p>
May 29, 2011	Thunderstorm Wind	N/A	N/A	<p>A slow moving cold front crossed the region during the late evening and early overnight hours. The thunderstorms produced wind gusts measured to 65 mph. Numerous localities across the region report trees and power lines downed.</p>
August 13, 2011	Thunderstorms and Hail	N/A	N/A	<p>Thunderstorms that moved across the area produced winds gusting to 60 mph. The winds downed trees and power lines in Ontario and Marion (Wayne County) and in the Village of Fairport (Monroe County). Hail up to three quarter inch in diameter fell in Greece, Monroe County.</p>
August 28, 2011	Hurricane Irene	EM-3328 / DR-4020	Yes / No	<p>Hurricane Irene tracked northeast along the Atlantic Coast and brought gusty winds to the eastern sections of the area. Measured winds gusted to 40 to 45 mph. Normally winds of this magnitude are not strong enough to cause damage however the ground was wet and the north to northeast flow opposite of the prevailing direction for the region. Trees are anchored for the prevailing direction and are susceptible to even marginally strong winds from the opposite direction. Downed trees and lines were reported in the Town of Greece and the City of Rochester. Utilities reported several thousand customers without power.</p>



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
January 17, 2012	Thunderstorm Wind	N/A	N/A	Low pressure moved across southern Ontario and pulled a strong cold front across the region during the evening hours. Thunderstorms which accompanied the front produced wind gusts up to around 70 mph. The strong winds downed trees and power lines and poles. Power outages were scattered throughout the region with utilities reporting several thousand without power at its worse.
January 17, 2012	High Wind	N/A	N/A	Strong winds developed across the entire area in the wake of a strong cold front and associated with a deep low pressure center that moved across southern Ontario. Winds gusts to around 70 mph and remained quite strong all night. The strongest winds occurred along the Lake Erie shoreline to the Chautauqua Ridge and the Lake Ontario shoreline from Henderson Bay to the St. Lawrence River. Throughout the region, the strong winds downed trees and power lines. Several autos were reported damaged by falling trees. Several reports of downed signs and minor structure damage were also received. Some school districts in the area either cancelled classes or delayed start as a result of wind damage. Utilities reported tens of thousands without power at the peak of the storm. Specific gusts included: 72 mph at Rochester.
February 24, 2012	High Wind	N/A	N/A	Low pressure over the Ohio Valley deepened as it lifted northeast across the Great Lakes then down the St. Lawrence Valley. The low brought strong winds to the region. Trees and power lines were downed. Scattered power outages were reported. Measured gusts included: 53 mph at Rochester Airport.
March 3, 2012	High Wind	N/A	N/A	Deep low pressure moved from the Midwest across Lake Huron into Quebec. Southeast winds gusting to 55 mph quickly shifted to southwest and increased to 30 to 40 mph with gusts nearing 70 mph. The strong winds downed trees and power lines. A few autos were reported damaged by falling trees. Several reports of downed signs and structural damage to roofs and awnings were also received. Some school districts in the area either cancelled classes or delayed start as a result of wind damage. Utilities reported several tens of thousands without power at the peak of the storm. Specific gusts included 66 mph at Rochester Airport and 59 mph at Irondequoit.
May 29, 2012	Hail	N/A	N/A	A strong cold front crossed the region bringing an end to oppressive heat and humidity. The front however was accompanied by severe thunderstorms which produced hail up to one-and-three-quarter inches in diameter and damaging winds that downed trees and power lines. Utilities reported tens of thousands without power scattered throughout the region. Only minor structural damage was reported, mainly broken windows and ripped off shingles. Several automobiles were damaged by falling trees and limbs.
July 31, 2012	Thunderstorm Wind	N/A	N/A	While a slow moving cold front eased south across southern Ontario, a 30-mile wide band of showers and thunderstorms developed over Western New York. Initially the thunderstorms produced heavy rains. The thunderstorms continued to strengthen as they moved into the southern tier and eastern Lake Ontario Region. Reports of downed trees and wires were scattered throughout the region. Falling trees damaged homes in Savannah and Fairport. Hail, up to three-quarter inch in diameter, was reported with the storms.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
August 5, 2012	Thunderstorm Wind	N/A	N/A	Showers and thunderstorms developed in a warm, moist atmosphere ahead of an approaching cold front. Wind gusts were measured to 60 mph. The thunderstorm winds downed trees and power lines throughout the region. In many areas, downed trees blocked roads and highways.
September 7, 2012	Thunderstorm Wind	N/A	N/A	Thunderstorms developed in unseasonably warm and muggy conditions across the Genesee Valley, away from the stabilizing effects of the Great Lakes. The thunderstorm winds downed trees and power lines in the Towns of Brighton and Webster.
October 29, 2012	High Wind	EM-3351	Yes	<p>Remnants of Hurricane Sandy brought strong winds and heavy rains to western and north central New York. Rainfall amounts of two to five inches were measured across the area with some area creeks reaching the top of banks. The high winds downed trees and power lines throughout the region. Wind gusts were measured to 60 mph. Tree damage was greater than usual with such wind speeds because of saturated ground and northeast winds - opposite of the normal prevailing southwest direction. Utilities reported tens of thousands of customers without power across the entire region. Specific measured gusts included: 60 mph at Irondequoit Bay.</p> <p>In addition to the remnants of Superstorm Sandy (i.e., high winds and heavy rains) causing road closures and power outages across the County, the hurricane also activated the County's mutual aid agreement. Monroe County provided almost 45 firefighters to assist the cleanup and recovery efforts following Superstorm Sandy. Firefighters hailed from nearly a dozen fire departments, including Gates, Brighton, Spencerport, West Webster, and Fairport (Cleare 2012). Monroe County reported costs of \$127,375.03, and non-county costs of \$755,799.35.</p>
January 20, 2013	High Wind	N/A	N/A	A deepening storm system moved across the Upper Great lakes. The system brought strong, damaging winds to the entire region late Saturday night into Sunday (20th-21st). Trees, power poles and wires were brought down by the winds. Numerous roads were blocked by fallen trees, wires and debris. Some structural damage was also reported. Utilities reported tens of thousands without power for a time. Specific measured gusts included 59 mph at the Rochester Airport.
January 31, 2013	High Wind	N/A	N/A	Low pressure moved across the lower Great Lakes bringing a strong cold front across the region. In the wake of the front, strong westerly winds overspread the area. The wind downed trees and power lines. Utilities reported scattered outages across the region. Specific wind gusts recorded included 59 mph at the Rochester Airport.
May 15, 2013	Hail	N/A	N/A	An isolated thunderstorm moved on-shore from Lake Ontario and crossed Orleans and Monroe counties. The thunderstorm produced hail which reached 1 inch in diameter near Albion. At peak, the hail covered the ground.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
May 21, 2013	Hail	N/A	N/A	Thunderstorms developed along various boundaries within a warm and moist air mass over the region. Storms first developed across the Finger Lakes midday along the Lake Ontario lake breeze and then in the midafternoon along the Lake Erie lake breeze boundary as it pushed inland across the Southern Tier. The strongest storms produced 1- to 2-inch hailstones. Specific hail reports were received from Stanley, Geneva, Newark, Walworth, Marion, and Brockport. In several of those locations, automobiles were damaged by the hail stones.
June 1, 2013	Thunderstorm Wind	N/A	N/A	Two distinct lines of thunderstorms developed ahead of a weak boundary during the late afternoon and became more organized toward evening. One line developed across the Genesee Valley and the other across the eastern Lake Ontario Region. In some areas, scattered power outages were reported as the falling limbs and trees brought down power lines. In Rochester, lightning struck a house igniting a fire and damaging the chimney.
June 1, 2013	Lightning	N/A	N/A	Law enforcement reported that house was damaged by a lightning strike. This event is associated with the thunderstorm event on the same day.
June 17, 2013	Hail	N/A	N/A	A weak cold front crossing the region was accompanied by showers and thunderstorms. The thunderstorms produced hail up to 3/4 inch in diameter.
July 3, 2013	Thunderstorms and Hail	DR-4129	No	Thunderstorms developed over the northern Finger Lakes along a lake breeze in a warm humid air mass. The thunderstorms produce damaging winds which downed trees and power lines in Fairport and Pittsford. Between one-and-one-half and two-and-one half inches of rain was measured across parts of Monroe and Wayne Counties. This amount of rain in a very short time resulted in flooding in the City of Rochester. Several city streets were inundated, included Amsterdam Road and Monroe Avenue. Monroe County OEM had costs related to food (for EOC representatives - \$2,575.29) and water (for shelters - \$596.38) for a total of \$3,171.67.
July 18, 2013	Thunderstorm Wind	N/A	N/A	Scattered thunderstorms developed during the afternoon hours. An isolated thunderstorm over Monroe County produced damaging winds which downed trees and power lines in the Town of Greece.
July 19, 2013	Tornado	N/A	N/A	A thunderstorm moving across Lake Ontario spawned a waterspout just north of Hilton, New York. The waterspout, caught on amateur video, came onshore and moved across a small section of Braddock Point before moving back out over water in Braddock Bay. Onshore, the tornado downed several large trees. A home on Ontario Boulevard and several automobiles were damaged by the falling trees. The overall path length was approximated at less than a mile however the exact location of formation and dissipation over the water was unknown. Over land, the tornado path length was about a quarter of a mile, width was about ten yards, and it was ranked an EF0. Winds were estimated at 65 mph.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
August 2, 2013	Hail	N/A	N/A	Showers and thunderstorms accompanied the passage of a short wave trough across the area. The thunderstorms produced hail up to one-inch in diameter. Hail was reported in Kent, Greece, and Clarence.
November 1, 2013	High Wind	N/A	N/A	Deep low pressure lifted across the Great Lakes region. The system brought strong winds to much of the region on Friday, November 1st. Winds gusted as high as 62 mph. The strong winds downed trees and power lines throughout the region. Power outages were in the tens of thousands. In addition to minor structural damage to homes and building, a number of houses and automobiles were damaged by falling trees and limbs. Reports of damage were received from Rochester. Specific measured wind gusts included 56 mph at Rochester Airport.
November 18, 2013	High Wind	N/A	N/A	Rapidly deepening low pressure tracked from the Upper Great Lakes to James Bay and brought strong winds to the entire region. The winds, gusting as high as 68 mph, brought down trees and power lines throughout the region with numerous reports of damage from downed trees. Power outages were in the tens of thousands. Specific measure wind gusts included 63 mph at Rochester Airport.
January 6, 2014	High Wind	N/A	N/A	A sharp cold front crossed the region during the overnight/early morning hours. For a brief period in the wake of the front winds increased across the region. The winds gusted as high as 60 miles per hour. Downed trees and power lines were reported from Chili Center.
May 3, 2014	Hail	N/A	N/A	A thunderstorm crossing Monroe County produced 3/4 inch hail in Rochester and Irondequoit.
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. The thunderstorms also produced hail up to 1-1/4 inch.
August 1, 2014	Hail	N/A	N/A	Thunderstorms developed in a moderately unstable air mass along the lake breeze boundary that extended across the lower Genesee Valley and Western Finger Lakes. The thunderstorms produced damaging winds that downed trees and wires in Greece and Newark. Also, 1 -inch hail was reported in Rochester and 3/4- -inch hail covered the ground in Newark. The heavy rains that fell resulted in urban flooding. Storm sewers were not able to keep up in the intense rainfall with streets closed in Newark and Greece.
August 1, 2014	Thunderstorm Wind	N/A	N/A	This event is associated with the hail event on the same day. Associated damage listed above.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
January 4, 2015	High Wind	N/A	N/A	Deepening low pressure tracked from western Lake Erie across far southern Ontario to Quebec dragging a cold front across the region. Strong winds increased to near 60 mph about 2 to 3 hours after the cold front passage. The strong winds downed trees and wires across western New York. Scattered power outages resulted. Some specific damage locations included St. Paul Boulevard in the Town of Irondequoit.

Sources: NOAA-NCDC, 2015; FEMA, 2015; NWS 2011; Beaver County 2011

Note: 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 inflation.

- ASOS Automated Surface Observing System
- E East
- EG Estimated Gusts
- FAA Federal Aviation Administration
- KT/KTS Knot(s)
- mph miles per hour
- ROC Greater Rochester International Airport
- S South
- SE Southeast
- W West



H.1.5 Infestation and Invasive Species

Known infestation and invasive species events that occurred from 1950 to 2015 are identified in Table H.5. With infestation and invasive species documentation for New York State and Monroe County being so extensive, not all sources have been identified or researched. Therefore, Table H.5 may not include all events that have occurred in the County.



Table H.5. Infestation and Invasive Species Events in Monroe County, 1950 to 2015

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
1950s-1960s	Dutch Elm	N/A	No	Dutch Elm Disease destroyed a multi-state region of elms in the 1950s through the 1960s.
2010	Stink Bug	N/A	No	Populations of the brown marmorated stink bug caused catastrophic damage to most mid-Atlantic states in 2010, including New York State. Losses in Monroe County to the green pea and sweet corn crops totaled \$46,288 in 2010.
2010-2013	Emerald Ash Borers	N/A	No	<p>Emerald ash borers (EAB) were first found in North America in 2002 and have been blamed for killing tens of millions of ash trees in 15 states and two Canadian provinces. The tiny green beetles from Asia were first identified in New York in 2009.</p> <p>In 2013, EAB colonies had populated large swaths of ash trees in Monroe County within the municipalities of the Towns of Chili, Henrietta, and Rush, and the Village of Scottsville, and had entered adjoining sections of the Town of Brighton and City of Rochester. As of August 3, 2015, Monroe County remained under both state and federal quarantines due to EAB infestations. All Monroe County municipalities were included in the 2015 New York State EAB Quarantine Boundary Severe Risk Area as of April, 2015.</p> <p>Precise damage estimates from infestation are difficult to quantify, though municipal costs of clearing dead trees and downed power lines from dead limbs are expected to climb in infested areas. Further, severe loss of ash in riverine communities may lead to bank erosion, sedimentation, flooding caused by debris in waterways, and less groundwater absorption</p>
2012	Armyworm	N/A	No	A spring storm system brought adult armyworm moths to western New York (from the south). The early arrival of warm spring weather was blamed for the appearance of an unusually high number of army worms. Ordinarily, they arrive later in the season, when more of their natural predators are present. Monroe County was included in a USDA disaster declaration (S3411) for the armyworm outbreak.
2010 to 2015	West Nile Virus	N/A	No	<p>Between 2010 and 2015, Monroe County had a very low occurrence of WNV among birds, horses, humans, and pets.</p> <ul style="list-style-type: none"> • 2013 – 2 human cases, 1 equine • 2012 – 2 human cases • 2011 – 0 cases reported • 2010 - 0 cases reported

Source: USGS 2014; USDA 2015; NYSDOH 2015; CDC 2015
 CDC Centers for Disease Control
 EAB Emerald Ash Borer
 FEMA Federal Emergency Management Agency
 N/A Not applicable
 USDA U.S. Department of Agriculture





WNV West Nile Virus





H.1.6 Severe Winter Storm

Known severe winter storm events that occurred in Monroe County between 1990 and 2015 are identified in Table H.6. With severe winter storm documentation for New York State and Monroe County being so extensive, not all sources have been identified or researched. Therefore, Table H.6 may not include all events that have occurred in the County.



Table H.6. Winter Storm Events Between 1990 and 2015.

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
February 1, 2008	Winter Storm	N/A	No	Initially a snow storm, then a mix of snow, freezing rain and sleet, spread across parts of the region. Snowfalls in Monroe County ranged from 5 to 11 inches, followed by 1 to 2 inches of sleet or ice. Property damage from the storm was estimated at \$10,000 in Monroe County.
February 10, 2008	Winter Weather	N/A	No	An arctic front roared across the eastern lakes region on Sunday morning, February 10. Snow squalls accompanied the front, which was trailed by strong northwest winds. The strong winds blew about the freshly-fallen snow producing whiteout conditions and blowing snow on Interstate 390 in the Town of Gates. A 36-car accident occurred in which a 17-year old girl died, and nearly two dozen others taken to the hospital. Property damage from the storm was estimated at \$500,000 in Monroe County.
March 4, 2008	Winter Storm	N/A	No	Low pressure developed over the lower Mississippi valley and lifted to the Ohio valley. The storm brought a mix of snow, sleet, and freezing rain to the region. About 4 to 6 inches blanketed the entire region and was followed by several inches of sleet and up to ½ inch of glaze from freezing rain. Schools were closed in many parts of the region. Some county officials declared a States of Emergency, while others recommended no unnecessary travel. Utility companies reported scattered power outages affected tens of thousands of customers across the region. Property damage from the storm was estimated at \$10,000 in Monroe County.
March 7-9, 2008	Winter Storm	N/A	No	One of the worst storms of the 2007-2008 winter season occurred from March 7 through March 9. This was an extended two-part event, but totals of 1 to 2 feet of snow were common, with some isolated higher amounts. The storm occurred over a weekend so impact to daily activities (school and businesses) was minimal. Numerous automobile accidents were blamed on the slippery conditions and poor visibilities in falling and blowing snow. The storm dropped about 16 inches of snow on Rochester during a 36-hour period. RG&E reported 3,300 customers without power. Blowing and drifting snow caused whiteout conditions on roads and visibility at the Rochester Airport was 0.8 mile. Thunder and lightning accompanied bands of heavy snow the afternoon and evening of March 8. Snowfall reports in Monroe County included 22 inches in the Town of Hamlin; 14 inches in the Town of Webster; and 13 inches in the Town of Greece. Property damage from the storm was estimated at \$25,000 in Monroe County.
December 19, 2008	Winter Storm	N/A	No	Low pressure moved out of the central plains and moved across Pennsylvania. The low brought an 8- to 12-inch blanket of snow to the entire region on December 19. Across the western southern tier, snowfall amounts were slightly lower; the snow mixed with freezing rain and sleet across that area. Some of the highest snowfall amounts included 11 inches in the Town of Perinton, 9 inches at



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				<p>the Rochester Airport, and 10 inches in the City of Rochester. Innumerable automobile accidents were reported throughout the region as the roads became hard to navigate in the heavy snow and reduced visibilities. Schools shut down across the region and many municipalities suggested avoiding unnecessary travel if possible. Property damage from the storm was estimated at \$20,000 in Monroe County.</p>
December 31, 2008	Winter Storm	N/A	No	<p>A deepening area of low pressure moved across the Ohio valley and Pennsylvania before moving off the southern New England Coast during the afternoon of December 31. Steady snow developed over the region and was accompanied by increasing northerly winds. Widespread snowfall amounts ranged from 8 to 14 inches during the 8-hour event. The strong winds produced areas of blowing and drifting snow and resulted in significantly reduced visibilities. Some of the highest snowfall reports included 9 inches in the Town of Greece and 8.9 inches at the Rochester Airport. Property damage from the storm was estimated at \$10,000 in Monroe County.</p>
December 10-12, 2009	Lake Effect Snow	N/A	No	<p>Lake-effect snows developed off Lakes Erie and Ontario in a well-aligned, cold, unstable west to southwest flow. Strong winds allowed the snow bands to extend well inland, but produced significantly reduced visibilities in blowing and drifting snow. The Lake Erie snows produced significant accumulations well into the Rochester metro area. Off Lake Erie, the event began across northern Erie and southern Niagara counties, and then settled south into southern Erie and Wyoming counties by mid-morning Thursday (December 10) after dropping 2 to 4 inches. The storm then moved northward for several hours across the metro Buffalo area and across Genesee and Monroe counties, then settled slowly south and stalled out for many hours during the evening with very intense snowfall rates across the Buffalo south towns and Wyoming county. Areas immediately adjacent to the east shores of the lakes received up to 40 inches. An unusual wind shift above Lake Erie blew blizzard-like conditions into the Rochester area on December 10th, slowing the evening commute, and causing dozens of accidents. Specific snowfall amounts included 3 to 9 inches in the City of Rochester (from north to south). Property damage from the storm was estimated at \$15,000 in Monroe County.</p>
January 1, 2010	Lake Effect Snow	N/A	No	<p>A strong cold front crossed the region on New Year's Day. A broad area of lake-effect snows develop along the south shores of Lakes Erie and Ontario late on the first, and impacted up to 20 miles inland. The activity continued through Saturday (January 3) and then strengthened in place Saturday night as a large area of moisture spiraled around a massive coastal storm off New England. About 12 to 24 inches fell over two days, with up to 18 inches in the Rochester area. Nine to 18 inches fell in Rochester (from north to south across the city). Property damage from the storm was estimated at \$20,000 in Monroe County.</p>



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
January 3-9, 2010	Winter Storm	N/A	No	Rochester Airport recorded 116 straight hours of snow, with an accumulation of 12.3 inches.
February 25-26, 2010	Winter Storm	N/A	No	<p>A deep storm system off Long Island strengthened and stalled off the New York/New Jersey coast. The system circulated Atlantic moisture back across western and north central New York. About 6 to 10 inches of snow fell across the region with higher amounts to the east (closer to the low center) and downwind of the Great Lakes (where lake enhancement occurred). Rochester received 10 to 16 inches. Many schools throughout the region were closed because of the snow.</p> <p>Numerous automobile accidents were blamed on the treacherous driving conditions. RG&E restored power to 1,311 customers in an hour when heavy snow dropped tree branches on a power line in Webster. Reported storm totals included: 22 inches in the Towns of Webster and Hamlin. Property damage from the storm was estimated at \$20,000 in Monroe County.</p>
December 5, 2010	Lake-Effect Snow	N/A	No	<p>A strong northwest flow of arctic air produced long lasting lake-effect snow squalls to the southeast of Lakes Erie and Ontario. The event began on December 5 with strong bands off Lakes Huron and Ontario. The Ontario band worked across the Rochester area during the afternoon and then slowly settled south overnight, and combined with a Georgian Bay band to drop 4 to 8 inches around the City of Buffalo on Monday, December 6. This activity broke down later Monday but strong bands set up Monday night and continued through Wednesday night in an area from the City of Rochester to the City of Syracuse. Off Lake Ontario, reported snow totals included 24 inches in the City of Rochester. Property damage from the storm was estimated at \$10,000 in Monroe County.</p>
December 13-14, 2010	Lake-Effect Snow	N/A	No	<p>The fourth lake-effect event of the winter season followed on the heels of storm which brought a cold rain to most of the area. The event was long lasting and featured three sub-events. Most of the accumulation occurred during these three sub-event periods, the first of which was a north to northwest upslope flow from late December 13 through the morning of December 14, which brought 6 to 10 inches from Monroe to Wayne Counties and over 12 inches of snow in the Chautauqua ridge. The storm continued across the Niagara frontier during afternoon December 14 and then dropped 12 inches of snow over Oswego county Wednesday night to Thursday morning the 15th-16th. Lighter activity continued outside of these periods but accumulating snow fell at least until Friday. The 4-day totals topped more than 12 inches across the greater Rochester area. Reported totals included 18 inches in the City of Rochester. Property damage from the storm was estimated at \$25,000 in Monroe County.</p>
February 25, 2011	Winter Storm	N/A	No	<p>An intensifying area of low pressure moved across Pennsylvania then headed northeast across New England. The system brought a significant snowfall of 6 to 12 inches of snow to the entire area. A brisk northerly flow also resulted in a significant amount of blowing and drifting snow. Winds gusted to 40 mph along</p>



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				the Lake Erie Shore. A 30-mile stretch of the New York State Thruway was closed because of multiple accidents. There were several reports of building collapses throughout the region from the weight of the snow that had built up throughout the snowy winter. Property damage from the storm was estimated at \$15,000 in Monroe County.
February 12, 2012	Lake-Effect Snow	N/A	No	While this event proved to have minimal impact on the Rochester metropolitan area because it occurred over a weekend, it was the first significant lake-effect snowstorm of 12 inches or more for the major urban area in several years. A low pressure system situated over the southern half of Quebec brought cold, northwest winds to the region. Lake-effect snow developed off Georgian Bay into a band that gathered additional moisture off Lake Ontario as it curved more to the east across Monroe County. Moderate to heavy lake effect snow then fell across a large portion of Monroe County during the early morning hours of Sunday, February 12, with accumulations of 12 inches or more experienced by daybreak. Specific reported snowfall totals included: 12 inches in the City of Rochester and the Town of Greece. Property damage from the storm was estimated at \$15,000 in Monroe County.
December 26, 2012	Winter Storm	N/A	No	Low pressure over the deep south lifted across the Tennessee Valley to the Delmarva coast. The low pressure spread about 12 to 18 inches of snow across the entire region. Winds increased to 20 to 30 mph, gusting at times to near 40 mph. The winds produced blowing snow and reduced visibilities. Numerous automobile accidents occurred because of the wintry conditions. Some holiday travel was disrupted at Buffalo and Rochester airports. Specific snowfall reports received included: 14 inches in the Town of Greece; 12 inches in the Town of Chili; and 11 inches at Rochester Airport. Property damage from the storm was estimated at \$15,000 in Monroe County.
January 22, 2013	Lake-Effect Snow	N/A	No	Lake snows persisted as a deep trough of low pressure became entrenched across the northeast United States. Off Lake Ontario, an intense band of lake-effect snow developed east of the lake late Monday Night and drifted slowly south across Oswego County on Tuesday producing more heavy snow along the way. Snowfall rates reached 3 to 5 inches per hour during this time. The band then settled along the south shore of the lake Tuesday Night with heavy snow along the entire south shore. Periodic bands of somewhat weaker lake effect snow then continued along the south shore of the lake through midweek. Specific snowfall reports included 11 inches at Hamlin Beach in the Town of Hamlin. Property damage from the storm was estimated at \$10,000 in Monroe County.
November 26, 2013	Winter Storm	N/A	No	A strengthening area of low pressure moved north along the U.S. East Coast. The storm brought accumulating snow across western New York. Across parts of the North Country, the snow mixed with sleet and freezing rain. Although not exceptionally high snowfall totals, strong winds accompanying the system resulted in a considerable amount of blowing snow resulting in frequent white out



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				conditions. Several counties issued travel advisories because of hazardous road conditions. The fact that the storm occurred close to Thanksgiving added to the impact of the storm. Specific snowfall reports included 7 inches in the Town of Greece. Property damage from the storm was estimated at \$20,000 in Monroe County.
December 14, 2013	Winter Storm	N/A	No	Low pressure moved from the Ohio Valley to the East Coast and brought a general accumulating snow to much of the region. 6 to 10 inches of snow blanketed the region with the higher amounts across the higher elevations of the Eastern Lake Ontario region and areas south of Lake Ontario where lake enhancement occurred. The snow resulted in the usual traffic slowdowns and several accidents were blamed on the storm. Specific snowfall amounts that were reported included 7 inches in the City of Rochester.
December 21, 2013	Ice Storm	N/A	No	A surface front stalled across the region acted as a pathway for periods of heavy precipitation. To the north of the front, the precipitation fell as freezing rain. Ice coated trees, power lines and all exposed surfaces. Across the Niagara Frontier, ice accumulations of a half- to one-inch were reported. Across the north country, where the freezing rain persisted the longest, the ice accumulations ranged from one to two inches. The weight of the heavy ice brought down trees and power lines. Tens of thousands were left without power. In some cases, trees fell on homes, buildings and automobiles. At the RIT campus in the Town of Henrietta, cold temperatures and winds caused several pipes to burst in three apartment complexes. Total property damage on campus was \$67,000. Other property damage from the storm in Monroe County was estimated at \$50,000.
March 12, 2014	Blizzard	N/A	No	Low pressure moved across the Ohio Valley to the Mid-Atlantic coast then lifted northeast to the Canadian Maritimes. Snow began across the region during the pre-dawn hours of March 12. By morning, the combination of heavy snow and strong winds produced blizzard conditions across much of the region. Damage was mainly limited to economic loss of business and cost of cleanup as most businesses and schools announced closings early in the well forecast storm. The blizzard conditions led to cancellation of classes at the Rochester Institute of Technology (RIT) and closure of the university, and a power failure led to loss of service at a primary University data center, resulting in hardware and equipment damage. Sustained winds of 25 to 35 mph were accompanied by frequent gusts of 45 to 50 mph. Reported snowfall amounts included 19 inches at Hamlin Beach in the Town of Hamlin, 16.2 inches at Rochester Airport, and 14 inches in the Town of East Rochester. Property damage from the storm was estimated at \$42,000 in Monroe County, and Monroe County OEM had costs of \$628.93 related to food for EOC representatives.
March 29, 2014	Winter Storm	N/A	No	Low pressure moved across the Tennessee Valley to the Atlantic and then northeast along the coast. Precipitation began as rain across the region then changed to a brief period of freezing rain before changing to all snow. A blanket



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				of four to seven inches of snow covered the entire region. Snowfall accumulations were greater across the higher elevations and downwind of Lakes Erie and Ontario. Specific snowfall amounts included 10 inches in the City of Rochester and 9 inches at Rochester Airport. Property damage from the storm was estimated at \$20,000 in Monroe County.
December 10, 2014	Winter Storm / Nor'Easter	N/A	No	Low pressure developed off the mid-Atlantic coast then lifted to southern New England. The Nor'Easter brought a blanket of heavy snow to much of the region. The highest amounts were in Cayuga, Jefferson, Oswego, Wayne, Monroe, and Ontario Counties where a band of moderate to heavy snow fell on December 10 in the afternoon, and then another snow in the evening. The snow resulted in travel disruptions. Several school districts in the hardest hit areas were forced to close. Specific snowfall amounts received included 14 inches in the Town of Webster and 11 inches at Rochester Airport. Property damage from the storm was estimated at \$40,000 in Monroe County.
November 17-26, 2014	Severe Winter Storm, Snowstorm, and Flooding	DR-4204	No	Snowfall amounts of up to 4 feet impacted parts of Southern Erie County and Wyoming County on November 19th. The moderate to heavy snow extended east across Livingston and Ontario counties as well with accumulations approaching a foot over northern Livingston County. Millions of dollars were lost as area dairy farmers were unable to transport milk for processing. This event combined with the lake effect snow event following the next couple of days qualified the area for a Federal Disaster Declaration. Monroe County sent resources to Erie County to assist in the response to this storm. Assets were sent from County DOT, County Parks, County DES, County OEM, and County Fire Bureau. Costs incurred by Monroe County totaled \$28,304.81.
February 1, 2015	Winter Storm	N/A	No	Low pressure tracked across Ohio and Pennsylvania and brought a general 8 to 14 inches of snow to the entire region. Heaviest amounts were along the southern tier counties and over the counties along the south shore of Lake Ontario. Northeast winds became quite strong near Lake Ontario with near blizzard conditions occurring closer to the shore. While the snow did not result in many closings, the general snow across the entire region did result in many delays and late openings. Specific snowfall reports included 17 inches in the Town of Webster and 16 inches in the Town of Greece.
February 8, 2015	Winter Storm	N/A	No	Low pressure moved across Ohio and Pennsylvania to the Virginia Coast. The system brought a light general snowfall to the area. The northerly flow crossing the warmer waters of Lake Ontario and higher elevations resulted in enhanced snowfall amounts across parts of the Genesee Valley and northern Finger Lakes. Given the harsh winter conditions, the effects of this storm on the region were generally minimal with just some delays and longer travel times. Specific snowfall reports included 14 inches near Rochester.



Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
February 14, 2015	Winter Storm	N/A	No	A strong clipper crossed the Great Lakes and brought snow and blowing snow to the region and some of the coldest air of the season. The snowfall amounts were enhanced downwind of Lake Ontario and upslope east of Lake Erie where snowfall amounts around a foot were recorded. Gusty winds accompanied the system and produced reduced visibilities in blowing snow. On the back side of the system, temperatures plummeted and struggled to reach zero on February 15. Combined with the winds, wind chill temperatures of 25 to 35 degrees below zero were recorded.

Sources: NOAA-NCDC 2015; FEMA 2015

- FEMA Federal Emergency Management Agency
- NCDC National Climatic Data Center
- NOAA National Oceanic and Atmospheric Administration
- RG&E Rochester Gas and Electric
- RIT Rochester Institute of Technology



H.1.7 Wildfire

Known wildfire events that have impacted Monroe County from 1994 to 2015 are identified in Table H.7. Fire departments throughout the County respond to small brush fires each year. However, many of these fires are so small that little information is available. Therefore, Table H.7 may not include a complete record of all wildfire events that have occurred within the county.



Table H.7. Wildfire Events in Monroe County, 1994 to 2015

Date(s) of Event	Event Type	FEMA Declaration Number	Location / County Designated?	Losses / Impacts
October 16, 1994	Fire	N/A	No	3-Alarm Fire, City of Rochester for 6.75 hours. The event prompted activation of the Emergency Operations Center.
June 19, 2001	Landfill Fire	N/A	No	Mill Seat Landfill Fire in the Town of Riga for one hour. The event prompted activation of the Emergency Operations Center.
August 4, 2010	Wildfire	N/A	No	Fire detected in the Town of Webster
August 19, 2011	Wildfire	N/A	No	Fire detected in the Town of Webster
July 4, 2012	Wildfire	N/A	No	Fire detected in the Town of Webster
August 3, 2012	Wildfire	N/A	No	Fire detected in the Town of Webster
April 28, 2013	Brush Fire/Barn Fire (Orleans County)	N/A	No	The Kendall Fire Department was dispatched, along with the Carlton Fire Department, to a barn fire at 1857 Transit Road in the Town of Kent (Orleans County). The barn actually was situated in a triangular plot created by the Transit Road and the Roosevelt Highway. The header created by the large fire could be seen for miles from the incident. Kendall 1 arrived and immediately requested mutual assistance from several neighboring departments. Engines and tankers were requested from the Town of Hamlin. The fire consumed a large barn, spread to adjoining structures and vehicles, and created a brush fire that extended into a lightly wooded area north of the structures. It was reported that dynamite was stored in one standing building, and the Rochester Bomb Squad was called to the scene. Firefighters remained at the scene for several hours.
May 6, 2013	Brush Fire	N/A	No	Rochester firefighters responded for the report of a brush fire at Turning Point Park. Engine 19 went on location and reported a large area of brush burning. Additional equipment was dispatched to help extinguish the fire.
May 20, 2013	Wildfire	N/A	No	Fire detected in the Town of Hamlin
May 20, 2013	Wildfire	N/A	No	Fire detected in the Town of Hamlin
June 5, 2013	Brush Fire	N/A	No	Brighton firefighters responded for the report of a brush fire at the Town of Brighton dump on Browncroft Blvd. Engine 303 went on location with a 200 feet x200 feet pile of trees and brush on fire. Multiple mutual aid was called in to assist with fighting the fire. The cause of the fire is under investigation.
April 21, 2014	Wildfire	N/A	No	Between one and three fires were detected in the Town of Rush
August 9, 2014	Wildfire	N/A	No	Fire detected in the Town of Webster
May 26, 2015	Wildfire	N/A	No	Fire detected in the Town of Hamlin

Sources: NASA FIRMS, 2015; Monroe County Fire Wire, 2015

Note: Monetary figures within this table were U.S. Dollar (USD) figures calculated during or after 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 inflation.

FEMA Federal Emergency Management Agency N/A Not applicable





H.1.8 Hazardous Materials

Known hazardous materials events that have impacted Monroe County from 2010 to 2015 are identified in Table H.8. However, many of these fires are so small that little information is available. Therefore, Table H.8 may not include a complete record of all hazardous materials events that have occurred within the County.



Table H.8. Hazardous Materials Incidents in Monroe County, 2010 to 2015

Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
May 14, 2010	Oil Spill	N/A	No	Leakage of 100 gallons of waste motor oil occurred at the Pallet Express facility at 1069 Lyell Ave. in the City of Rochester. Emergency responders were dispatched to the scene. No other damages and/or losses were reported for the County.
May 26, 2010	Poisonous Material Leak	N/A	No	A leaky drum released poisonous material at the Bridge Terminal Transport Facility at 145 Colfax Street in the City of Rochester. An employee discovered free product leaking from an intermodal container. Cleanup crews discovered one leaking 600-pound metal drum. Approximately 20 pounds of free product was released. Marcor Environmental recovered the free liquid and overpacked the leaking drum. No other damages and/or losses were reported for the County.
August 26, 2010	Hydrogen Gas Spill/Explosion	N/A	No	An explosion occurred at Monroe County Fuel Farm on 1157 Scottsville Rd. in the City of Rochester when a transfer hose connecting a tube trailer to a customer supply system ruptured and released gaseous hydrogen that ignited explosively. The contents of the trailer, estimated at 90,000 GCF, were consumed in the ensuing fire that was allowed to burn off the hydrogen remaining in the trailer. Total costs of damages (material loss, carrier damage, and property damage), response, and remediation cleanup were estimated at \$311,000.
September 22, 2010	Diesel Fuel Spill	N/A	No	Spillage of 200 gallons of diesel fuel occurred at Route 390 and Route 590 in the Town of Brighton. No other damages and/or losses were reported for the County.
September 27, 2010	Chlorine Dioxide Spill	N/A	No	Spillage of 150 gallons of chlorine dioxide occurred at the University of Rochester Central Utilities Plant on 390 Elmwood Ave in the City of Rochester. No other damages and/or losses were reported for the County.
October 12, 2010	Diesel Fuel Spill	N/A	No	Spillage of 142 gallons of diesel fuel occurred at the CSX rail yard at 419 Atlantic Ave in the City of Rochester. No other damages and/or losses were reported for the County.
December 23, 2010	Diesel Fuel Spill	N/A	No	A commercial vehicle accident at 900 Jefferson Road in the Town of Henrietta caused a Superior Trucking vehicle to spill 125 gallons of diesel fuel onto the impervious surface and into sewers along the road. No other damages and/or losses were reported for the County.
July 8, 2011	Chemical Product Spill	N/A	No	Spillage of 1300 gallons of driveway sealer occurred near the intersection of Route 204 and Route 490 in the Town of Gates. No other damages and/or losses were reported for the County.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
May 20, 2011	Paint Spill	N/A	No	Release of 320 gallons of paint onto a trailer occurred at 15 Commercial Drive in the Town of Henrietta due to improper handling of the tote. An emergency response team was dispatched to handle cleanup at a cost of \$2,500. All product was absorbed with oil dry, placed into a salvage drum, and handled according to local, state, and federal regulations.
December 29, 2011	Nitric Acid Spill	N/A	No	SARA III – Between 500 and 1700 gallons of nitric acid was released at the Rochester Silverworks, 128 Ridgeview Ct., in the City of Rochester. The incident was the result of equipment failure, and the released materials affected soil and impervious surfaces. No other damages and/or losses were reported for the County.
January 4, 2012	Transform Oil Spill	N/A	No	Spillage of 25,000 gallons of transform oil occurred in the Town of Henrietta at the Rochester Gas and Electric substation on Lehigh St. No other damages and/or losses were reported for the County.
March 14, 2012	Diesel Fuel Spill	N/A	No	Spillage of 110 gallons by Cavalier Trucking occurred on 225 Buell Road in the Town of Gates. No other damages and/or losses were reported for the County.
December 6, 2012	Grease Spill	N/A	No	Spillage of 250 gallons of cooking grease occurred at Applebee's at Route 205 and Route 31 in the Town of Perinton. No other damages and/or losses were reported for the County.
March 7, 2013	Chlorine Leak	N/A	No	Henrietta firefighters responded to a report of a chlorine leak at RIT Building 17, the Micro Electronics Building, in the Town of Henrietta. The company assumed command and declared a Level 0 HAZ MAT. After an investigation of the chlorine leak, the assignment was upgraded to a Level 1 HAZ MAT, which brought the Monroe County HAZ MAT team to the scene. Firefighters secured the scene and turned the incident back over to RIT. No other damages and/or losses were reported for the County.
April 10, 2013	Ammonia Leak	N/A	No	Ridge Road firefighters responded this evening to a report of smoke from the front of the building on Lexington Ave in the Town of Greece. Command requested a Level 1 HAZ MAT for a 55-gallon drum of Chlorine Dioxide / Ammonia leaking. The Monroe County HAZ MAT team secured the leak, and the cause of the fire was investigated. No other damages and/or losses were reported for the County.
May 15, 2013	Dichlorosaline Leak	N/A	No	Town of Henrietta firefighters responded in the morning to a gas alarm at Building 17 on the RIT campus in the City of Rochester. 6C62 requested a Level 0 HAZ MAT response. Car 826 requested a Level 1 HAZ MAT response for an unknown hazard in the building. HAZ MAT team members made entry and secured the leak. No other damages and/or losses were reported for the County.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
May 21, 2013	Chemical Fumes	N/A	No	The Town of Henrietta Fire Department responded with a Level 1 HAZ MAT team to an apartment at 80 Colony Manor Drive on the RIT campus in the City of Rochester. The investigation was tied to a student who had become ill and was later treated at Strong Memorial Hospital. No other injuries related to the incident occurred, and the complex was not evacuated.
August 15, 2013	Chemical Fumes	N/A	No	City of Rochester firefighters responded to a report of a person with trouble breathing on University Ave. Engine 17 went on location and declared a Level 0 HAZ MAT for a city worker overcome by fumes. Command requested a Level 1 HAZ MAT for a city worker overcome by an unknown chemical. Firefighters secured the leak and turned over the scene. No other damages and/or losses were reported for the County.
October 18, 2013	Train Derailment	N/A	No	7 rail cars carrying soybeans derailed and overturned in the Town of Perinton. No injuries or property damages were reported, but the event reaffirmed hazard potential for a HazMat spill in the area.
December 5, 2013	Unknown Product Spill	N/A	No	During the loading process of a transport tank trailer at the Buckeye south loading rack in the City of Rochester, the driver hooked up to a 1,000-gallon compartment and programmed the equipment to load 2,000 gallons. The overflow system on the cargo tank failed to immediately stop the flow of product, resulting in 30-150 gallons of gasoline released onto impervious surface. The spilled product was contained within the loading rack containment area and cleaned up. No other damages and/or losses were reported for the County.
January 3, 2014	Hazardous Substance Spill	N/A	No	SARA IIIINO – 800 gallons of an unknown HazMat was reportedly spilled at the Eastman Kodak Plant at 480 Maplewood Drive in the City of Rochester, contaminating soils on site. The spill was the result of an equipment failure. No other damages and/or losses were reported for the County.
February 25, 2014	Hazardous Substance Spill	N/A	No	SARA IIIINO – 5000 gallons of a hazardous substance was reportedly spilled at the Eastman Kodak Company at 1669 Lake Avenue in the City of Rochester, contaminating soils and groundwater. No other damages and/or losses were reported for the County.
May 8, 2014	Diesel Fuel Spill	N/A	No	City of Rochester firefighters responded to a report of a diesel fuel spill at the scene of a motor vehicle accident on State Route 490 and the Freddie Sue Bridge. Command requested a Level 1 HAZ MAT to assist with the cleanup and to stop the leak. Somewhere between 40 and 85 gallons of diesel fuel was spilled onto the pavement and into the sewer. No other damages and/or losses were reported for the County.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
June 11, 2014	Unknown Product Spill	N/A	No	Roughly 20 gallons of material was released on the floor of a truck, and about 2 gallons was released on the side of the road in the City of Rochester. The damage to the tote occurred due to sudden braking from a near miss motor vehicle accident. A total of \$3,500 in damages was reported.
June 17, 2014	Chemical Spill	N/A	No	Employees at a transit storage facility at 335 McKee Road, City of Rochester were using a cargo tank vehicle to remove kerosene from a frack tank. Product from an earlier bulk tank spill that was mixed with water was being drawn into this tank wagon from a transmix tank when, during the recovery process, the Victaulic coupling underneath the tank wagon failed, and approximately 20 gallons of product spilled to the concrete/asphalt pad on which the truck was parked.
October 1, 2014	Fuel Spill and Fire	N/A	No	Rochester firefighters responded to a report of a fire in the yard of the Ben Weitsman Recycling company on Steel St. in the City of Rochester. Engine 3 went on location to find gasoline and other flammable liquids on fire next to a building. Battalion 2 assumed command and declared a working fire. Command requested Engine 10 to assist with water support and the HAZ MAT team. Command reported that 800-900 gallons of fuel was burning, and 250 gallons had spilled. No other damages and/or losses were reported for the County.
October 1, 2014	Chemical Spill	N/A	No	Kodak firefighters along with City of Rochester firefighters responded this afternoon to a reported leak from a 55-gallon drum of acetic anhydride. Command declared a Level 1 HAZ MAT. Firefighters contained the spill and secured the scene. No other damages and/or losses were reported for the County.
January 16, 2015	Fuel Spill	N/A	No	City of Rochester firefighters responded this afternoon to a reported fuel oil spill on Sylvester St. Engine 16 reported spillage of two 5-gallon buckets of oil inside the house and outside as well. Engine 16 declared a Level 0 HAZ MAT, which brought Engine 17, Rescue 11, and HAZ MAT 1 & 2. Battalion 1 assumed command and declared a Level 1 HAZ MAT. Thirty gallons of #2 fuel oil was spilled. No other damages and/or losses were reported for the County.
February 13, 2015	Chemical Spill	N/A	No	A 55-gallon poly drum of a water treatment chemical fell through the wood skid on which it had been staged during delivery at Winston Place in the Town of Henrietta. The broken skid resulted in a puncture in the bottom side of the drum and total release of the product to the floor of the trailer and the asphalt parking lot on which the trailer was parked. The cold weather froze the product in the trailer and the asphalt. The released material was shoveled up and collected by use of absorbents. The damaged drum was placed in an overpack. The recovered material was collected and taken for disposal. A total of \$3,500 in damages was reported.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
March 18, 2015	Fuel spill	N/A	No	Egypt firefighters responded to a reported motor vehicle accident in the Town of Pittsford on Palmyra Rd. Command requested a Level 1 HAZ MAT for 15 diesel fuel leaking along with another chemical. Firefighters secured the scene and turned it over to the police. Fifteen gallons of diesel fuel was spilled. No other damages and/or losses were reported for the County.

Source: Monroe County 2015; Monroe County Fire Wire 2015; NYS DEC 2015; PHMSA 2015; U.S. EPA 2015
HAZ MAT or HazMat Hazardous Materials
GCF Gas Cubic Feet



H.1.9 Landslide

Known landslide events that have impacted Monroe County from 1993 to 2015 are identified in Table H.9. As landslide events are not well documented, Table H.9 may not include a complete record of all landslide events that have occurred within the County.



Table H.9. Landslide Events between 1993 and 2015

Dates of Event	Event Type	FEMA Declaration Number	Location / County Designated?	Losses / Impacts
1993, 1997, 1998	Shoreline Erosion	N/A	No	High water levels on Lake Ontario exacerbated erosion along its shoreline. When the lake level reached 246.3 feet, erosion escalated. In these years, erosion swallowed land mass, trees and other vegetation, and artificial fill that property owners utilized as bank stabilization, some of which was placed through a U.S. Army Corps of Engineers “Advanced Measures Program” in the 1970s. Natural features have also been adversely affected by landslide. In Monroe County, cliffs along the shoreline in the Town of Webster, and along the Irondequoit Bay have been eroded. In 1998, severe erosion exposed a sanitary sewage transmission main near Sea Breeze, in the Town of Irondequoit, prompting emergency measures for repair and a call for immediate protective relief from the International Joint Commission that regulates lake levels.
April 2, 1997	House slid off Foundation/Water Main Break	N/A	No	A house on the west side of Irondequoit Bay, in the Town of Irondequoit, slid off its foundation into the bay. It is unknown whether a water service break at the house site caused the slide, or if the slide ruptured the water service. No one was home at the time of this event and no other properties were damaged (Greg Merrick, Irondequoit Fire Marshal, telephone interview, 8-12-03)
January, 1998	Saturated Soils	N/A	No	In the Town of Webster, a basement wall on the uphill side of the house collapsed from the pressure of saturated soils and downhill drainage.
August 31, 2004	Washout/ Landslide	N/A	No	Town of Irondequoit Supervisor, David Schantz called OEM to report a major wash-out on the slope above “German Village,” off Point Pleasant Road on the Westside of Irondequoit Bay. Five private homes were jeopardized. Town Officials, geo-technical Engineers, and utilities were involved. OEM briefed SEMO. “...Excessive rain saturated the hillside. That deluge caused brush and dirt to slide 40 feet toward about a dozen bayside houses known as German Village” (Democrat & Chronicle, 7.29.06).
July 28, 2006	Landslide	N/A	No	An Irondequoit resident awoke, “...To find her lawn and walkway covered with water and debris, runoff from a neighboring hillside. “Water was gushing like a small river, and the sump pump is running constantly” (Democrat & Chronicle, 7.29.06).
August 10, 2009	Erosion, Unstable Banks	N/A	No	“County Executive, Maggie Brooks, today announced the County was forced to cordon off a section of Ellison Park from public use as a result of dangerous conditions created by unstable banks along Irondequoit Creek. Significant stretches of Irondequoit Creek within both Powder Mills and Ellison Parks have been greatly impacted by storm water flow and other forms of erosion, seriously compromising the structural integrity of its banks” (Monroe County News Release, 8.10.09).

Sources: Monroe County, 2015
 FEMA Federal Emergency Management Agency
 N/A Not applicable





H.1.10 Civil Unrest

Known civil unrest events that have impacted Monroe County from 1993 to 2015 are identified in Table H.10. As landslide events are not well documented, Table H.10 may not include a complete record of all landslide events that have occurred within the County.



Table H.10. Civil Unrest Events between 1993 and 2015

Date(s) of Event	Event Type	FEMA Declaration Number (if applicable)	Monroe County Designated?	Description
July 24-27, 1964	Riots	N/A	No	<p>Riots raged for 3 days in the City of Rochester in the aftermath of an arrest of a young black male at a street block party and dance off Joseph Avenue, during the late evening hours of July 24, 1964. The riots started with roughly 400 people in two of the City’s predominantly black wards, near the intersection of Nassau Street and Joseph Avenue. Adjacent areas of the City, including downtown, were involved over the coming days, when rioting crowds swelled to more than 2,000 people. City police, state troopers, and sheriff’s deputies were all called to the scene.</p> <p>On July 25, City Manager Porter Homer ordered an 8:00 p.m. city-wide curfew, and closed all liquor stores in the City and surrounding municipalities. However, violence surged as rioters threw Molotov cocktails, rocks, and bottles from rooftops and store windows. Governor Nelson Rockefeller declared a state of emergency and called in the New York National Guard—the first use of those troops for that purpose in a northern city.</p> <p>The riots left 4 people dead (3 in a helicopter crash) and 350 injured. Almost a thousand people were arrested, the majority between 20 and 40 years old, employed, with no prior record. Fifteen percent of those arrested were white. Stores either looted or damaged numbered 204.</p>
March 25, 2010	Vandalism	N/A	No	<p>A brick was thrown at the office door of the Monroe County Democratic Committee in the City of Rochester by opponents of President Obama’s contentious healthcare reform measure that had been signed into law earlier in the week.</p>
October 31, 2011	Protest	N/A	No	<p>Two men with the “Occupy Rochester” protesters were arrested for violating city ordinances at a park in the City of Rochester where 32 demonstrators had been rounded up on trespassing charges three nights earlier. One man was accused of violating Rochester’s municipal code for tying a “Liberation Square Rochester” sign to a Civil War monument in Washington Square Park. Another was ticketed for sleeping in the park. However, Mayor Thomas Richards said that the arrests had been intended to prevent confrontations over health and safety concerns related to the multi-week occupation.</p>
August 11, 2013	Riots	N/A	No	<p>The City of Rochester Police Department arrested 16 people following the annual Puerto Rican Festival after festival participants allegedly threw rocks, bottles, and eggs at police officers. Pepper balls, a helicopter, and other crowd control measures, along with about 100 police officers in riot gear, were deployed to calm the situation.</p>
September 15, 2014	Protest	N/A	No	<p>Homeless advocates were arrested and charged with criminal trespassing after protesting outside a Monroe County office building in the City of Rochester. The dissenters protested cancellation of a scheduled meeting of County officials to discuss the City’s homeless problem and emergency housing shelter availability.</p>
September 21, 2014	Unruly Crowd	N/A	No	<p>At least a thousand people took to the streets in the Village of Brockport overnight between Saturday night and Sunday morning when the Brockport Police Department ordered the bars to close an hour early at 1 a.m. over safety concerns. Homecoming weekend at the College at</p>



Date(s) of Event	Event Type	FEMA Declaration Number (if applicable)	Monroe County Designated?	Description
				Brockport: State University of New York was the cause of such a large crowd gathering in the Village, and when ordered to exit the bars, people flooded the streets and started shouting "U-S-A!" and "Let's Go Brockport." More than 30 police officers from 13 different departments arrived at the scene, arresting 28 people, at least 3 of whom were students. Police Chief Daniel Varrenti told a news reporter that the event was not a riot.
November 30, 2014	Rally	N/A	No	Hundreds rallied in the downtown area of the City of Rochester to protest a grand jury's decision not to indict Ferguson, MO Police Officer Darren Wilson for the killing of Michael Brown, an unarmed black teenager. The rally did not include city officials. No property damage or violence was reported.
April 14-15, 2015	March	N/A	No	Marchers gathered on East Avenue and Mount Hope Avenue in the City of Rochester to fight for wage equality, including equal pay for women, higher wages for workers, and more options for workers to form unions. The marches were organized by a number of advocacy groups, workers, and churches.
May 1, 2015	March/Protest	N/A	No	Protesters marched in the City of Rochester in solidarity with people marching in Baltimore, after that City's top prosecutor announced charges Friday against six officers involved in the arrest of a black man whose neck was broken in police custody. The court's decision came amid outrage around the country over police brutality against African Americans. The Rochester protesters called for an end to the violence.

Sources: Democrat and Chronicle 2013; PBS 2015; Rochester Homepage 2015; Syracuse.com 2011; Syracuse.com 2014; The Guardian 2010; Time Warner Cable News 2015



H.1.11 Terrorism

Known terrorism events that have impacted Monroe County from 2000 to 2015 are identified in Table H.11. As terrorism documentation is not always well documented, Table H.11 may not include a complete record of all terrorism events that have occurred within the County.



Table H.11. Terrorism Events in Monroe County between 2000 and 2015

Dates of Event	Event Type	Location	FEMA Declaration Number	County Designated?	Losses / Impacts
May 31, 2014	Terrorist Activity	City of Rochester	Not applicable (N/A)	N/A	A City of Rochester man was arrested and later indicted on charges that he tried to provide material support to the Islamic State. The 30-year-old store owner was arrested and charged with funding the Islamic terror group ISIS, trying to fuel them with jihadists, and plotting to kill U.S. troops, according to federal authorities. He was also charged with one count of attempting to gun down government officers and employees, two counts of having an unregistered firearm silencer, and one count of possessing guns or silencers.

Sources: NY Daily News 2014



H.1.12 Utility Failure

Known utility failure events that have impacted Monroe County from 1959 to 2015 are identified in Table H.12. As utility failure documentation is not always well documented, Table H.12 may not include a complete record of all terrorism events that have occurred within the County.



Table H.12. Utility Failure Events in Monroe County, 1959 to 2015

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
1959 - 1965	Power Outage	N/A	N/A	Major blackouts occurred throughout the Northeast in 1959, 1961, and 1965. Anywhere from one to a few cables failed in isolated places, causing overloads in a few more cables, and then a larger cascade of failures. The cascade gained momentum, produced catastrophe through the medium of the grid, and finally produced a shutdown of the whole system.
November 9, 1965	Power Outage	N/A	N/A	<p>Monroe County was “in the dark” with most of the east coast after a faulty relay broke in an Ontario Hydro power plant in Queenston, Ontario, near Niagara Falls, triggering a cascade of power surges that shut down electrical systems throughout the Northeast. The Great Northeast Blackout, as it came to be known, caused outages for more than 4 hours in the City of Rochester, beginning just around the time of evening rush hour.</p> <p>Intersections became clogged as traffic signals went down, service stations could not pump gasoline, people were stuck in elevators, television stations were knocked off the air, and seven aircraft had to circle above what then was called Rochester-Monroe County Airport when landing strip lights blinked out. Civil defense officials mobilized, and off-duty police officers and firefighters were called to work in case of unrest. None occurred.</p> <p>RG&E costumers were affected, while customers of Niagara Mohawk Corp. in the Towns of Riga, Wheatland, Rush, and parts of Henrietta and Mendon still had power. RG&E’s power-generating system, which normally could produce enough power to cover its service area, was connected with other power companies in upstate New York that provided power through an eight-county area. When the relay broke in Ontario, power demands from the other utilities caused a power drain that overtaxed RG&E’s generators and shut them down.</p> <p>Once RG&E engineers disconnected their system from the other companies, their own generators resumed operation. By 7:15 p.m., restoration of power began to hospitals and other priority users, and full restoration had occurred by 9:45 p.m.</p>
August 14, 2003	Power Outage	EM-3186	Yes	<p>Known as one of the biggest blackouts in North America history, millions of people lost power shortly after 4:00 p.m. The blackout covered an area of 50 million people throughout the Northeast, affecting cities in New York, New Jersey, Ohio, Connecticut, Michigan, Massachusetts, as well as several major cities in Canada, including Toronto and Ottawa.</p> <p>In Monroe County, the Emergency Operations Center (EOC) was activated for 16.5 hours beginning on August 14th. County Executive Jack Doyle declared a State of Emergency for all of Monroe County on August 14th, and ordered no unnecessary travel. The declaration and order were rescinded on August 15th.</p>



Table H.12. Utility Failure Events in Monroe County, 1959 to 2015

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				<p>Approximately 67-80 percent of RG&E customers (about 400,000) in the County were without power. Niagara Mohawk customers within the County were also affected. Kodak Park shifted electric load back to company generation for mission-critical areas, but otherwise did not alter normal operations.</p> <p>Frontier, a distributor of telephone service in the region, reported that fewer than 1,000 telephone customers lost land-line service during Thursday’s power outage. The company operated some central offices and loop stations by use of batteries/back-up generators.</p> <p>City of Rochester Fire Chief Floyd Madison reported 12 minor fires on Thursday night and Friday morning, 6 of which were blackout-related. In addition, three fire stations lost power and were not able to acquire back-up power.</p> <p>Ginna Nuclear Generating Station in Wayne County shut down. Ginna is one of six in the State and nine nationally that were shut down. Dark traffic lights numbered 575. Hospitals operated by use of back-up generators. The generator at Park Ridge Hospital in the City of Rochester failed. County Pure Waters deployed a generator, and its electricians worked with RG&E crews to repair the hospital’s generator. Commercial power was restored in under 2 hours.</p> <p>The Rochester Airport lost outside power, and one of its two back-up generators failed, leaving passengers unable to board flights for nearly 3 hours. Monroe County Water Authority and the Pure Waters District (sewage) both had pump stations operating by use of generated power. Red Cross and County Health Department opened two venues for people with medical appliances who needed power access.</p> <p>On the morning of the 15th, RG&E and Niagara Mohawk both announced that “rolling blackouts” were ordered by the ISO to stabilize the restoration effort. Governor Pataki asked for federal emergency declaration to provide federal money for relief efforts.</p>
November 17, 2006	Gas Leak	N/A	N/A	<p>More than 300 Town of Greece families (700 residents) had to find temporary housing after a routine inspection of natural gas lines at the Cedar Commons apartment complex detected leaks so dangerous that the complex’s gas service had to be immediately disconnected for safety purposes. RG&E assisted Cedar Commons to locate materials and qualified workers needed to make the repairs as soon as possible. Jeff McCann, Greece Town Deputy Supervisor, said the town was made aware of the problem, and</p>



Table H.12. Utility Failure Events in Monroe County, 1959 to 2015

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				that complex managers told the town they would voluntarily relocate more than 316 families from the complex during repairs. All residents were able to return with availability of heat and hot water 5 days later after more than 9,000 feet of gas line had been replaced throughout the complex.
February 16, 2007	Power Outage	N/A	N/A	An equipment failure at a substation left about 2,500 RG&E customers without power for over an hour during the afternoon of February 16th. The power outage affected customers in Corn Hill and the western part of South Wedge in the City of Rochester.
January 28, 2007	Sanitary Sewer	N/A	N/A	Residents of aging suburbs like the Towns of Irondequoit, Brighton, East Rochester, and Greece faced flooding caused by insufficient storm sewer capacity. Irondequoit residents reported that heavy precipitation led to sewage in their basement and tens of thousands of dollars of damage to their properties. An Irondequoit DPW employee estimated that nearly 10,000 homes were impacted by decaying sewer infrastructure. Some infrastructure pipes were laid early in the 1900s.
September 7, 2007	Power Outage and Water Supply Failure	N/A	N/A	School was cancelled in Spencerport because of a failed electric transmission line that affected more than 38,000 RG&E customers in western Monroe County. Power was restored to most customers less than 2 hours after failure. OEM files indicate this was not an Electric Grid problem. This was a supply failure on a 115 kilovolt (KV) transmission line that was scheduled for comprehensive maintenance testing within a week of the failure. RG&E’s analysis of the problem and the system included inspection from the ground, the air, and thermal imaging. They also removed a section of the damaged line for testing and analysis. This failure resulted in some water pressure problems and water supply failure at the Wheatland-Chili School. With system redundancy through switching, all customers were restored.
June 2, 2008	Power Outage	N/A	N/A	Roughly 900 RG&E customers were without power for just over an hour, starting at 9:00 p.m. Power was restored by 10:23.
May 8, 2010	High Wind	N/A	N/A	Deep low pressure passed over western New York with its trailing cold front rapidly sweeping east across the region. Winds increased within a few hours of the approaching front to gust speeds of 60 to 65 mph. Tens of thousands were left without power. There were reports of vehicles and/or buildings damaged by falling trees. RG&E’s Monroe County and Canandaigua service areas were hardest hit.
July 17, 2010	Power Outage	N/A	N/A	About 1,000 households were temporarily without power in Monroe and Ontario Counties after a tree fell onto electrical wires at 2:45 p.m. Affected areas in Monroe County included the Town of Henrietta, the Village of Honeoye Falls, and the Town of Webster until restoration by 5:30 p.m.



Table H.12. Utility Failure Events in Monroe County, 1959 to 2015

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
July 21, 2010	Thunderstorm Wind	N/A	N/A	Thunderstorms developed ahead of an approaching cold front. The thunderstorms produced large hail and damaging winds. Thunderstorm winds downed trees and power lines in the City of Rochester and Town of Brighton. Utility companies reported thousands without power.
August 19, 2010	Thunderstorm Wind	N/A	N/A	Thunderstorms developed ahead of an approaching cold front during the late afternoon hours. In Monroe County, the thunderstorms produced strong winds that downed trees and power lines. At the Long Pond Shores apartment complex in the Town of Greece, a large tree fell on part of the building. Fallen limbs were scattered along Lakeshore Road in the Town of Irondequoit. Electric Utilities reported about 150 homes without power in the Towns of Irondequoit and Webster.
August 28, 2011	Hurricane Irene	EM-3328	Yes	Hurricane Irene tracked northeast along the Atlantic Coast and brought gusty winds to eastern sections of the area. Measured winds gusted to 40 to 45 mph. Normally, winds of this magnitude are not strong enough to cause damage; however, the ground was wet and the north to northeast flow of wind was opposite of the prevailing direction for the region. Trees are anchored for the prevailing direction and are susceptible to even marginally strong winds from the opposite direction. Downed trees and lines were reported in the Town of Greece and the City of Rochester. Utilities reported several thousand customers without power.
January 17, 2012	Thunderstorm Wind/High Wind	N/A	N/A	Low pressure moved across southern Ontario and pulled a strong cold front across the region during the evening hours. Thunderstorms accompanying the front produced wind gusts to around 70 mph. The strong winds downed trees and power lines and poles. Power outages were scattered throughout the region, with utilities reporting several thousand without power at its worse. Utilities reported several tens of thousands without power at the peak of the storm. Specific gusts included one of 72 mph at Rochester.
February 24, 2012	High Wind	N/A	N/A	Low pressure over the Ohio Valley deepened as it lifted northeast across the Great Lakes then down the St. Lawrence Valley. The low brought strong winds to the region. Trees and power lines were downed. Scattered power outages were reported. Measured gusts included one of 53 mph at Rochester Airport.
March 3, 2012	High Wind	N/A	N/A	Deep low pressure moved from the Midwest across Lake Huron into Quebec. Southeast winds gusting to 55 mph quickly shifted to the southwest, and increased to 30 to 40 mph with gusts nearing 70 mph. The strong winds downed trees and power lines. Utilities reported several tens of thousands without power at the peak of the storm. Specific gusts included one of 66 mph at Rochester Airport and 59 mph in the Town of Irondequoit.
May 29, 2012	Hail	N/A	N/A	A strong cold front was accompanied by severe thunderstorms that produced hail up to 1.75 inches in diameter, and damaging winds which downed trees and power lines. Utilities reported tens of thousands without power scattered throughout the region.



Table H.12. Utility Failure Events in Monroe County, 1959 to 2015

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
October 29, 2012	High Wind	N/A	N/A	Remnants of Superstorm Sandy brought strong winds and heavy rains to western and north central New York. The high winds downed trees and power lines throughout the region. Wind gusts were measured to 60 mph, for example, at Irondequoit Bay. Tree damage was greater than usual with such wind speeds because of saturated ground and northeast winds—opposite of the normal prevailing southwest direction. Utilities reported tens of thousands of customers without power across the entire region. On the 30 th , RG&E reported that 22,300 Monroe County customers were without power, though by the end of the day only 13,800 customers remained in the dark. Power was restored to all RG&E customers by November 2 nd .
January 20, 2013	High Wind	N/A	N/A	A deepening storm system moved across the Upper Great lakes. The system brought strong, damaging winds to the entire region late Saturday night into Sunday (20 th -21 st). Trees, power poles, and wires were brought down by the winds. Utilities reported tens of thousands without power for a time. Specific measured gusts included one of 59 mph at the Rochester Airport.
January 31, 2013	High Wind	N/A	N/A	Low pressure moved across the lower Great Lakes, swinging a strong cold front across the region. In the wake of the front, strong westerly winds overspread the area. The wind downed trees and power lines. Utility companies reported scattered outages across the region. Specific wind gusts recorded included one of 59 mph at the Rochester Airport.
February 2013 – January 2014	Power Outages	N/A	N/A	Parts of the Town of Webster were affected by repeated power outages over a series of months, including five mini-blackouts that affected the same 4,250 customers. A 1.5-mile stretch of a 49-year-old, sub-transmission line in the west part of the Town of Webster known as Circuit 745 went out of service twice in November because of contact by tree limbs, and then failed on Dec. 28, Jan. 6, and on Jan. 11, each time breaking at a point where it previously had been spliced together. Parts of the town not served by Circuit 745 also underwent repeated losses of electric service, and the town logged more customer-hours with no electricity over a one-year period than any other municipality in Monroe County.
July 18, 2013	Thunderstorm Wind	N/A	N/A	Scattered thunderstorms developed during the afternoon hours. An isolated thunderstorm over Monroe County produced damaging winds that downed trees and power lines in the Town of Greece. The Towns of Greece, Irondequoit, and Webster, and the northern portion of the City of Rochester took the brunt of the damage in Monroe County, where 2,900 RG&E customers were without power for up to 3 days.
November 1, 2013	High Wind	N/A	N/A	Deep low pressure lifted across the Great Lakes region. The system brought strong winds to much of the region on Friday, November 1 st . Winds gusted as high as 62 mph. Approximately 13,600 RG&E customers lost power after the high winds knocked down trees and branches, took down transmission and distribution lines, and snapped utility poles in the area. In total, more than 27,000 RG&E customers in Monroe, Wayne, and



Table H.12. Utility Failure Events in Monroe County, 1959 to 2015

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				Ontario counties lost power as result of the storm, with the towns along Lake Ontario bearing the worst of the damage. The most significant outages were in the Towns of Greece (3589), Ogden (2952), Webster (1481), Irondequoit (1298), Chili (1204), Gates (638), Penfield (411), and Parma (349); and in the City of Rochester (1175). Power was restored by the evening of November 2.
November 18, 2013	High Wind	N/A	N/A	Rapidly deepening low pressure tracked from the Upper Great Lakes to James Bay, and brought strong winds to the entire region. The winds, gusting as high as 68 mph, brought down trees and power lines throughout the region, reflected in numerous reports of damage from downed trees. Power outages were in the tens of thousands. Specific measured wind gusts included one at 63 mph at Rochester Airport.
November 26-28, 2013	Winter Storm	N/A	N/A	Power lines and electric utility equipment were damaged by an overnight storm that dumped between 6 and 10 inches of heavy, wet snow. RG&E estimated that more than 17,500 customers total and 1,331 in Monroe County lost power at some point during the storm that toppled trees, knocked down 216 power lines, and fractured 12 utility poles across its service area. The largest outages occurred in the Towns of Brighton (478), Pittsford (303), and Henrietta (146), and the City of Rochester (108). Power was restored to RG&E customers less than 2 days later.
December 20, 2013	Phone Outages	N/A	N/A	At approximately 9:25 a.m., the Monroe County 911 Center called Frontier, a telephone service company, to report a problem with 911 telephone service. Frontier started trouble shooting and called its 911 manager. While Frontier was trouble shooting, the 911 Center contacted local media to inform them of the situation. Frontier’s 911 manager instructed the 911 Center to activate the emergency backup switch, which routed all 911 traffic to the back-up Norstar system, displaying Caller-ID only. Frontier discovered a scan point circuit failure due to a defective trunking cable between Fitzhugh St. and Field St. in the City of Rochester, and made repairs.
December 21, 2013	Ice Storm	N/A	N/A	A surface front stalled across the region and acted as a pathway for periods of heavy precipitation. North of the front, the precipitation fell as freezing rain, coating trees, power lines, and all exposed surfaces with ice. Across the Niagara Frontier, ice accumulations of 0.5 to 1 inch were reported. Across the north country, where the freezing rain persisted the longest, ice accumulations ranged from 1 to 2 inches. Weight of the heavy ice brought down trees and power lines. In some cases, trees fell on homes, buildings, and automobiles. Tens of thousands were left without power.
July 8, 2014	Thunderstorms	N/A	N/A	A line of intense thunderstorms blew through the Rochester region the afternoon of July 7. High winds, torrential rains, and plentiful lightning damaged many parts of RG&E’s electric distribution system, and caused outages for more than 31,000 customers across all areas of its system. At the peak of the storm, more than 27,000 RG&E customers were out of service, 290 of them within Monroe County. Areas with the most outages in



Table H.12. Utility Failure Events in Monroe County, 1959 to 2015

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				Monroe County included the Towns of Pittsford (156), Perinton (43), and Webster (Town and Village) (75). Power was restored by the end of the next day.
August 1, 2014	Flood	N/A	N/A	Thunderstorms developed in a moderately unstable airmass along the lake breeze boundary that extended across the lower Genesee Valley and Western Finger Lakes. The thunderstorms produced damaging winds that downed trees and wires in the Town of Greece. The heavy rains that fell resulted in urban flooding. Storm sewers were not able to keep up with the intense rainfall, and streets closed in the Town of Greece.
January 4, 2015	High Wind	N/A	N/A	Deepening low pressure tracked from western Lake Erie across far southern Ontario to Quebec dragging a cold front across the region. Strong winds increased to near 60 miles per hour (mph) about 2 to 3 hours after the cold front passage. The strong winds downed trees and wires across western New York. Damage was reported along St. Paul Boulevard in the Town of Irondequoit. Scattered power outages resulted throughout the region.

Source: NOAA-NCDC, 2015; Monroe County 2010 HMP; Democrat and Chronical, 2006, 2007, 2008, 2010, 2014; RG&E 2015.

DPW Department of Public Works

ISO International Organization for Standardization

KV Kilovolt

mph Miles per Hour

NCDC National Climatic Data Center

NOAA National Oceanic and Atmospheric Administration

RG&E Rochester Gas and Electric



APPENDIX I. NYS DHSES PLANNING STANDARDS

This appendix includes the 2017 NYS DHSES planning standards and guidelines for hazard mitigation planning.

DRAFT



New York State Hazard Mitigation Planning Standards

Congratulations on taking the first steps to create or update a multi-hazard mitigation plan for your community! Based on New York State's disaster history, the New York State Division of Homeland Security and Emergency Services (NYS DHSES) has developed the following mitigation planning standards. While we recommend incorporation of these standards into all mitigation plans, these are required actions for any mitigation plan developed with funds administered by NYS DHSES.

The goal of both NYS DHSES and FEMA is that all jurisdictions develop robust mitigation plans and tangible mitigation actions that will contribute to long-term risk reduction. These requirements 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:

The **NYS Hazard Mitigation Planning Standards Guide** provides supplemental guidance and information to support efforts to meet the NYS Planning Standards. This will be made available online, and is included as an attachment.

The **2013 Local Mitigation Planning Handbook** is the official guide for local governments to develop, update and implement local mitigation plans:

<https://www.fema.gov/media-library/assets/documents/31598?id=7209>

The **2011 Local Mitigation Plan Review Guide** provides an overview of the tool that FEMA and NYS DHSES will use to revise plans:

<https://www.fema.gov/media-library/assets/documents/23194>

Beyond the Basics: Best Practices in Local Mitigation Planning is a website developed by the University of North Carolina which expands on FEMA's Handbook and features numerous examples and best practices from resources across the country:

<http://mitigationguide.org/>

We urge you to utilize the information available and 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 tribal entities.

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 (also known as the 100-year flood event).

1. Establish Jurisdictional Teams

Plans developed with the participation of the widest range of organizations and stakeholders personally familiar with past damages to local infrastructure are likely to contain valuable, relevant information that will lead to a comprehensive plan and feasible projects.

Jurisdictions must invite key stakeholders at the start of and throughout the planning process.

- The plan must document how stakeholders were invited to participate at each phase of the planning process, and provide a summary of feedback.

2. 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 vulnerabilities and ensure protection to a 500-year flood event. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood event, or worst case scenario.

- The plan must document the name of facility, type of facility, jurisdictional location, and exposure to a 100- and 500-year event.
- The plan must document that critical facilities are protected to the 500-year flood event, or worst damage scenario. For those that do not meet this level of protection, the plan must include an action to meet this criteria, or explain why it is not feasible to do so. (See State Standard 7 for additional requirements related to project identification.)

3. Plan for Displaced Residents

Intermediate and long-term housing options must be available to relocate displaced residents to maintain post-disaster social and economic stability.

Jurisdictions containing an SFHA must identify potential sites that are compliant with the NYS Uniform Fire Prevention and Building Code (with first flood elevation placed no less than 2' above the Base Flood Elevation) for the placement of temporary housing units for residents displaced by disaster; and potential sites within the jurisdiction suitable for relocating houses out of the floodplain, or building new houses once properties in the floodplain are razed.

- The plan must document the location of viable sites, and include a letter from the local floodplain administrator certifying viability or listing any actions required to ensure conformance.

4. Plan for Evacuation and Sheltering Needs

Evacuation and sheltering measures must be in place and available for public awareness to protect residents and mitigate risk, stress and personal hardships during hazard events.

Jurisdictions must identify routes and procedures to evacuate citizens prior to and during an event, and identify shelters for evacuated citizens. Provisions must be included for a range of medical needs, accommodation for pets, and compliance with the Americans with Disabilities Act (www.ada.gov).

- The plan must document (or refer back to such components in existing valid plan):
 - ♦ Evacuation routes and procedures;
 - ♦ Location of shelters (outside of the SFHA);
 - ♦ Specific information about how these plans are accessible and available to the public, or include the related narrative from those plans in an appendix.

5. Document Past Mitigation Accomplishments

Past mitigation actions provide a context for the jurisdictions' projects, and can help to evaluate accuracy of assumptions to support future mitigation planning.

Jurisdictions must identify mitigation projects completed since the approval of the previous mitigation plan (or within the last five years), regardless of whether the project was included in the previous plan or the project's funding source.

- The plan must document the original problem and estimated annual damages, the solution (project), the cost, the level of protection and its success since implementation.

6. 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 their level of participation.
- Each participating jurisdictional annex must include the following (at a minimum) and non-participating jurisdictions must include a cover sheet and should include as much information as is available:
 - ♦ 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 State Standard 2);
 - ♦ Jurisdiction/public identified vulnerabilities;
 - ♦ Additional public involvement;
 - ♦ Capabilities Assessment;
 - ♦ Mitigation Strategy:
 - All identified previous mitigation activities with current status;
 - Previous mitigation activities completed (to meet State Standard 5);
 - All proposed mitigation activities (both new and carried forward, to meet State Standard 7);
 - Action Worksheets for a minimum of two (2) proposed mitigation activities (to meet State Standard 7).

7. 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 projects to include all information requested in the NYS DHSES Proposed Project Tables and provide a minimum of two (2) worksheets for the jurisdiction's highest priority projects.

- The plan must document all mitigation projects that have reasonable potential to be accomplished within the lifespan of the plan (five years) to include all information requested in the NYS DHSES Proposed Project Tables.
- The plan must include at least two (2) NYS DHSES Action Worksheet for the jurisdiction's highest priority projects. For jurisdictions containing an SFHA, one (1) of these Action Worksheets must be for a project that addresses flooding.

8. Identify Funding Sources

Identifying strategic funding sources is integral to successful coordination and implementation of mitigation actions.

- The plan must include a list of potential local, State and Federal funding sources.

9. Plan for Climate Change

Acknowledging and planning for climate change protects residents, avoids or reduces damage to property and public infrastructure, and reduces personal hardship.

The county and its municipalities must assess how climate change may affect vulnerability to the increased/decreased frequency of occurrence and/or severity of hazards due to climate change.

- The plan must document the assessment how climate change may affect the following hazards (at a minimum): flooding, wildfire, drought and extreme temperatures.
- The plan must document strategies and/or projects to address the above hazards as they specifically relate to climate change.
- For coastal jurisdictions, the plan must discuss sea level rise and its potential impacts.

10. 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 (with the exception of 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. 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) by FEMA, the final plan must be placed on the same website (cited above) in its entirety (with the exception of discretionary sensitive information).
- Final payment will occur only after 50% of the participating jurisdictions have adopted the FEMA-approved 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 or not 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	Met
ELEMENT F. ADDITIONAL STATE REQUIREMENTS – NYS DHSES HAZARD MITIGATION PLANNING STANDARDS.			
These are required actions for plans developed with NYS DHSES-administered funds.			
F1. Does the plan document how stakeholders were invited to participate at each phase of the planning process and provide a summary of feedback?			
F2. Do jurisdictions identify critical facilities, assess vulnerabilities and ensure protection to a 500-year flood event or worst case scenario?			
F3. Do jurisdictions containing an SFHA identify: <ul style="list-style-type: none"> a. potential sites for the placement of temporary housing units for residents displaced by disaster; and b. potential sites within the jurisdiction suitable for relocating houses out of the floodplain, or building new houses once properties in the floodplain are razed? 			
F4. Do jurisdictions identify: <ul style="list-style-type: none"> a. routes and procedures to evacuate citizens prior to and during an event; and b. shelters for evacuated citizens, to include provisions for a range of medical needs, accommodation for pets, and compliance with the Americans with Disabilities Act (www.ada.gov)? 			
F5. Do jurisdictions identify mitigation projects completed since the approval of the previous mitigation plan (or within the last five years)?			
F6. Does the plan include an annex for every jurisdiction within the County's boundaries?			
F7. Within each jurisdictional annex, are: <ul style="list-style-type: none"> a. projects developed in accordance with the NYS DHSES Proposed Projects Table; and b. two (2) NYS DHSES Action Worksheets provided? 			
F8. Does the plan include a list of potential funding sources?			
F9. Does the plan assess how climate change may affect vulnerability to hazards, propose actions to address this, and discuss sea level rise (if applicable)?			
F10. Was the draft plan posted for public comment?			
<p>Note: The applicant is required to address the 2016 NYS DHSES Hazard Mitigation Planning Standards as required actions for a hazard mitigation plan developed with funds administered by NYS DHSES.</p> <p><u>ELEMENT F: REQUIRED REVISIONS</u></p> <p><i>Please see opportunities for improvement</i></p>			

New York State

Hazard Mitigation Planning Standards Guide

Prepared as supplemental guidance to support the development of Multi-jursidictional Hazard Mitigation Plans to meet the New York State Planning Standards.

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 tribal entities.

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 (also known as the 100-year flood event).

1. Establish Jurisdictional Teams

Plans developed with the participation of the widest range of organizations and stakeholders personally familiar with past damages to local infrastructure are likely to contain valuable, relevant information that will lead to a comprehensive plan and feasible projects.

During initial stages of development, jurisdictions should identify organizations and key stakeholders in order to develop individual jurisdictional teams. Once jurisdictional teams are established, all members should be invited at every stage of the process.

Jurisdictions must invite key stakeholders when initiating the planning process and identifying mitigation strategies. At a minimum (if applicable), this should include:

- County Hazard Mitigation Coordinator
- County Floodplain Administrator (or person acting as such)
- County Emergency Managers
- County Planners
- County GIS staff
- County Soil & Water Conservation Districts
- Elected and executive officials
- Regional & Metropolitan (Transportation) Planning Organizations
- Statewide/Local Watershed Commissions
- Educational Representation (Schools/Universities)
- Economic Development/Chamber of Commerce
- Local Hazard Mitigation Coordinators and Floodplain Managers
- Local Code Enforcement Officials
- First Responder Organizations
- Local Emergency Planning Committees (LEPC)
- Local Emergency Management
- Local Planners and planning consultants
- Local Engineers and engineering consultants
- Local Public Works or Highway Superintendents
- Health Care
- Neighboring Counties
- Utilities (gas, electric, water)

The plan must present information to show that such persons were included in the process. Examples:

- Copies of electronic or hard copy meeting invitations.
- A list of persons invited, their position, the jurisdiction represented and if they participated.
- Meeting sign-in sheets, minutes or other documentation showing specific activity in which the identified persons participated, and how their input was included in the plan.

Plans developed with the participation of a wide range of organizations and stakeholders are the most likely to contain viable, innovative or useful projects and project data, as they each bring unique perspectives to the table:

- *Elected and executive officials* have an understanding of overall jurisdiction needs and are able to communicate how the mitigation plan can support social, economic, or environmental conditions.
- *Local planners* can help the jurisdiction understand past, current, and future jurisdiction development trends, policies or activities that affect development, how development affects vulnerability to hazards, and how hazard mitigation can be incorporated into various planning mechanisms.
- *Emergency Managers and first responders* have information on past occurrences and existing preparedness measures, and have a direct line of communication with the NYS DHSES.
- *Geographic Information System (GIS) specialists* can analyze and map data to support the planning process and communicate complex information, such as the locations of assets at risk in hazard prone areas and estimates of damage for a particular disaster scenario. This might be done in consultation with County GIS staff.
- *Floodplain administrators* provide information on local flood hazard maps, floodplain ordinance, repetitive loss properties, and actions to continue compliance with the National Flood Insurance Program and reduce flood losses.
- *Public works staff* can help identify current or projected problems for the jurisdictions' infrastructure that can be addressed through capital improvements supported by the mitigation plan.

For more guidance on stakeholder identification, see:

[Mitigation Guide - Worksheet 2.1](#)

The following table provides an example of how the plan might document the identification and invitation of key stakeholders for each jurisdiction.

Insert Jurisdiction's Name Here

Individuals Notified of the Mitigation Plan Development and Invited to Participate

Local Jurisdiction Role/Position	Name of Person Invited	Email of Person Invited	Date of Invitation	Method of Invitation	Agreed to participate? yes/no	Feedback Provided? Yes/no
Land Use/ Jurisdiction Planner						
Emergency Manager						
Floodplain Manager/ Administrator						
Public Works Director/ City Engineer						
Building Code Official						
Fiscal/Budget Officer						
Elected Officials						
Local Hospital						
Major University						
Significant Business						
Neighboring County 1						
Neighboring County 2						
Tribal Nation						
Example	George Washington	gwashington@town.gov	12/12/14	Email and letter sent	Yes	Yes

2. Assess Critical Facilities

Critical facilities must remain accessible and functional before, during and after disasters to meet the jurisdiction's Continuity of Government (COG) and Continuity of Operations (COOP) standards, and to support emergency, government and sheltering functions.

Identifying Critical Facilities: Federal Guidelines (FEMA)

FEMA defines a critical facility as one that provides services and functions essential to a community, especially during and after a disaster. More information can be found on the agency web site at <https://www.fema.gov/critical-facility>. Examples of critical facilities include:

- Police stations
- Fire stations
- Critical vehicle and equipment storage facilities
- Emergency Operations Centers
- Utilities and power generating stations
- Communication centers
- Medical facilities, including hospitals, nursing homes, blood banks, and health care facilities
- Schools and day care centers, especially if designated as a disaster shelter
- Public and private utility facilities
- Drinking water and wastewater treatment plants
- Drug and alcohol treatment custodial care programs
- Homeless shelters
- Tier 2 facilities: Structures or facilities that produce, use, or store highly volatile, flammable, explosive, toxic, and/or water-reactive materials; facilities designed for bulk storage of chemicals, petrochemicals, hazardous or toxic substances, or floatable materials (as defined by NYS DEC)

Jurisdictions may also want to analyze risks to major employers and assess the economic impact of prolonged down-time due to disasters.

Identifying Critical Facilities: State Guidelines (NYS DEC and NYS DHSES)

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>.

Protecting Critical Facilities

In assessing vulnerabilities to critical facilities, jurisdictions must identify exposure to hazards and propose methods to mitigate risks. This can be accomplished through a table, or with GIS overlay maps specific to hazards of concern.

FEMA provides the following recommendations for protecting infrastructure and critical facilities from damage:

- Incorporate hazard mitigation principles into all aspects of publicly-funded development;
- Incorporate mitigation retrofits for public facilities into the annual capital improvements program;
- Engineer or retrofit roads and bridges to withstand hazards and ensure access;
- Relocate or underground electrical infrastructure;
- Design and build water tanks or wells for use in times of potable water interruption;
- Install quick-connect emergency generator hook-ups for critical facilities.

While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection.

For at-risk facilities that are not owned by or the responsibility of the jurisdiction, the jurisdiction should include an action to work with the responsible party to develop a mitigation strategy

3. Plan for Displaced Residents

Intermediate and long-term housing options must be available for relocating displaced residents and maintain post-disaster social and economic stability.

Intermediate Needs – Temporary Housing

The jurisdiction must identify sites for the placement of temporary housing units to house residents displaced by disaster. While sites can be coordinated county wide, it is critical that each jurisdiction identify a site. Residents may be accommodated by a temporary housing location that is outside of the jurisdiction in which they live as long as mutual aid agreements between municipalities are in place.

Examples of potential locations include existing mobile home parks; recreational vehicle/camping grounds; public or private land or parkland; or a site easily convertible for the placement of temporary housing units. Such sites must:

- Be compliant with the New York State Uniform Fire Prevention and Building Code <http://www.dos.ny.gov/cns/lq03.htm>;
- Be constructed with a first-floor elevation placed no less than 2' above the Base Flood Elevation (i.e., of the 100-year flood level);
- If located in a neighboring jurisdiction, include discussion about plans with residents and ensure procedures are consistent with local mitigation and emergency plans, recovery plans, evacuation routes, etc.;
- Consider water, wastewater, electrical and firefighting accessibility.

Long-term Needs – Permanent Housing

Structures located in the SFHA may need to be relocated, or new properties must be built once severely damaged properties are razed. Jurisdictions must identify all suitable sites currently owned by the jurisdiction, and potential sites under private ownership that meet applicable local zoning requirements and floodplain laws.

Consideration should be given to allowing residents of a given jurisdiction to continue to reside there. However, discussion of this matter may need to include site development elsewhere if such available locations are not available in a given jurisdiction.

4. Plan for Evacuation Needs and Sheltering

Evacuation and sheltering measures must be in place and available for public awareness to protect residents and mitigate risk, stress and personal hardships during hazard events

A jurisdiction's existing Comprehensive Emergency Management Plan (CEMP) or other plans, policies and procedures may outline evacuation routes and procedures to remove citizens from a vulnerable location prior to and during an incident. If plans for evacuation and sheltering are already in place, the mitigation planning jurisdiction should analyze and update these materials as needed. The plan must refer to this information and include the URL of where it can be found on the county web site.

If such plans do not exist, they must be developed and:

- Identify evacuation routes and how this information is accessible to the public;
- Identify shelters for evacuated citizens and how this information is accessible to the public leading up to and during an incident;
- Explain provisions available to address medical needs, access and functional needs, accommodation for pets, and compliance with the Americans with Disabilities Act (see www.ada.gov);
- Outline pre-disaster actions required to make evacuation and shelter plans viable;
- Document evidence of coordination with adjoining jurisdictions (if applicable).

The plan should address jurisdictions with residential neighborhoods and critical facilities that have been flooded, inundated, or isolated by water.

5. Document Past Mitigation Accomplishments

Past mitigation actions provide a context for the jurisdiction's projects, and can help to evaluate accuracy of assumptions to support future mitigation planning.

FEMA Element D2 (see FEMA Local Mitigation Plan Review Guide, page 27) requires a progress update on local mitigation efforts and changes in priorities since the approval of the previous plan. NYS DHSES requirement F5 requires the documentation of local mitigation efforts and accomplishments within the past five (5) years for new plans as well as updates, regardless of inclusion in the previous plan, and regardless of funding source.

The goal is to provide a context for the jurisdictions' projects, act as a source of ideas for mitigation projects and evaluate the accuracy of assumptions and engineering solutions to inform future projects, and to support future mitigation planning and its coordination with other planning, zoning and environmental procedures within the jurisdiction.

It is recommended that a table be included within each jurisdictional annex to convey this information.

The following table provides an example of how the plan might include this information within each jurisdictional annex:

Insert Jurisdiction's Name Here
Past Mitigation Accomplishments

Proj #	Project Name	Hazard Addressed	Brief Summary of the Original Problem and the Solution (Project)	Evaluation of Success	
				Cost	
				Level of Protection	
				Damages Avoided; Evidence of Success	
				Cost	
				Level of Protection	
				Damages Avoided; Evidence of Success	
				Cost	
				Level of Protection	
				Damages Avoided; Evidence of Success	

Other resources and ideas for documentation can be found at: http://mitigationguide.org/wp-content/uploads/2013/05/Worksheet-7.1.pdf?sm_aui_vvnVbMZWRtNJKqj.

6. Include Jurisdictional Annexes

Jurisdictional annexes provide a unique, stand-alone guide to mitigation planning for each jurisdiction.

Multi-jurisdictional Hazard Mitigation Plans allow certain elements of the planning process to be streamlined and shared, taking some of the burden of effort and cost off of each jurisdiction. The goal is to develop a shared portion of the plan that relates to the multiple jurisdictions therein from a county wide perspective, while also developing individual jurisdictional annexes to identify the unique local risks and mitigation strategies.

Identify Jurisdictional Participation

Every jurisdiction within the county's borders should be included in this multi-jurisdictional plan, including the county itself. Efforts to participate should be included for all jurisdictions, including those that did not fully participate and are therefore not seeking FEMA/NYS DHSES approval at the time of submittal.

The plan must clearly identify all jurisdictions and whether or not they are seeking approval for adoption from FEMA and NYS DHSES.

The following table provides an example of how the plan might include this information in the introduction section:

XXX County Jurisdictions

Jurisdiction	Letter of Commitment to Planning Process	Attended Planning Meetings	Provided Update on Past Projects	Submitted Mitigation Actions for Current Plan	Seeking Approval for Adoption (Meets all previous requirements)
Howard County	x	x	x	x	x
Aubrey, City	x	x		x	
Easterville, Town	x	x		x	
Easterville, Village	x	x	x	x	x
Louden, Town	x	x	x	x	x
Ontario, Village					
Pasadena, City	x			x	
Scupper, Town	x	x	x	x	x
Yardley, Village	x	x		x	

Letters of Commitment to Planning Process establishes a commitment from and a cooperative working relationship between all participating jurisdictions in the development and implementation of the plan.

<http://mitigationguide.org/wp-content/uploads/2013/05/Worksheet-1.2.pdf>

Attending Planning Meetings is a critical component of participation which facilitates group discussion and allows for a greater perspective of how jurisdictions can work together to further mitigation efforts.

Jurisdictions must **Provide an Update on Past Projects** to help evaluate past efforts and inform future planning.

Jurisdictions must **Submit Mitigation Actions for the Current Plan** to establish priorities and make successful implementation as likely as possible.

In order to **Seek Approval for Adoption**, jurisdictions must meet all Federal requirements.

Provide Jurisdictional Information

The plan must be organized to include an annex for every jurisdiction. Non-participating jurisdictions must have an annex included in the plan, with as much of the information noted below that is available, as a placeholder to allow for future participation.

Each jurisdictional annex must include the following information:

- Contact Information;
 - Name, Title, Phone Number, Address, Email Address;
 - If alternate contact information is available, this should be included as well.
- Jurisdiction Profile;
 - For example: population, land size, demographics, topography, brief history, governing body format.
- Hazard Identification;
 - Hazard Identification and Risk Assessment occurs in the county wide shared plan. The jurisdictional annex should identify only those hazards that are unique and specific to the jurisdiction.
- Summary of Unique Hazard Event History/Impact on jurisdiction;
 - A complete Hazard Event History will be included in the county wide shared plan. The jurisdictional annex should be a discretionary list of events that have had particular impact on the jurisdiction, and therefore inform the unique mitigation strategies developed to address.
- National Flood Insurance Program (NFIP) Summary (to meet Federal Standards);
- Critical Facilities Information (to meet State Standard F2);
- Public involvement;
 - Jurisdictional annexes should identify any specific problems, solutions or ideas brought to the planning process from the public or local authorities; if this is done holistically at the County level, this can be included only in the County annex.
- Capabilities Assessment;
- Mitigation Strategy;
 - All identified previous mitigation activities with current status;
 - Previous mitigation activities completed (to meet State Standard F5);
 - All proposed mitigation activities (both new and carried forward, to meet State Standard F7);
 - Action Worksheets for a minimum of two (2) proposed mitigation activities (to meet State Standard 7).

7. 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.

List all proposed mitigation activities

The plan must include a single complete list of mitigation projects in each jurisdictional annex. While all mitigation projects on a jurisdiction's wish list should be assessed and discussed, only those that have reasonable potential to be accomplished within the lifespan of the plan should be included. The capabilities and resources of a given jurisdiction should be taken into consideration when establishing its wish list. Projects should be prioritized according to jurisdiction need and focus on achievable efforts. The project list should include those that may not meet FEMA eligibility or cost-effectiveness requirements since funding should be sought from multiple sources to achieve a jurisdiction's mitigation goals most quickly.

The information requested in the NYS DHSES Proposed Project Table on the following page must be provided within the plan.

- Project Name and Number;
- Goal and/or Objective being met;
- Hazard to be mitigated;
- Description of the Problem;
- Description of the Solution (Project Description);
- Whether or not the project is related to a Critical Facility (and if so, assurance that the facility will be protected to the 500-year event or greatest damage scenario, to meet State Standard F2);
- Estimated Timeline;
- Lead Agency responsible for implementation;
- Estimated Costs;
- Estimated Benefits;
- Potential Funding Sources;
- Priority.

Complete a NYS DHSES Action Worksheet for a minimum of two projects

If a proposed mitigation project is viable and a priority to the jurisdiction, consideration should be given to the elements required to successfully implement. This provides the jurisdiction with a more developed starting point for implementation should funding become available or priorities dictate urgency. This also provides a guide for NYS DHSES to assess a county or jurisdiction's needs and quickly identifies eligible projects for funding should grants become available at the state level.

For mitigation activity ideas and suggestions, see: https://www.fema.gov/media-library-data/20130726-1904-25045-0186/fema_mitigation_ideas_final508.pdf

While we recommend further consideration be given to all proposed actions by completing a NYS DHSES Action Worksheet, each jurisdiction must complete a minimum of two (2) NYS DHSES Action Worksheets for the jurisdiction's highest priority projects. For jurisdictions containing a Special Flood Hazard Area, one (1) of these Action Worksheets must be for a project that addresses flooding.

DHSES administers three mitigation grant programs: the Hazard Mitigation Grant Program (HMGP) rolled out after a declared disaster in NYS, and the annual Pre-Disaster Mitigation (PDM) and Flood Mitigation Assistance (FMA) programs. Letters of Intent (LOIs) for projects more fully developed in the NYS DHSES Action Worksheets will rank higher and will be prioritized for funding over those that are not.

The NYS DHSES Action Worksheet can be found on page 12, with subsequent guidance. This Worksheet will be made available for completion in electronic format as well.

PROPOSED PROJECTS

*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.

Proj #	Project Name	Goal/Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority

The use of this table is not a requirement, but may be used as a starting point to develop actions that must provide:

- **Project Name and Number;**
 - This should be a unique identifier for the project. If the project was included in a previous plan and is being carried over, the identifier should be consistent or the previous one referenced.
- **Goal and/or Objective being met;**
 - The project must be consistent with a goal and/or objective identified in the plan.
- **Hazard to be mitigated;**
 - Identify the Hazard to be mitigated.
- **Description of the Problem;**
 - Provide a brief description of hazard’s impact to the community, both previous damages and/or potential damages.
- **Description of the Solution (Project Description);**
 - Provide a brief description of the proposed project, including location, scope of work of mitigation action (including studies/assessments required or already performed), and any known environmental or historic preservation concerns that may arise upon implementation.
- **Whether or not the project is related to a Critical Facility;**
 - Is this project related to a critical facility? Yes/No. As sampled above, it must be noted that any project related to a critical facility must assure that the facility will be protected to the 500-year event or greatest damage scenario, to meet State Standard F2.
- **Estimated Timeline;**
 - Identify the time required for completion of the project upon implementation.
- **Lead Agency responsible for implementation;**
 - Identify the lead agency or department responsible for implementation.
- **Estimated Costs;**
 - Provide an estimated cost for implementation. Rough dollar figures are ideal, but if unknown, a specified range is acceptable.
- **Estimated Benefits;**
 - Provide a description of the estimated benefits, either quantitative and/or qualitative.
- **Potential Funding Sources;**
 - Identify potential funding sources for implementation, which will be supported by a list as required in State Standard F8; and
- **Priority.**
 - Identify the prioritization of this project as determined by a methodology established by the community.

XXXXXXX County Multi-Jurisdictional Hazard Mitigation Plan

(Name of Jurisdiction)

NYS DHSES Action Worksheet

Project Name:			
Project Number:			
Risk / Vulnerability			
Hazard of Concern:			
Description of the Problem:			
Action or Project Intended for Implementation			
Description of the Solution:			
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:		Estimated Benefits (losses avoided):	
Useful Life:			
Estimated Cost:			
Plan for Implementation			
Prioritization:		Desired Timeframe for Implementation:	
Estimated Time Required for Project Implementation:		Potential Funding Sources:	
Responsible Organization:		Local Planning Mechanisms to be Used in Implementation, if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

XXXXXXX County Multi-Jurisdictional Hazard Mitigation Plan

(Name of Jurisdiction)

NYS DHSES Action Worksheet

Project Name:	Each action must have a unique project number referenced here and in the Action Tables.		
Project Number:	Each action must have a unique project name referenced here and in the Action Tables.		
Risk / Vulnerability			
Hazard of Concern:	Identify the hazard being addressed with this action.		
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.		
Action or Project Intended for Implementation			
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).		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	Identify the level of protection the proposed project will provide. Ex. 100-year (1%) flood.	Estimated Benefits (losses avoided):	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.
Useful Life:	Identify the number of years the project will provide protection against the hazard.		
Estimated Cost:	Identify all estimated costs associated with implementation.		
Plan for Implementation			
Prioritization:	Identify the priority based on the prioritization method agreed upon.	Desired Timeframe for Implementation:	Identify the desired start time for this project. Ex. Within 6 months.
Estimated Time Required for Project Implementation:	Provide the estimated time required to complete the project from start to end.	Potential Funding Sources:	Multiple sources of potential funding should be listed when appropriate.
Responsible Organization:	Identify the name of a department or agency responsible for implementation, not the jurisdiction.	Local Planning Mechanisms to be Used in Implementation, if any:	Consider the use of local planning mechanisms that will be used to implement this project.
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	
	<i>Alternative 1</i> – Brief Description		Include a description of pros/cons of Alternative 1.
	<i>Alternative 2</i> – Brief Description		Include a description of pros/cons of Alternative 2.
Progress Report (for plan maintenance)			
Date of Status Report:	This section should be completed during plan maintenance/evaluation.		
Report of Progress:	Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.		
Update Evaluation of the Problem and/or Solution:	Provide an updated description of the problem and solution, and what has happened since initial consideration/development.		

8. Identify Funding Sources

Identifying strategic funding sources is integral to successful coordination and implementation of mitigation actions

The list of potential funding sources must include a brief description of each funding program and a link to the web pages describing the funding opportunity.

Section 4 Table 4.5h of the NYS Hazard Mitigation Plan provides an example of how to document sources and can be used as a starting point to identify potential funding sources as applicable to the county. The jurisdiction is also expected to research and identify additional funding opportunities.

<http://www.dhSES.ny.gov/recovery/mitigation/documents/2014-shmp/Section-4-Mitigation-Strategy.pdf>

9. Plan for Climate Change

Acknowledging and planning for climate change protects residents, avoids or reduces damage to property and public infrastructure, and reduces personal hardship.

Plans developed with NYS DHSES-administered funds must include this information as part of the hazard vulnerability analysis and contain strategies/projects to address increased vulnerability that may result from climate change. This requirement was established to encourage jurisdictions to plan for and accommodate climate change and sea level rise. By developing mitigating strategies and/or projects for hazards that are exacerbated by climate change, jurisdictions will better protect residents, avoid or reduce damage to property and public infrastructure, and reduce personal hardship.

Jurisdictions must consider how climate change may affect their vulnerability or increased frequency of occurrence and/or severity in exposure to flooding, wildfire, drought and extreme temperatures.

Jurisdictions with coastal property must also analyze their vulnerability to sea level rise.

Numerous resources are available to the mitigation planning committee, including the following:

Resource: ***NY State 2014 Hazard Mitigation Plan: Section 3.4 – Climate Change***

Description: Climate Change was first discussed in the 2011 NYS mitigation plan and expanded in 2014 update. The Climate Change section highlights current initiatives and reports on adaptation strategies being developed by the state.

Location: <http://www.dhSES.ny.gov/recovery/mitigation/plan.cfm>

Resource: ***Responding to Climate Change in New York State (ClimAID) – 2014 Update***

Description: ClimAID is a climate analysis of the seven regions of New York State. The report, produced by the NYS Energy Research and Development Authority (NYSERDA), builds on data released in 2014 by the worldwide Intergovernmental Panel on Climate Change.

Location: <https://www.nyserda.ny.gov/climaid>

Resource: ***New York Climate Change Science Clearinghouse***

Description: The Clearinghouse is a gateway for policymakers, local planners, and the public to identify and access documents, data, websites, tools, and maps relevant to climate change adaptation and mitigation across New York State. The goal of the NYCCSC is to support scientifically sound and cost-effective decision-making. The vision is a dynamic site where users can find information in multiple ways, including through interactive tools that use data from different sources.

Location: <https://www.nyclimatescience.org/>

Resource: ***FEMA: Climate Resilient Mitigation Activities***

Description: FEMA provides fact sheets, job aids and cost-benefit analysis tools to support community efforts to reduce the risk associated with climate change. Climate Resilient Mitigation Activities are eligible for Hazard Mitigation Grant Program funding available following a major disaster; and for competitive grants under the annual Pre-Disaster Mitigation and Flood Mitigation Assistance programs.

Location: <https://www.fema.gov/climate-resilient-mitigation-activities-hazard-mitigation-assistance>

Resource: ***NYS Climate Smart Communities Climate Smart Resiliency Planning: A Planning Evaluation Tool***

Description: Designed specifically for NYS Communities, this NYSDEC-developed resource is a self-administered planning assessment tool designed to help local officials assess their communities' readiness and resilience in the face of changing weather patterns and rising sea levels.

Location: See the Climate Smart Resiliency Planning link on the right under "Important Links"
<http://www.dec.ny.gov/energy/82168.html>



APPENDIX J. LINKAGE PROCEDURES

This Appendix contains the linkage procedures for the Monroe County Hazard Mitigation Plan.

DRAFT



J.1 ADMINISTRATIVE PROCESS FOR “LINKAGE” TO THE MONROE COUNTY HAZARD MITIGATION PLAN

The development of the Monroe County Hazard Mitigation Plan 2023 Update (the Plan) included the County and all eligible local governments within the defined planning area are included in this plan. Completed jurisdictional annexes are presented in Section 9. Any non-participating local jurisdictions such as Fire Districts, Utility Districts, School Districts and any other eligible local government as defined in 44 CFR 201.2 within the Monroe County planning area can join this plan as a participating jurisdiction and to ultimately achieve approved status by following the linkage procedures defined in this appendix.

It is assumed that some or all of these local jurisdictions may choose to "link" to the Plan at some point in time to gain eligibility for programs under the DMA. In addition, some of the current partnership may not continue to meet eligibility requirements due to the lack of active participation as prescribed by the plan. These "linkage" procedures will define the requirements established by the Monroe County HMP Steering Committee and all planning partners for dealing with the increase or decrease in planning partners linked to this plan. It should be noted that currently non-participating jurisdictions within the defined planning area are not obligated to link to this plan. These jurisdictions can choose to do their own “complete” plan that addresses all required elements of section 201.6 of 44CFR.

J.1.1 Increasing the Partnership Through Linkage

Eligibility

Eligible jurisdictions located in the planning area may link to this plan at any point during the plan’s performance period. Eligible jurisdictions located in the planning area may link to this plan at any point during the plan’s performance period (5 years after final approval). Eligibility will be determined by the following factors:

- The linking jurisdiction is a local government as defined by the Disaster Mitigation Act.
- The boundaries or service area of the linking jurisdiction is completely contained within the boundaries of the planning area established during the 2023 hazard mitigation plan development process.
- The linking jurisdiction’s critical facilities were included in the critical facility and infrastructure risk assessment completed during the 2023 plan development process.

Requirements

It is expected that linking jurisdictions will complete the requirements outlined below and submit their completed template to the lead agency Monroe County Office of Emergency Management for review within six months of beginning the linkage process:

1. The Monroe County Hazard HMP Steering Committee has established an annual window for which linkage to the plan can occur. Linking jurisdictions are instructed to complete the following procedures during this time frame.
2. The current non-participating jurisdiction contacts the Monroe County HMP Coordinator for the Plan and requests a "Linkage Package". The Monroe County HMP Coordinator is:

Timothy Henry, Office of Emergency Management
Monroe County Department of Public Safety
1190 Scottsville Road, Suite 200
Rochester, NY 14624





(585) 753-3816

Email: timhenry@monroecounty.gov

3. The Monroe County HMP Coordinator will provide a linkage packages that includes:
 - Copy of Volume 1 and 2 of the Plan (CDROM).
 - Planning Partner's Expectations Sheet.
 - A Sample "Letter of Intent" to Link to the Plan.
 - A Jurisdictional Template and Instructions.
 - Catalog of Hazard Mitigation Alternatives or the Mitigation Catalog.
 - A copy of Section 201.6 of Chapter 44, the Code of Federal Regulations (44CFR), which defines the federal requirements for a local hazard mitigation plan.
4. The new jurisdiction will be required to review both volumes of the Plan which includes the following key components for the planning area:
 - The Monroe County risk assessment;
 - The plan's goals and objectives;
 - Plan implementation and maintenance procedures;
 - Catalog of potential mitigation actions; and
 - County-wide initiatives.

Once this review is complete, the jurisdiction will complete its specific jurisdictional annex by following the template and its instructions for completion provided by the Monroe County HMP Coordinator. Technical assistance can be provided upon request by completing the request for technical assistance (TA) form provided in the linkage package. This TA may be provided by the Monroe County HMP Coordinator or any other resource within the Planning Partnership such as a member of the HMP Steering Committee or a currently participating jurisdiction. The Monroe County HMP Coordinator will determine who will provide the TA and the possible level of TA based on resources available at the time of the request.

5. The new jurisdiction will also be required to develop a public involvement strategy that ensures their public's ability to participate in the plan development process. At a minimum, the new jurisdiction must make an attempt to solicit public opinion on hazard mitigation at the onset of this linkage process and a minimum of one public meeting to present their draft jurisdiction specific annex for comment, prior to adoption by the governing body. The Planning Partnership will have available resources to aid in the public involvement strategy such as the Plan website. However, it will be the new jurisdiction's responsibility to implement and document this strategy for incorporation into their annex.

It should be noted that the Jurisdictional Annex templates do not include a section for the description of the public process. This is because the original partnership was covered under a uniform public involvement strategy that covered the operational area that is described in Volume 1 of the plan. Since the new partner was not addressed by that strategy, they will have to initiate a new strategy, and add a description of that strategy to their annex. For consistency, new partners are encouraged to follow the public involvement format utilized by the initial planning effort as described in Volume I of the Plan.

6. Once their public involvement strategy is completed and they have completed their template, the new jurisdiction will submit the completed package to the Monroe County HMP Coordinator for a pre-adoption review to ensure conformance with the regional plan format.



7. The Monroe County HMP Coordinator will review for the following:
 - Documentation of public involvement and mitigation action development strategies;
 - Conformance of template entries with guidelines outlined in instructions;
 - Chosen actions are consistent with goals, objectives, and mitigation catalog of Monroe County Hazard Mitigation Plan; and
 - Designated point of contact.

The Monroe County HMP Coordinator may utilize members of the HMP Steering Committee or other resources to complete this review. All proposed linked annexes will be submitted to the HMP Planning Committee for their review and comment prior to submittal to the New York State Division of Homeland Security and Emergency Services (NYS DHSES).

8. Plans approved and accepted by the HMP Steering Committee will then be forwarded to NYS DHSES for review with cover letter stating the forwarded plan meets local approved plan standards and whether the plan is submitted with local adoption or for criteria met/plan not adopted review.
9. NYS DHSES will review plans for state and federal compliance. Non-compliant plans are returned to the jurisdiction for correction. Compliant plans are forwarded to FEMA Region II office for review with annotation as to the adoption status.
10. FEMA Region II reviews the new jurisdiction's plan in association with the approved plan to ensure DMA compliance. Region II notifies new jurisdiction of results of review with copies to NYS DHSES and approved planning authority.
11. New jurisdiction corrects plan's shortfalls (if necessary) and resubmits to NYS DHSES through the approved plan lead agency.
12. For plans with no shortfalls that have not been adopted from the Region II review or outstanding corrected shortfalls, the new jurisdiction governing authority adopts the plan (if not already accomplished) and forwards adoption resolution to Region II with copies to lead agency and NYS DHSES.
13. Region II Director notifies new jurisdiction governing authority of plan approval.

The new jurisdiction plan is then included with the Monroe County HMP and the linking jurisdiction is committed to participate in the ongoing plan implementation and maintenance identified in Volume 1 of the HMP.



APPENDIX K. DAM SUPPLEMENT

K.1 Overview

This section contains information and details to support information provided in Section 4 (County Profile) and Section 5.4.5 (Flood), which provide the distribution of dams located within Monroe County and its municipalities, along with potential impacts of high hazard dams as discussed in the Emergency Action Plans (EAP) for those dams. Due to the sensitive nature of this information, details have been redacted. Contact the HMP Coordinator, Matthew Jarrett, Office of Emergency Management at matjarrett@monroecounty.gov for more information.

DRAFT