



SECTION 1. INTRODUCTION

1.1 BACKGROUND

A Hazard Mitigation Plan (HMP) is a living document that communities use to reduce their vulnerability to hazards. It forms the foundation for a community's long-term strategy to reduce disaster losses and creates a framework for decision making to reduce damages to lives, property, and the economy from future disasters. Examples of mitigation projects include home acquisitions or elevations to remove structures from high risk areas, upgrades to critical public facilities, and infrastructure improvements. Ultimately, these actions reduce vulnerability, and communities are able to recover more quickly from disasters. Genesee County has demonstrated its commitment to reducing disaster losses by initially developing its multi-jurisdictional HMP in 2008, updating information upon which to base a successful mitigation strategy to reduce the impacts of natural disasters and to increase the resiliency of its communities.

In response to the requirements of the Disaster Mitigation Act of 2000 (DMA 2000), Genesee County (and its jurisdictions) developed this HMP, which is an update of the 2008 Genesee County Multi-Jurisdictional HMP. DMA 2000 amends the Stafford Act and is designed to improve planning for, response to, and recovery from disasters by requiring state and local entities to implement pre-disaster mitigation planning and develop HMPs. The Federal Emergency Management Agency (FEMA) has issued guidelines for HMPs, and the New York State Division of Homeland Security and Emergency Services (NYS DHSES) also supports plan development for jurisdictions in New York State.

Specifically, DMA 2000 requires that states, with support from local governmental agencies, update HMPs on a 5-year basis to prepare for and reduce the potential impacts of natural hazards. DMA 2000 is intended to facilitate cooperation between state and local authorities, prompting them to work together. This enhanced planning process will better enable local and state governments to convey their particular needs for mitigation, resulting in faster allocation of funding and more effective risk reduction projects.

Hazard Mitigation is any sustained action taken to reduce or eliminate the long-term risk and effects that can result from specific hazards.

FEMA defines a **Hazard Mitigation Plan** as the documentation of a state or local government evaluation of natural hazards and the strategies to mitigate such hazards.

1.1.1 DMA 2000 Origins -The Robert T. Stafford Disaster Relief and Emergency Assistance Act

In the early 1990s, a new federal policy regarding disasters began to evolve. Rather than simply reacting when disasters strike communities, the federal government began encouraging communities to first assess their vulnerability to various disasters and proceed to take actions to reduce or eliminate potential risks. The policy is based on the logic that a disaster-resistant community can rebound from a natural disaster with less loss of property or human injury, at much lower cost, and more quickly than a community that has not planned for a disaster. Moreover, other costs associated with disasters are minimized, such as the time lost from productive activity by business and industries.

DMA 2000 provides an opportunity for states, tribes, and local governments to take a new and revitalized approach to mitigation planning. DMA 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act by repealing the previous mitigation planning provisions (Section 409) and replacing them with a new set of requirements (Section 322). Section 322 sets forth the requirements that communities evaluate natural hazards within their respective jurisdictions and develop an appropriate plan of action to mitigate those



hazards, while emphasizing the need for state, tribal, and local governments to closely coordinate mitigation planning and implementation.

The amended Stafford Act requires that each local jurisdiction identify potential natural hazards to the health, safety, and well-being of its residents, and identify and prioritize actions that can be taken by the community to mitigate those hazards before disaster strikes. For communities to remain eligible for hazard mitigation assistance from the federal government, they must first prepare, and then maintain and update an HMP.

Responsibility for fulfilling the requirements of Section 322 of the Stafford Act and administering the FEMA Hazard Mitigation Program has been delegated to the State of New York, specifically to NYS DHSES. FEMA also provides support through guidance, resources, and plan reviews.

1.1.2 Benefits of Mitigation Planning

The planning process helps prepare citizens and government agencies to better respond when disasters occur. Mitigation planning also allows Genesee County as a whole, and participating municipalities, to remain eligible for mitigation grant funding for mitigation projects that will reduce the impact of future disaster events. Eligible projects include property acquisition and structure demolition, structure elevation, localized flood risk reduction projects, infrastructure retrofit, soil stabilization, wildfire mitigation, post-disaster code enforcement, and planning related activities. The long-term benefits of mitigation planning include the following:

National Benefit-Cost Ratio (BCR) Per Peril <small>*BCR numbers in this study have been rounded</small>		Beyond Code Requirements	Federally Funded
Overall Hazard Benefit-Cost Ratio		\$4:1	\$6:1
Riverine Flood		\$5:1	\$7:1
Hurricane Surge		\$7:1	Too few grants
Wind		\$5:1	\$5:1
Earthquake		\$4:1	\$3:1
Wildland-Urban Interface Fire		\$4:1	\$3:1

Source: FEMA 2018; Federal Insurance Mitigation Administration 2018
 Note: Natural hazard mitigation saves \$6 on average for every \$1 spent on federal mitigation grants.

- An increased understanding of hazards faced by Genesee County communities
- A more sustainable and disaster-resistant community
- Financial savings through partnerships that support planning and mitigation efforts
- Focused use of limited resources on hazards that may have the biggest impact on the community
- Reduced long-term impacts and damage to human health and structures, and, therefore, reduced repair costs

1.2 CONTENTS OF THIS PLAN

The Genesee County HMP update is organized as a two-volume plan. Volume I provides information on the overall planning process and natural hazard profiling and vulnerability assessments, which serve as a basis for understanding risk and identifying appropriate mitigation actions. As such, Volume I is intended for use as a resource for on-going mitigation analysis. Volume II provides an annex dedicated to each participating jurisdiction. Each annex summarizes the jurisdiction’s legal, regulatory, and fiscal capabilities; identifies vulnerabilities to natural hazards; records status of past mitigation actions; and presents an individualized mitigation strategy. The annexes are intended to provide an expedient resource for each jurisdiction for implementation of mitigation projects and future grant opportunities, as well as place for each jurisdiction to record and maintain their local aspect of the countywide plan.



This HMP was prepared in accordance with the following regulations and guidance:

- FEMA *Local Mitigation Planning Handbook*, March 2013.
- FEMA *Integrating Hazard Mitigation into Local Planning*, March 1, 2013.
- FEMA *Plan Integration: Linking Local Planning Efforts*, July 2015.
- *Local Mitigation Plan Review Guide*, October 1, 2011.
- DMA 2000 (Public Law 106-390, October 30, 2000).
- 44 Code of Federal Regulations (CFR) Parts 201 and 206 (including: Feb. 26, 2002, Oct. 1, 2002, Oct. 28, 2003, and Sept. 13, 2004 Interim Final Rules).
- FEMA *How-To Guide for Using HAZUS-MH for Risk Assessment* FEMA Document No. 433, February 2004.
- FEMA *Mitigation Planning How-to Series* (FEMA 386-1 through 4, 2002), available at: <http://www.fema.gov/fima/planhowto.shtm>.
- FEMA *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards*, January 2013.
- NYS DHSES *Hazard Mitigation Planning Standard*, 2017.
- NYS DHSES *Hazard Mitigation Planning Standard Guide*, 2017.
- NYS Hazard Mitigation Plan, 2014.

Table 1-1 summarizes the requirements outlined in the DMA 2000 Interim Final Rule and provides the section where each is addressed in this HMP.

Table 1-1. FEMA Local Mitigation Plan Review Crosswalk

Plan Criteria	Primary Location in Plan
Prerequisites	
Adoption by the Local Governing Body: §201.6(c)(5)	Section 2.0; Appendix A
Planning Process	
Documentation of the Planning Process: §201.6(b) and §201.6(c)(1)	Section 3.0
Risk Assessment	
Identifying Hazards: §201.6(c)(2)(i)	Sections 5.2
Profiling Hazards: §201.6(c)(2)(i)	Section 5.4
Assessing Vulnerability: Overview: §201.6(c)(2)(ii)	Section 5.4
Assessing Vulnerability: Identifying Structures: §201.6(c)(2)(ii)(A)	Section 4.0 Section 5.4
Assessing Vulnerability: Estimating Potential Losses: §201.6(c)(2)(ii)(B)	Section 5.4
Assessing Vulnerability: Analyzing Development Trends: §201.6(c)(2)(ii)(C)	Section 4.0; Section 9 Annexes
Mitigation Strategy	
Local Hazard Mitigation Goals: §201.6(c)(3)(i)	Section 6.0; Section 9 Annexes
Identification and Analysis of Mitigation Actions: §201.6(c)(3)(ii)	Section 6.0; Section 9 Annexes
Implementation of Mitigation Actions: §201.6(c)(3)(iii)	Section 6.0; Section 9 Annexes
Multi-Jurisdictional Mitigation Actions: §201.6(c)(3)(iv)	Section 6.0; Section 9 Annexes
Plan Maintenance Process	
Monitoring, Evaluating, and Updating the Plan: §201.6(c)(4)(i)	Section 7.0



Plan Criteria	Primary Location in Plan
Incorporation into Existing Planning Mechanisms: §201.6(c)(4)(ii)	Section 7.0; Section 9 Annexes
Continued Public Involvement: §201.6(c)(4)(iii)	Section 7.0

1.2.1 Organizations Involved in the Mitigation Planning Effort

Genesee County and the participating jurisdictions intend to implement this HMP with full coordination and participation of County and local departments, organizations, and groups as well as by coordinating with relevant state and federal entities. Coordination helps to ensure that stakeholders have established communication channels and relationships necessary to support mitigation planning and mitigation actions described in Section 6 (Mitigation Strategy) and in the jurisdictional annexes in Section 9.

In addition to Genesee County, 19 local jurisdictions have participated in the planning process. The Village of Attica participates in the Wyoming County HMP. The Tonawanda Seneca Nation did not participate in the planning process. Genesee County jurisdictions are listed in Table 1-2 and presented in Figure 1-1.

Table 1-2. Participating Jurisdictions in Genesee County

Jurisdictions		
Genesee County	Bethany (Town)	Oakfield (Town)
Alabama (Town)	Byron (Town)	Oakfield (Village)
Alexander (Town)	Corfu (Village)	Pavilion (Town)
Alexander (Village)	Darien (Town)	Pembroke (Town)
Batavia (City)	Elba (Town)	Stafford (Town)
Batavia (Town)	Elba (Village)	
Bergen (Town)	Le Roy (Town)	
Bergen (Village)	Le Roy (Village)	

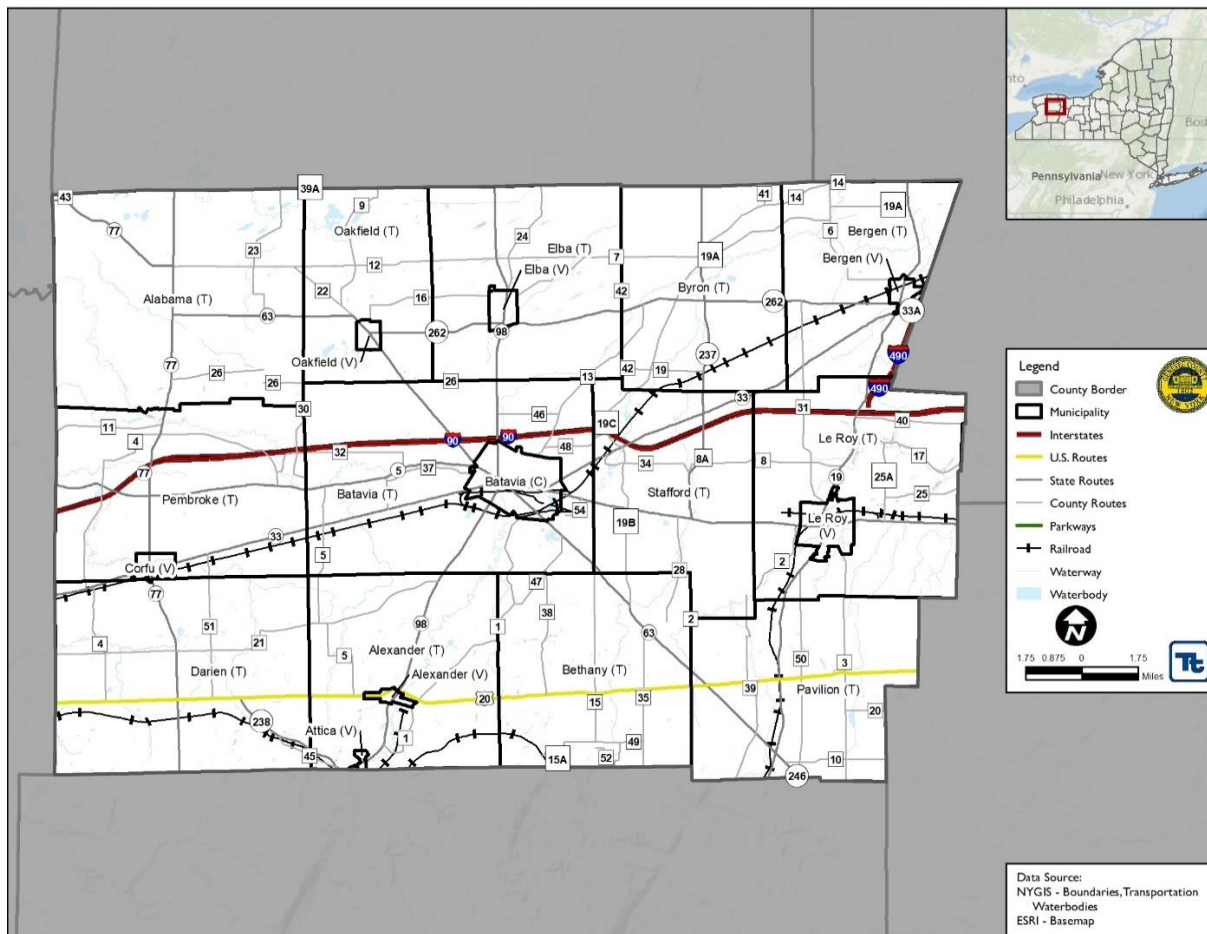
Multiple Agency Support for Hazard Mitigation

The primary responsibility for the development and implementation of mitigation strategies and policies lies with local governments. However, local governments do not work alone; various partners and resources at the regional, state, and federal levels are available to assist communities in the development and implementation of mitigation strategies. Within New York State, NYS DHSES is the lead agency providing hazard mitigation planning assistance and guidance to local jurisdictions. In addition, FEMA provides grants, tools, guidance, and training to support mitigation planning.

Additional input and support for this planning effort was obtained from a wide range of agencies as well as through public involvement (as discussed in Section 3). Under the project management of the Genesee County Office of Emergency Management Services (OEM), the Genesee County Hazard Mitigation Steering Committee and the Planning Partnership provided oversight for the preparation of this plan. Details regarding the roles and responsibilities of the Steering Committee and Planning Partnership are further discussed in Section 3. The Steering Committee includes representatives from the County Manager’s Office, OEM, Highway, Planning, and Soil & Water Conservation District; the Town of Batavia, the City of Batavia, and the Town of Elba. The Steering Committee has been formed as a leadership group to plan, guide, expedite, and implement the planning process. A list of Steering Committee and Planning Partnership members is provided in Section 3 (Planning Process).



Figure 1-1. Genesee County, New York, Mitigation Plan Area



Source: Genesee County 2018

1.2.2 Implementation of the 2008 Plan

Section 6 (Mitigation Strategy) and Section 9 (Jurisdictional Annexes) of the plan present the status of the mitigation projects identified in the 2008 Genesee County HMP. Numerous projects and programs have been implemented that have reduced hazard vulnerability to assets in the planning area. The county and municipal annexes, as well as plan maintenance procedures in Section 7 (Plan Maintenance), were developed to include specific, implementable activities. Future actions include integrating hazard mitigation goals into comprehensive plan updates; reviewing the HMP during updates of codes, ordinances, zoning, and development; and ensuring a more thorough integration of hazard mitigation, with its related benefits, will be completed within the upcoming five-year planning period.

1.2.3 Implementation of the Planning Process

This HMP documents the process and outcomes of the mitigation efforts of Genesee County and its jurisdictions. Documentation indicating that the prerequisites for plan approval have been met is included in Section 2. Additional information on the plan update process is included in Section 3. To support the planning process in updating this HMP, Genesee County and the participating jurisdictions have accomplished the following tasks:

- Developed a Steering Committee and Mitigation Planning Partnership (Planning Partnership)





- Reviewed the 2008 Genesee County Multi-Jurisdictional HMP
- Identified and reviewed hazards of greatest concern to the community (hazards of concern) to be included in the update
- Profiled hazards of concern
- Estimated the asset inventory at risk and potential losses associated with specific hazards
- Reviewed and updated the mitigation goals and objectives
- Reviewed mitigation strategy and actions outlined in the 2008 HMP to indicate progress
- Developed new mitigation actions to reduce the vulnerability of assets from hazards of concern
- Involved a wide range of stakeholders and the public in the plan update process
- Developed mitigation plan maintenance procedures to be executed after obtaining plan approval of the plan from NYS DHSES and FEMA

Hazards of Concern

Genesee County and participating jurisdictions reviewed the natural and human-caused hazards that caused measurable impacts in the planning area and updated the list of hazards of concern based on events, losses, and information available since the 2008 plan. Genesee County and participating jurisdictions evaluated the risk and vulnerability to the assets of each participating jurisdiction presented by each hazard of concern. Although the resulting hazard risk rankings varied for each jurisdiction, the summary risk rankings corresponded with that of Genesee County and are indicated in each jurisdictional annex. The hazard risk rankings were used to focus and prioritize individual jurisdictional mitigation strategies.

Goals and Objectives

The planning process included a review and update of the prior mitigation goals and the addition of all new objectives as a basis for the planning process and to guide the selection of appropriate mitigation actions addressing all hazards of concern. Further, the goal development process considered the mitigation goals expressed in the New York State HMP, as well as other relevant county and local planning documents, as discussed in Section 6 (Mitigation Strategy).

Plan Integration into Other Planning Mechanisms

Effective mitigation is achieved when hazard awareness and risk management approaches and strategies become an integral part of public activities and decision-making. Within the county there are many existing plans and programs that support hazard risk management, and thus it is critical that this HMP integrates, coordinates with, and complements those mechanisms. Comprehensive plans, codes and ordinances, local watershed plans are among the sources of information to update the county and municipal capabilities, to identify mitigation strategies, and to develop integration actions.

The “Capability Assessment” section of Section 6 (Mitigation Strategy) provides a summary and description of the existing plans, programs and regulatory mechanisms at all levels of government (federal state, county, and local) that support hazard mitigation within the county. Within each jurisdictional annex in Section 9 (Jurisdictional Annexes), the county and each participating jurisdiction identified how they have integrated hazard risk management into their existing planning, regulatory and operational/administrative framework (“existing integration”), and how they intend to promote this integration (“opportunities for future integration”).

A further summary of these continued efforts to develop and promote a comprehensive and holistic approach to hazard risk management and mitigation is presented in Section 9 (Jurisdictional Annexes).



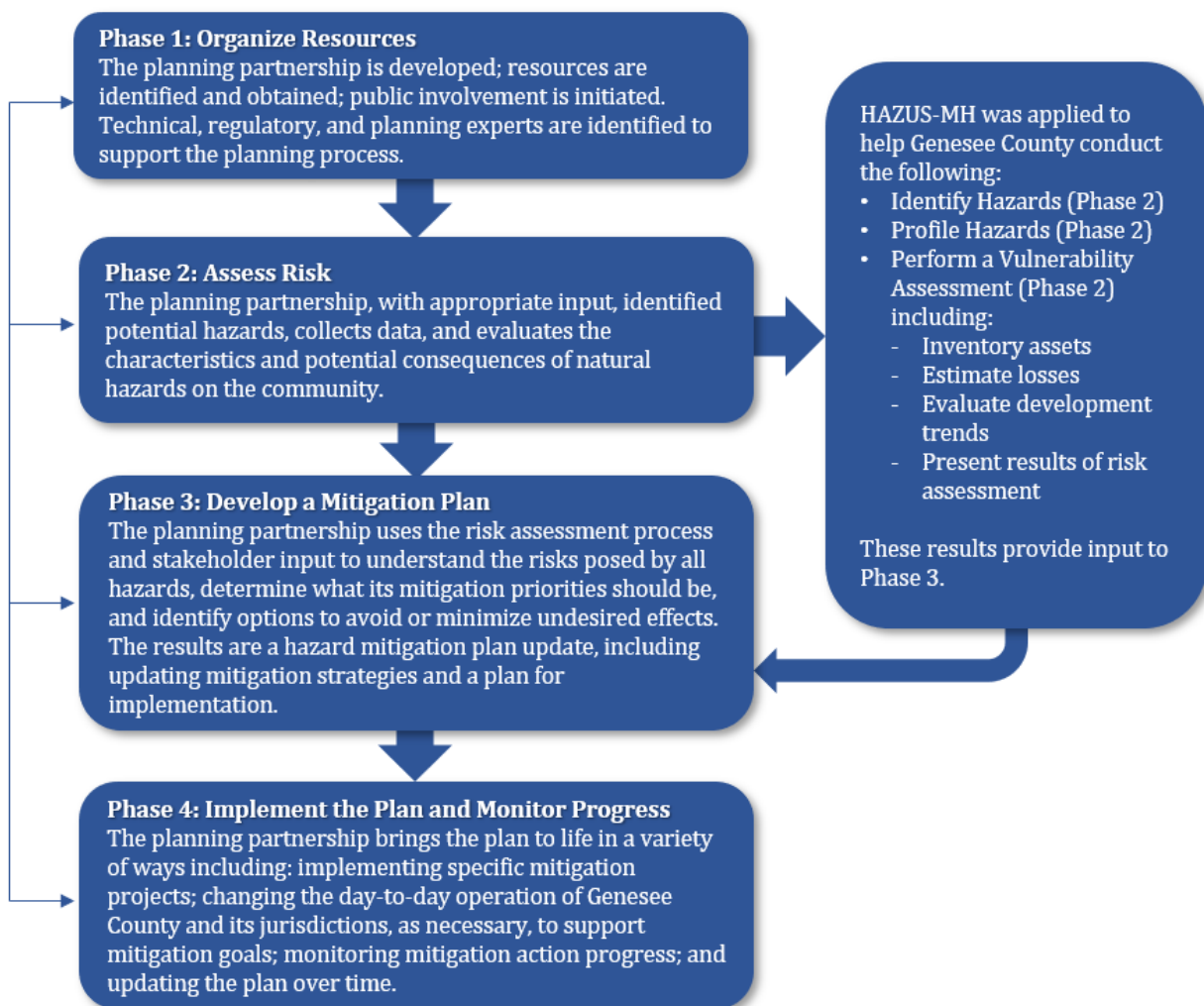
1.2.4 Implementation of Prior and Existing Local Hazard Mitigation Plans

Section 6 (Mitigation Strategy) and Section 9 (Jurisdictional Annexes) of the plan present the status of the mitigation projects identified in the 2008 Genesee County HMP. Numerous projects and programs have been implemented that have reduced hazard vulnerability to assets in the planning area. The county and municipal annexes, as well as plan maintenance procedures in Section 7 (Plan Maintenance), were developed to include specific, implementable activities. Future actions include integrating hazard mitigation goals into comprehensive plan updates; reviewing the HMP during updates of codes, ordinances, zoning, and development; and ensuring a more thorough integration of hazard mitigation, with its related benefits, will be completed within the upcoming five-year planning period.

1.2.5 Organization of This Mitigation Plan

As stated above in Section 1.2 (Contents of this Plan), this HMP was organized in accordance with FEMA and NYS DHSES guidance. The structure of this plan follows the four-phase planning process recommended by FEMA, which is summarized in Figure 1-2.

Figure 1-2. Genesee County Hazard Mitigation Planning Process





This HMP is organized into two volumes: Volume I includes all information that applies to the entire planning area (Genesee County), and Volume II includes information specific to the participating jurisdictions within the County.

Volume I of this HMP includes the sections listed below:

Section 1: Introduction: Overview of participants and planning process.

Section 2: Plan Adoption: Information regarding the adoption of the plan by Genesee County and each participating jurisdiction.

Section 3: Planning Process: Description of the plan methodology and development process, Planning Partnership and stakeholder involvement efforts, and the methods used to incorporate this HMP into existing programs.

Section 4: County Profile: Overview of Genesee County, including (1) general information, (2) economy, (3) land-use trends, (4) population and demographics, (5) general building stock inventory, and (6) critical facilities.

Section 5: Risk Assessment: Documentation of the hazard identification and hazard risk ranking process, hazard profiles, and findings of the vulnerability assessment (estimates of the impact of hazard events on life, safety, and health; general building stock; critical facilities; and the economy). Also included in this section is a description of the status of local data and planned steps to improve local data to support mitigation planning.

Section 6: Mitigation Strategies: Information regarding the mitigation goals and objectives identified by the Steering Committee in response to priority hazards of concern and the process by which county and local mitigation strategies have been developed or updated.

Section 7: Plan Maintenance Procedures: The system established by Genesee County to continue to monitor, evaluate, maintain, and update the HMP.

Appendix A: Sample Adoption Resolution: A sample resolution for each municipality to enact to adopt the HMP.

Appendix B: Meeting Documentation: Includes agendas, attendance sheets, minutes, and other documentation (as available and applicable) of planning meetings convened during the development of the plan.

Appendix C: Stakeholder and Public Outreach Documentation: Documentation of the public and stakeholder outreach effort including webpages, informational materials, public and stakeholder meetings and presentations, surveys, and other methods used to receive and incorporate public and stakeholder comments, and use those comments in the plan update process.

Appendix D: Action Worksheet Template and Instructions

Appendix E: Plan Review Tools: Includes examples of plan review templates available to support annual plan review, including the plan review document used for the 2008 Genesee County HMP review process, and example FEMA Guidance Worksheets (FEMA 386-4).

Appendix F: Participation Matrix: A matrix is presented to give a broad overview of who attended meetings and when input was provided to the HMP update.



Appendix G: Critical Facilities: Includes an inventory of all critical facilities within the County, with name, address, and facility type.

Volume II of this HMP includes the sections listed below:

Section 8: Planning Partnership: Description of the Planning Partnership and jurisdictional annexes.

Section 9: Jurisdictional Annexes: A jurisdiction-specific annex for Genesee County and each participating jurisdiction containing their hazards of concern, hazard risk ranking, capability assessments, mitigation actions, action prioritization specific only to Genesee County or that jurisdiction, progress on prior mitigation activities identified in the 2008 plan (as applicable), and a discussion of prior local hazard mitigation plan integration into local planning processes.

1.3 PLAN UPDATE – WHAT IS DIFFERENT?

Genesee County’s initial HMP was initially approved by FEMA and adopted by participating jurisdictions in 2008. The 2019 update builds on the 2008 plan and specifically includes the following changes or enhancements. This plan differed from its predecessor for a variety of reasons:

- This plan was prepared in accordance with the 2017 NYS DHSES guidance which provided a framework for a more concise and focused mitigation plan.
- Updated data and tools provided for a more detailed and accurate risk assessment. The risk assessment was prepared to better support future grant applications by providing risk and vulnerability information that would directly support the measurement of “cost-effectiveness” required under FEMA mitigation grant programs.
- The plan identified implementable actions rather than strategies, with enough information to serve as the basis for policy and funding decisions and represent measurable impacts on resiliency and mitigation progress. Strategies provide direction, but actions are fundable under grant programs.