

EXECUTIVE SUMMARY

The Cayuga County Multi-Jurisdictional Hazard Mitigation Plan (HMP) was prepared in response to the Disaster Mitigation Act of 2000 (DMA 2000). DMA 2000 requires states and local governments to prepare all hazard mitigation plans and formally update them every five years in order to remain eligible to receive pre-disaster mitigation funds that are made available in the wake of federally-declared disasters. **To restate, by not participating in this process and/or adopting the resulting plan, the municipalities will not be eligible to receive future pre-disaster mitigation funding for eligible mitigation projects (e.g. structural acquisitions and elevations, retrofits of critical infrastructure).** It is also important to remember that pre-disaster mitigation funds are separate and distinct from those federal and state funds used in direct post-disaster relief. The availability of those funds remains unchanged; if there is a federally-declared disaster in Cayuga County, the affected municipalities will still receive immediate recovery assistance regardless of their participation in this plan.

The **Federal Emergency Management Agency (FEMA)** estimates that for every dollar spent on damage prevention (mitigation), twice that amount is saved through avoided post-disaster damage repair.

However, DMA 2000 effectively improves the disaster planning process by increasing hazard mitigation planning requirements for hazard events and requiring participating municipalities to document their hazard mitigation planning process and to identify hazards, potential losses, and mitigation needs, goals, and strategies.

Cayuga County Planning Process

DMA 2000 requires states to submit comprehensive Hazard Mitigation Plans for approval to the Federal Emergency Management Agency (FEMA) to be eligible for future pre-disaster mitigation funding. Local entities must also develop plans and formally update them every five years. This current effort marks Cayuga County’s first venture into HMP development. Cayuga County and all jurisdictions therein (with the exception of the Town of Cato) actively participated in the planning process, and will work to implement the mitigation strategies identified in the plan in an effort to reduce their vulnerability to hazards.

Jurisdictions		
City of Auburn	Town of Ira	Town of Scipio
Town of Aurelius	Town of Ledyard	Town of Sempronius
Village of Aurora	Town of Locke	Town of Sennett
Town of Brutus	Town of Mentz	Town of Springport
Town of Cato*	Village of Meridian	Town of Sterling
Village of Cato	Town of Montezuma	Town of Summerhill
Village of Cayuga	Town of Moravia	Town of Throop
Town of Conquest	Village of Moravia	Village of Union Springs
Village of Fair Haven	Town of Niles	Town of Venice
Town of Fleming	Town of Owasco	Town of Victory
Town of Genoa	Village of Port Byron	Village of Weedsport

*Town has indicated that it will not be participating in the plan.

To support the planning process for this plan, Cayuga County and municipalities accomplished the following:

- Developed a municipal planning partnership including all participating municipalities in Cayuga County;
- Established and authorized a Steering Committee to support the planning process;
- Identified the hazards of concern;
- Developed the hazard profiles, including specific historical and recent events and losses;
- Developed the estimate of inventory at risk and potential losses associated with these hazards;
- Developed mitigation goals, objectives and actions that specifically address the hazards impacting the area;
- Developed the mitigation plan maintenance procedures to be executed upon approval of the plan by the New York State Office of Emergency Management (NYSOEM) and FEMA.

As required by DMA 2000, Cayuga County has informed the public about these efforts and provided opportunities for public comment and input on the planning process. In addition, numerous agencies and stakeholders were contacted and some have participated as core or support members to provide input and expertise to Cayuga County's mitigation planning efforts.

Cayuga County and all participating jurisdictions intend to incorporate mitigation planning as an integral component of daily government operations through existing processes and programs. The Draft Plan is posted on the Cayuga County website and all participating municipalities have made an effort to promote public review and input to the plan. Updates to the plan will be similarly announced for annual plan reviews and subsequent 5-year updates.

Cayuga County Hazard Mitigation Plan Adoption

This mitigation plan will be reviewed and adopted by the elected officials of all participating jurisdictions.

Cayuga County Profile

Cayuga County is located in the west central part of the state, in the Finger Lakes region. Waterbodies in and around Cayuga County are its most defining characteristics, with Owasco Lake in the center of Cayuga County, Cayuga Lake forming part of the western boundary of Cayuga County, Lake Ontario on the northern border, and Skaneateles Lake and Cross Lake forming part of the eastern border. Cayuga County is made up of 33 municipalities (one city, 23 towns, and nine villages) and encompasses an area of approximately 734 square miles (Cayuga County, 2010).

Cayuga County is primarily an urban-rural community, with 47 percent of residents living in urban clusters, and the remaining 53 percent residing in the rural farm or non-farm areas which comprise nearly 54 percent of Cayuga County's total land area. The City of Auburn is the major business and population center of Cayuga County, with a density of 3,400 residents per square mile (Cayuga County and the City of Auburn, 2009). This combination of urban and rural development in addition to natural characteristics found throughout Cayuga County lays the foundation for Cayuga County's vulnerability to natural, human-caused, and technological hazards, both in terms of hazard frequency and the potential impact of hazard events.

The Cayuga County HMP provides a general overview of current and anticipated population and land use within the study area. This information provides a basis for making decisions regarding the type of

mitigation approaches to consider and the locations in which these approaches should be applied. This information can also be used to support decisions regarding future development in vulnerable areas. For potential increases in vulnerability, Cayuga County and municipalities can plan ahead to mitigate those vulnerabilities early in the development process or can direct development to areas of lower risk. The participating jurisdictions will revisit this mitigation plan regularly to ensure that mitigation actions are implemented in order to minimize risk and vulnerability to future natural hazard events.

Risk Assessment

A key component of a mitigation plan is the accurate identification of risks posed by a hazard and the corresponding impacts to the community. The process of identifying hazards of concern, profiling hazard events, and conducting a vulnerability assessment is known as a risk assessment. The risk assessment portion of the mitigation planning process included the steps shown in Figure ES-1. Each of these steps is summarized below.

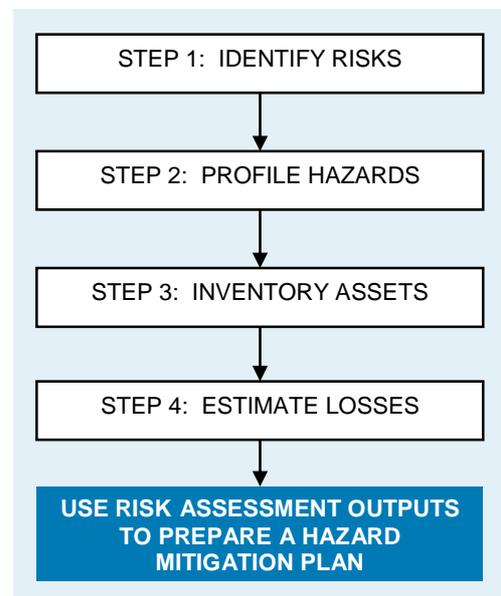
Step 1: The first step of the risk assessment process is to identify the hazards of concern. FEMA’s current regulations only require an evaluation of natural hazards. Natural hazards are natural events that threaten lives, property, and many other assets. Often, natural hazards can be predicted, where they tend to occur repeatedly in the same geographical locations because they are related to weather patterns or physical characteristics of an area. While the current regulations do not require the consideration of man-made hazards, such hazards can be included in HMPs as deemed appropriate by the Steering Committee to provide a more comprehensive and relevant plan for Cayuga County.

The Steering Committee focused on a full range of natural and man-made hazards that could impact the area, and then identified and ranked those hazards that presented the greatest concern. Based on a review of all available information, including the HAZNY rating, the following hazards of concern were selected to be addressed within this plan:

- Flooding (riverine, flash, lakeshore, ice jam, and dam)
- Severe Storm (windstorms, thunderstorms, hail, tornadoes and hurricanes/tropical storms)
- Winter Storm (heavy snow, blizzards, ice storms, Nor’Easters)
- Ground Failure (landslide, subsidence, coastal erosion)
- Transportation Hazards

Step 2: The next step of the risk assessment is to prepare a profile for each hazard of concern. These profiles assist communities in evaluating and comparing the hazards that can impact their area. Each type of hazard has unique characteristics that vary from event to event. That is, the impacts associated with a specific hazard can vary depending on the magnitude and location of each event (a hazard event is a specific, uninterrupted occurrence of a particular type of hazard). Further, the probability of occurrence of a hazard in a given location impacts the priority assigned to that hazard. Finally, each hazard will impact different communities in different ways, based on geography, local development, population

Figure ES-1. Risk Assessment Process



distribution, age of buildings, and mitigation measures already implemented. Hazard event and loss data and information are integrated into this plan.

Steps 3 and 4: To understand risk, a community must evaluate what assets they possess and which are exposed or vulnerable to the identified hazards of concern. Hazard profile information combined with data regarding population, demographics, general building stock, and critical facilities at risk prepares the community to develop risk scenarios and estimate potential damages and losses for each hazard.

For this risk assessment, loss estimates and exposure calculations rely on the best available data and methodologies. HAZUS-MH 2.0, a FEMA-developed GIS-based risk assessment tool, was used to estimate losses from various hazards. Estimated losses for the 100- and 500-year (1% and 0.2%) flood are shown in Table ES-1, below.

ES-1. Summary of 100- and 500-year (1% and 0.2%) General Building Stock Losses (Buildings and Contents)

Municipality	Flood 1%	Flood .2%	Municipality	Flood 1%	Flood .2%
Auburn (C)	\$1,773,446	\$2,832,370	Moravia (T)	\$511,301	\$788,870
Aurelius (T)	\$890,558	\$1,446,168	Moravia (V)	\$5,027,030	\$7,881,622
Aurora (V)	\$60,503	\$119,487	Niles (T)	\$331,688	\$404,598
Brutus (T)	\$1,905,030	\$2,176,840	Owasco (T)	\$857,644	\$1,302,814
Cato (T)	\$3,998,191	\$4,718,340	Port Byron (V)	\$169,922	\$311,120
Cato (V)	\$0	\$956	Scipio (T)	\$92,682	\$171,176
Cayuga (V)	\$89,792	\$178,004	Sempronius (T)	\$46,605	\$49,083
Conquest (T)	\$669,613	\$896,903	Sennett (T)	\$510,188	\$632,542
Fair Haven (V)	\$63,247	\$78,175	Springport (T)	\$469,769	\$712,305
Fleming (T)	\$2,691,781	\$3,468,337	Sterling (T)	\$202,947	\$252,197
Genoa (T)	\$156,769	\$286,969	Summerhill (T)	\$170,290	\$197,502
Ira (T)	\$113,543	\$147,308	Throop (T)	\$360,757	\$462,809
Ledyard (T)	\$148,186	\$204,573	Union Springs (V)	\$362,807	\$1,740,599
Locke (T)	\$611,042	\$815,998	Venice (T)	\$194,735	\$244,110
Mentz (T)	\$232,933	\$260,326	Victory (T)	\$221,576	\$100,237
Meridian (V)	\$8,911	\$12,328	Weedsport (V)	\$1,324,260	\$2,001,414
Montezuma (T)	\$381,278	\$740,403	Cayuga County	\$24,649,025	\$35,636,482

Source: HAZUS-MH

Cayuga County Planning Area Mitigation Strategy

The outcomes of the risk assessment, supplemented by Plan participant input, provide a basis to develop mitigation actions, goals, and appropriate local mitigation actions.

Mitigation Planning Goals and Objectives

The Planning Committee identified four goals through a facilitated exercise. These goals were developed to cover the overarching needs and concerns of the planning partnership in addressing natural and transportation hazard risk reduction. These four mitigation goals, which summarize the hazard reduction outcomes the planning area seeks to achieve, are as follows:

- Protect Life and Property
- Increase Public Awareness
- Enhance Disaster Preparedness, Response and Recovery and Promote Mitigation Efforts through Existing Programs and Partnerships
- Protect the Environment and Natural Resources

The mitigation strategy portion of the plan includes:

- A summary and status of past and current mitigation efforts;
- Local hazard mitigation goals and objectives;
- Identification and analysis of mitigation measures and projects being considered;
- Mitigation strategy (goals and objectives);
- Mitigation action plan (summary of specific actions).

Capability Assessment

A capability assessment is an inventory of a community's missions, programs and policies; and an analysis of its capacity to carry them out. This assessment is an integral part of the planning process. It identifies, reviews, and analyzes local and state programs, polices, regulations, funding, and practices currently in place that may either facilitate or hinder mitigation.

A capability assessment was prepared by each planning participant. By completing this assessment, each participant learned how or whether they would be able to implement certain mitigation actions by determining the following:

- The range of local and/or state administrative, programmatic, regulatory, financial and technical resources available to assist in implementing their mitigation actions
- Limitations that may exist on undertaking actions

Identification, Prioritization, Analysis, and Implementation of Mitigation Actions

This plan process was focused on developing Cayuga County and local mitigation strategies, including an objective consideration of each jurisdiction's natural hazard risks and vulnerabilities, and the identification of appropriate projects or initiatives to mitigate those risks. Throughout the planning process, representatives of the Cayuga Emergency Management Office (CEMO) and the Cayuga County Department of Planning and Economic Development (CCDPED) worked directly with each jurisdiction to assist with the development of their mitigation strategies, focused on identifying well-defined, implementable projects with a careful consideration of benefits (risk reduction, losses avoided), costs, and possible funding sources (including mitigation grant programs). Each participant identified appropriate local mitigation actions, along with the hazards mitigated, goals and objectives met, lead agency, estimated cost, potential funding sources, and the proposed timeline.

Plan Maintenance Procedures

Hazard mitigation planning is an ongoing process. This plan presents procedures for plan maintenance and future updates through which the CCEMO, CCDPED, and Steering Committee will continue to support the implementation and maintenance of this plan.

Cayuga County has made a concerted effort over the years prior to developing this hazard mitigation plan to address the reduction of vulnerability to hazards in its planning and in its daily operations. These projects, programs, and regulations have reduced risk to natural hazards and form the basis of the goals and objectives of this plan, and will more effectively do so as the mitigation policies contained in this plan are implemented across Cayuga County. Therefore, it is the intent of the County and its participating municipalities to strengthen this focus on mitigation by incorporating the goals of the plan into ongoing planning, zoning, building, and engineering activities.

To monitor implementation of the mitigation plan, the Steering Committee members will meet annually to discuss the status of plan implementation and will prepare a summary report of the plan status and any needed updates. The mitigation evaluation will address changes as new hazard events occur, as the area develops, and as more is learned about hazards and their impacts. The evaluation will include an assessment of whether the planning process and actions have been effective, whether development or other issues warrant changes to the plan or its priorities, if the communities' goals are being reached, and whether changes are warranted. In addition, the mitigation plan will be updated at a minimum within the 5-year cycle specified by DMA 2000.

Point of Contact

To request information or provide comments regarding this plan, please contact the Cayuga County Department of Emergency Management:

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