

SECTION 6: MITIGATION STRATEGIES

This section presents mitigation actions for Cayuga County to reduce potential exposure and losses identified as concerns in the Risk Assessment portion of this plan. The Planning Committee reviewed the Risk Assessment to identify and develop these mitigation actions, which are presented herein.

This section includes:

- (1) Background and past mitigation accomplishments
- (2) General mitigation planning approach
- (3) Plan mitigation goals and objectives and an explanation of the Goals and Objectives process
- (4) Identification, analysis, and prioritization guidelines for potential mitigation actions

Hazard mitigation reduces the potential impacts of, and costs associated with, emergency and disaster-related events. Mitigation actions address a range of impacts, including impacts on the population, property, the economy, and the environment.

Mitigation actions can include activities such as: revisions to land-use planning, training and education, and structural and nonstructural safety measures.

BACKGROUND AND PAST ACCOMPLISHMENTS

In accordance with DMA 2000 requirements, a discussion regarding past mitigation activities and an overview of past efforts is provided as a foundation for understanding the mitigation goals, objectives, and activities outlined in this Plan. Cayuga County, through previous and ongoing hazard mitigation activities, has demonstrated that it is pro-active in protecting its physical assets and citizens against losses from natural hazards.

All jurisdictions participating in this Plan participate in the NFIP, which requires the adoption of FEMA floodplain mapping and certain minimum construction standards for building within the floodplain.

Cayuga County has been pro-active in planning and implementing mitigation projects to reduce the flood vulnerability of targeted floodprone areas. Recent examples of mitigation projects include the water supply protection berm in Genoa (Figure 6-1), the stormwater retention pond in the Town of Moravia (Figure 6-2), the Mill Street Bridge in Port Byron (Figures 6-3 and 6-4), and the Green Street Bridge in Port Byron (Figures 6-5 and 6-6).

Figure 6-1: Berm to Protect Water Supply in Genoa, NY (before mitigation) and Figure 6-2: Stormwater Retention Pond, Moravia, NY



Source: Cayuga County Planning and Economic Development (2013)

Figure 6-3: Mill St. Bridge (before mitigation) and Figure 6-4: Mill St. Bridge (after mitigation)



Source: Cayuga County Planning and Economic Development (2013)

Figure 6.5: Green Street Bridge (before Mitigation) and Figure 6-6: Green Street Bridge (after Mitigation)



Source: Cayuga County Planning and Economic Development (2013)

SECTION 6: MITIGATION STRATEGY

A list of mitigation projects implemented in Cayuga County with the funding source is provided in Table 6-1, below.

Table 6-1. Past Mitigation Projects

Disaster	Lead Agency	Project Description	Funding
January 1996	Genoa	Added third culvert on Weeks Road	FEMA 406
January 1996	Summerhill	Fillmore Gulf Road, piped 600 feet	FEMA 406
January 1996	Genoa	Berm to protect water supply	FEMA hazard mitigation grant
January 1996	SWCD	Removed RR pier in Port Byron	FEMA hazard mitigation grant
January 1996	SWCD	Locke and Moravia rip rap plus drainage improvements	FEMA hazard mitigation grant
January 1996	Town of Moravia	Storm water pond #2	FEMA hazard mitigation grant
January 1996	Village of Moravia	Storm water pond #1	Village
September 1998	County	Green Street Bridge in Port Byron	HUD DRI Grant
September 1998	County	Town of Moravia storm water pond #2	HUD DRI grant
April 2003	Mentz	Sperry Road rip rap	FEMA 406
April 2003	Auburn	Washington St. channel improvements	FEMA hazard mitigation grant
April 2005	Mentz	Mill Street Bridge in Port Byron	FEMA 406
N/A	New York State	Replaced bridges on pilings with freespans over Owasco River (2)	NYS Thruway Authority, 2002-2004
N/A	New York State	County-wide FIRM map modernization	NYS, FEMA, County, 2004-2007
N/A	County	911-Emergency Communication System Upgrade	County 2010-2013

Source: Cayuga County Planning and Economic Development (2013)

Notes: SWCD-Cayuga County Soil & Water Conservation District

These past and ongoing activities have contributed to Cayuga County's understanding of its hazard preparedness and future mitigation activity needs, costs, and benefits. These efforts provide a foundation for the Planning Committee to use in developing this HMP.

GENERAL MITIGATION PLANNING APPROACH

The general mitigation planning approach used to develop this plan is based on the FEMA publication, *Developing the Mitigation Plan: Identifying Mitigation Actions and Implementing Strategies* (FEMA 386-3) and input provided by NYSOEM. The FEMA document and NYSOEM guidance include four steps, which were used to support mitigation planning. These steps are summarized below and presented in more detail in the following sections.

- Develop mitigation goals and objectives:** Mitigation goals were developed using the hazard characteristics, inventory, and findings of the risk assessment, and through the results of the public outreach program. By reviewing these outputs and other municipal policy documents, objectives tying to these overarching goals were identified and characterized into similar themes.
- Identify and prioritize mitigation actions:** Based on the risk assessment outputs, the mitigation goals and objectives, existing literature and resources, and input from the participating entities, alternative mitigation actions were identified. The potential mitigation actions were qualitatively evaluated against the mitigation goals and objectives and other evaluation criteria. They were then prioritized into three categories: high, medium, and low.
- Prepare an implementation strategy:** High priority mitigation actions are recommended for first consideration for implementation, as discussed under each hazard description in the following sections. However, based on community-specific needs and goals and available funding and costs, some low or medium priority mitigation actions may also be addressed or could be addressed before some of the high priority actions.
- Document the mitigation planning process:** The mitigation planning process is documented throughout this Plan.

FEMA defines **Goals** as general guidelines that explain what should be achieved. Goals are usually broad, long-term, policy statements, and represent a global vision.

FEMA defines **Objectives** as strategies or implementation steps to attain mitigation goals. Unlike goals, objectives are specific and measurable, where feasible.

FEMA defines **Mitigation Actions** as specific actions that help to achieve the mitigation goals and objectives.

Guiding Principle, Mitigation Goals and Objectives

This section presents the guiding principle for this Plan, and mitigation goals and objectives identified to reduce or avoid long-term vulnerabilities to the identified hazards.

Mission Statement

Per FEMA guidance (386-1), a mission statement or guiding principle describes the overall duty and purpose of the planning process, and serves to identify the principle message of the plan. It focuses or constrains the range of goals and objectives identified. This is not a goal because it does not describe outcomes. Cayuga County's mission statement is broad in scope, and provides a direction for the Plan.

The mission statement for the Cayuga County Plan is as follows:

The mission of the Cayuga County Multi-Jurisdictional All-Hazard Mitigation Plan is to identify and reduce, through cost-effective and sustainable mitigation efforts, our vulnerability to natural and man-made hazards. In doing so, Cayuga County seeks to create an informed and prepared community while protecting its health, safety, property, economy, quality of life, and environment.

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.” The Planning Committee developed mitigation goals and objectives based on the risk assessment results, discussions, research, and input from amongst the committee, existing authorities, policies, programs, resources, stakeholders and the public.

The Planning Committee identified four goals through a facilitated exercise. Once the goals were established, objectives that meet multiple goals were selected through a similar facilitated exercise. For the purposes of this Plan, goals are defined as follows:

Goals are general guidelines that explain what is to be achieved. They are usually broad, long-term, policy-type statements and represent global visions. Goals help define the benefits that the Plan is trying to achieve. The success of the Plan, once implemented, should be measured by the degree to which its goals have been met (that is, by the actual benefits in terms of hazard mitigation).

Cayuga County goals are compatible with the needs and goals expressed in other available community planning documents as well as the NYS HMP. The planning documents reviewed to develop Cayuga County’s goals and ensure they are reasonably in-line with goals established in other related planning documents and mechanisms include:

- New York State Basic Hazard Mitigation Plan
- City of Auburn and Cayuga County Comprehensive Sustainable Energy and Development Plan
- City of Auburn Comprehensive Plan
- Cayuga County Land Use Plan
- Cayuga County Water Management Agency Annual Plan
- Cayuga Lake Watershed Restoration and Protection Plan
- Cayuga County Soil and Water Conservation Plan, Annual Report
- Town of Aurelius Comprehensive Plan
- Town of Aurelius Agricultural and Farmland Protection Plan
- Town of Brutus Agricultural and Farmland Protection Plan
- The Town of Ira and Cato Joint Community Comprehensive Plan
- Town of Cato Plan for Agriculture and Farmland Protection
- Town of Fleming Comprehensive Plan Addendum
- Town of Genoa Comprehensive Plan Survey
- Town of Ira Local Law for Flood Damage Prevention
- Town of Ledyard Vision, Goals & Objectives
- Owasco Lake Watershed Management Plan
- Town of Owasco Comprehensive Plan
- Town of Springport Visioning Plan
- Town of Sterling/Village of Fair Haven Comprehensive Plan
- Town of Victory Draft Comprehensive Plan
- Village of Meridian Comprehensive Plan
- Village of Union Springs Comprehensive Plan
- Lake Como State of the Lake & Watershed Management Plan
- Duck Lake State of the Lake & Watershed Management Plan
- Skaneateles Lake Watershed Management Plan

Each goal has a number of corresponding objectives that further define the specific actions or implementation steps. Achievement of these goals will define the effectiveness of a mitigation strategy. The goals also are used to help establish priorities.

Objectives were then developed and/or selected by the Planning Committee through its knowledge of the local area, review of past efforts, findings of the risk assessment, qualitative evaluations, and identification of mitigation options. The objectives are used to 1) measure the success of the Plan once implemented, and 2) to help prioritize identified mitigation actions. For the purposes of this Plan, objectives are defined as follows:

Objectives are short-term aims which, when combined, form a strategy or course of action to meet a goal. Unlike goals, objectives are specific and measurable.

The Planning Committee selected objectives that would meet multiple goals. The objectives serve as a stand-alone measurement of a mitigation action, rather than as a subset of a goal. Achievement of the objectives will be a measure of the effectiveness of a mitigation strategy. The objectives also are used to help establish priorities.

The four mitigation goals with their respective objectives are presented below:

Goal 1. Protect Life and Property

- *Objective 1-1:* Protect the ongoing operation of critical facilities and infrastructure.
- *Objective 1-2:* Retrofit, purchase or relocate repetitive and severe repetitive loss assets in Cayuga County.
- *Objective 1-3:* Encourage the establishment of policies to help ensure the prioritization and implementation of mitigation actions and/or projects designed to benefit essential facilities, services, and infrastructure.
- *Objective 1-4:* Implement mitigation actions that enhance the capabilities of Cayuga County to better profile and assess exposure of hazards.
- *Objective 1-5:* Better characterize flood/stormwater hazard events by conducting additional hazard studies and identify inadequate stormwater facilities and poorly drained areas and maintain or improve drainage or flood control systems.
- *Objective 1-6:* Develop, maintain, strengthen and promote enforcement of ordinances, regulations, plans and other mechanisms that facilitate hazard mitigation and result in a higher level of natural hazard risk reduction.
- *Objective 1-7:* Ensure that development is done according to modern and appropriate standards, including the consideration of natural hazard risk.
- *Objective 1-8:* Identify and pursue funding opportunities to develop and implement local mitigation activities.
- *Objective 1-9:* Address the specific needs of vulnerable populations.

Goal 2. Increase Public Awareness and Preparedness

- *Objective 2-1:* Develop and implement program(s) to better understand the public's level of individual and household preparedness.
- *Objective 2-2:* Develop and implement additional education and outreach programs to increase public awareness of hazard areas and the risks associated with hazards, and to educate the public on specific, individual preparedness activities.
- *Objective 2-3:* Promote awareness among homeowners, renters, and businesses about obtaining insurance coverage available for natural hazards (i.e., flooding).
- *Objective 2-4:* Develop and implement programs to inform vulnerable property owners of appropriate mitigation activities and available funding programs.
- *Objective 2-5:* Provide information on tools, partnership opportunities, funding resources, and current government initiatives to assist in implementing mitigation activities.

Goal 3. Enhance Disaster Preparedness, Response and Recovery and Promote Mitigation Efforts through Existing Programs and Partnerships

- *Objective 3-1:* Encourage the establishment of policies to help ensure the prioritization and implementation of mitigation actions and/or projects designed to benefit essential facilities, services, and infrastructure.
- *Objective 3-2:* Where appropriate, coordinate and integrate hazard mitigation actions with existing local emergency operations plans.
- *Objective 3-3:* Identify the need for, and acquire, any special emergency services, training, equipment, facilities and infrastructure to enhance response capabilities for specific hazards.
- *Objective 3-4:* Review and improve, if necessary, emergency traffic routes; communicate such routes to the public and communities.
- *Objective 3-5:* Ensure continuity of governmental operations, emergency services, and essential facilities at the local level during and immediately after disaster and hazard events.
- *Objective 3-6:* Maintain and expand shared services in acquiring maintaining and providing emergency services and equipment.
- *Objective 3-7:* Strengthen inter-jurisdiction and interagency communication, coordination, and partnerships to foster hazard mitigation actions or projects.

Goal 4. Protect the Environment and Natural Resources

- *Objective 4-1:* Protect, preserve, and restore natural lands and features (including environmentally sensitive and critical areas) that serve to mitigate losses (including wetlands, floodplains, stream corridors, hillsides and ridge lines). Such lands should be clearly mapped and identified for protection.

- *Objective 4-2:* Continue to preserve, protect, and acquire open space, and environmentally sensitive and critical areas, particularly in high hazard areas. Include hazard considerations into the prioritization schema for land acquisition.
- *Objective 4-3:* Incorporate hazard considerations into land-use planning and natural resource management and encourage hazard mitigation measures that result in the least adverse effect on the natural environment.
- *Objective 4-4:* Work with Cayuga County Soil and Water Conservation District and other organizations towards the restoration of stream corridors and the implementation of erosion and sedimentation control measures.

Capability Assessment

According to FEMA 386-3, 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, policies, regulations, funding and practices currently in place that may either facilitate or hinder mitigation.

During the plan development process, Cayuga County and all participating municipalities were surveyed to provide an assessment of their mitigation capabilities. The capability assessments are presented in Section 9, Volume II of this Plan. By completing this assessment, Cayuga County and each jurisdiction learned how or whether they would be able to implement certain mitigation actions by determining the following:

- Types of mitigation actions that may be prohibited by law;
- Limitations that may exist on undertaking actions; and
- The range of local and/or state administrative, programmatic, regulatory, financial and technical resources available to assist in implementing their mitigation actions.
- Action is currently outside the scope of capabilities (funding)
- The jurisdiction is not vulnerable to the hazard
- Action is already being implemented

County and municipal capabilities in the areas of planning and regulatory, administrative and technical, and fiscal may be found in Tables E1, E2 and E3, respectively, in their jurisdictional annexes in Section 9.

Planning and regulatory programs available to promote and support mitigation and risk reduction in Cayuga County and how this plan integrates with these planning and regulatory mechanisms may be found in Section 3 under "Coordination with Existing Plans and Programs" and "Integration of Different Data and Plans into Mitigation Plan" and Section 7, "Integration of Mitigation Plan through Existing Programs."

Identification, Prioritization, Analysis, and Implementation of Mitigation Actions

This subsection discusses the identification, prioritization, analysis and implementation of mitigation actions for Cayuga County.

Strengths, Weaknesses, Opportunities and Obstacles (SWOO)

On December 5, 2012, a Strengths, Weaknesses, Opportunities, and Obstacles (SWOO) session was held with the Planning Committee and stakeholders. The purpose of this session was to review information garnered from the risk assessment and the public involvement strategy to identify strengths, weaknesses, opportunities and obstacles in hazard mitigation within Cayuga County through a facilitated brainstorming session on risks, vulnerabilities, and capabilities. All information shared during this session was recorded and used to prepare catalogs of mitigation alternatives to be used by the Planning Committee in preparing their individual jurisdictional annexes. Many of the strategies (such as community outreach) identified in the catalogs could be applied to multiple hazards. This Plan identifies strategies for multiple hazards for Cayuga County and in each jurisdictional annex for participating jurisdictions (Section 9).

In order to incorporate comprehensive stakeholder input, the Planning Committee elicited input from a wide range of stakeholders in attendance at the SWOO, including town and village representatives as well as the representatives of the agencies listed in table 6-2 below. For a complete list of the SWOO attendees, see Section 3 of this plan.

Table 6-2 Agencies/Stakeholders

Agency/Stakeholder
American Red Cross
New York State Police
Cayuga County Soil and Water Conservation District
Cayuga Onondaga Board of Cooperative Educational Services (BOCES)
Auburn Community Hospital
Cayuga County Health Department
Cayuga County Emergency Management Office
Cayuga County Sheriff's Office (CCSO)
Cayuga County Planning and Economic Development Office
Cornell Cooperative Extension of Cayuga County

The Planning Committee then generated a comprehensive catalog of mitigation actions (see Appendix D) to be considered that met the following objectives:

- Use information obtained from the public involvement strategy;
- Use information provided in the risk assessment;
- Seek mitigation actions consistent with the goals and objectives for the Cayuga County Plan;
- Create catalogs of mitigation actions to be used as a tool by the Planning Committee in selection of mitigation actions.

Catalogs of Mitigation Actions

Based on information gathered during the SWOO session, catalogs of mitigation actions were created that list initiatives that could manipulate the hazard, reduce exposure to the hazard, reduce vulnerability to the hazard, and increase the Planning Committee’s ability to respond to or be prepared for a hazard (Appendix D). These catalogs are separated by responsibility for implementation (i.e., who would most likely implement the initiative: personal property owners, private sector business, or government). The hazards addressed by the catalogs were deemed to be those to which the planning area is most vulnerable based on the risk assessment.

The catalogs are not meant to be exhaustive or site-specific but rather to inspire thought and provide members of the Planning Committee a baseline of initiatives backed by a planning process, consistent with the goals and objectives of the planning area, and within the capabilities of the Partners. The Planning Committee was not bound to these actions. They could have added to the catalogs if an action was not included. Actions in the catalogs that were not selected by the Partners in their jurisdictional annexes were not selected based on the following:

- Action is currently outside the scope of capabilities (funding)
- The jurisdiction is not vulnerable to the hazard
- Action is already being implemented

This plan development process was focused on improving Cayuga County and local mitigation strategies.

All municipalities were provided worksheets (“Municipal Information Worksheet,” “Hazards of Concern,” and “Municipal Events and Losses”) to assist in identifying local vulnerabilities, and mitigation activities both ongoing and potential/proposed.

In addition, each municipality was provided with a Capability Assessment survey form to assist in identifying their local mitigation capabilities (see previous section).

Throughout the planning process, Cayuga County and municipalities were encouraged to carefully consider their natural hazard risks and vulnerabilities, and to identify appropriate projects or initiatives to mitigate those risks. Potential mitigation actions, projects or initiatives became evident during the plan development process, as part of the risk assessment and as identified through the public and stakeholder outreach process. Communities were made aware of these either through direct communication (local support meetings, email, and phone) or via their draft municipal annexes.

Municipalities were provided with “Project Capture Worksheets” to facilitate the gathering of additional information on each potential project, including additional project description, estimated cost, potential benefits, responsible agency/department, and timeline.

All proposed mitigation actions were identified in relation to the goals and objectives presented above. The mitigation actions include a range of options in line with the six types of mitigation actions described in FEMA guidance (FEMA 386-3), including:

- 1. Prevention:** Government, administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- 2. Property Protection:** Actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- 3. Public Education and Awareness:** Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and school-age and adult education programs.

4. **Natural Resource Protection:** Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
5. **Emergency Services:** Actions that protect people and property, during and immediately following, a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities.
6. **Structural Projects:** Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Mitigation Actions

The mitigation actions are the key element of the natural hazards mitigation plan. It is through the implementation of these actions that Cayuga County and the participating jurisdictions can strive to become disaster-resistant through sustainable hazard mitigation. For the purposes of this Plan, mitigation actions are defined as follows:

Mitigation actions are activities designed to reduce or eliminate losses resulting from natural hazards.

Although one of the driving influences for preparing this Plan was grant funding eligibility, its purpose is more than just access to federal funding. It was important to the Planning Committee to look at mitigation actions that will work through all phases of emergency management. Some of the actions outlined in this Plan may not grant eligible—grant eligibility was not the focus of the selection. Rather, the focus was the actions’ effectiveness in achieving the goals of the Plan and whether they are within Cayuga County or each jurisdiction’s capabilities.

A series of mitigation actions were identified by Cayuga County and each participating jurisdiction. These actions are summarized in Section 9, Volume II of this Plan. The consultant, in addition, provided a list of generic initiatives to support good practices to reduce vulnerability to a variety of hazards. These actions have been included to support and supplement the municipal action in the mitigation strategies.

Along with the hazards mitigated, goals and objectives met, lead agency, estimated cost, potential funding sources and the proposed timeline are identified. The parameters for the timeline are as follows:

- Short Term = To be completed in 1 to 5 years
- Long Term = To be completed in greater than 5 years
- Ongoing = Currently being funded and implemented under existing programs.

Prioritization

Section 201.c.3.iii of 44 CFR requires an action plan describing how the actions identified will be prioritized. The Cayuga County Planning Committee, along with their contract consultant, developed a prioritization methodology for the Plan that meets the needs of Cayuga County and participating jurisdictions while at the same time meeting the requirements of Section 201.6 of 44 CFR. The mitigation actions identified were prioritized according to the criteria defined below.

- **High Priority:** A project that meets multiple plan goals and objectives, benefits exceed cost, has funding secured under existing programs or authorizations, or is grant-eligible, and can be completed in 1 to 5 years (short-term project) once project is funded.
- **Medium Priority:** A project that meets at least one plan goal and objective, benefits exceed costs, funding has not been secured and would require a special funding authorization under existing programs, grant eligibility is questionable, and can be completed in 1 to 5 years once project is funded.
- **Low Priority:** A project that will mitigate the risk of a hazard, benefits exceed costs, funding has not been secured, and project is not grant-eligible and/or timeline for completion is considered long-term (5 to 10 years).

It should be noted that these priority definitions are considered to be dynamic and can change from one category to another based on changes to a parameter such as availability of funding. For example, a project might be assigned a medium priority because of the uncertainty of a funding source. This priority could be changed to high once a funding source has been identified such as a grant. The prioritization schedule for this Plan will be reviewed and updated as needed annually through the plan maintenance strategy described in Section 6 of this Plan.

Benefit/Cost Review

Section 201.6.c.3iii of 44CFR requires the prioritization of the action plan to emphasize the extent to which benefits are maximized according to a cost/benefit review of the proposed projects and their associated costs. Cayuga County was asked to weigh the estimated benefits of a project versus the estimated costs to establish a parameter to be used in the prioritization of a project, utilizing the same parameters used by each of the participating jurisdictions as outlined in Volume II of this Plan.

This benefit/cost review was qualitative; that is, it did not include the level of detail required by FEMA for project grant eligibility under the Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation (PDM) grant program. This qualitative approach was used because projects may not be implemented for up to 10 years, and the associated costs and benefits could change dramatically in that time. Each project was assessed by assigning subjective ratings (high, medium, and low) to its costs and benefits, described in Table 6-3:

Table 6-3 Cost and Benefit Definitions

Costs	
High	Existing funding levels are not adequate to cover the costs of the proposed project, and implementation would require an increase in revenue through an alternative source (for example, bonds, grants, and fee increases).
Medium	The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
Low	The project could be funded under the existing budget. The project is part of or can be part of an existing, ongoing program.
Benefits	
High	Project will have an immediate impact on the reduction of risk exposure to life and property.
Medium	Project will have a long-term impact on the reduction of risk exposure to life and property or will provide an immediate reduction in the risk exposure to property.
Low	Long-term benefits of the project are difficult to quantify in the short term.

Using this approach, projects with positive benefit versus cost ratios (such as high over high, high over medium, medium over low, etc.) are considered cost-beneficial and are prioritized accordingly. For many of Cayuga County initiatives identified, Cayuga County may seek financial assistance under FEMA’s HMGP or PDM programs. Both of these programs require detailed benefit/cost analysis as part of the application process. These analyses will be performed when funding applications are prepared, using the FEMA model process. The Planning Committee is committed to implementing mitigation strategies with benefits that exceed costs. For projects not seeking financial assistance from grant programs that require this sort of analysis, the Planning Committee reserves the right to define “benefits” according to parameters that meet its needs and the goals and objectives of this plan.

Using this approach, projects with positive benefit versus cost ratios (such as high over high, high over medium, medium over low, etc.) are considered cost-beneficial and are prioritized accordingly.

The annexes presented in Section 9, Volume II present the results of applying the prioritization methodology presented to the set of mitigation actions identified by Cayuga County and each participating jurisdiction, and includes the following prioritization parameters:

- Number of objectives met by the initiative
- Benefits of the project (high, medium, or low)
- Cost of the project (high, medium, or low)
- Do the benefits equal or exceed the costs?
- Is the project grant-eligible?
- Can the project be funded under existing programs and budgets?
- Priority (high, medium, or low)

The annexes in Section 9, Volume II of this Plan present Cayuga County’s and each participating jurisdiction’s mitigation action implementation strategy including:

- Mitigation actions for individual and multiple hazards

- Mitigation objectives supported by each action. Goals are not listed because all objectives meet multiple goals.
- Implementation priority
- Potential funding sources for the mitigation action (grant programs, current operating budgets or funding, or the agency or jurisdiction that will supply the funding; additional potential funding resources are identified)
- Estimated budget for the mitigation action (financial requirements for new funding or indication that the action is addressed under current operating budgets)
- Time estimated to implement and complete the mitigation action
- Existing policies, programs, and resources to support implementation of the mitigation action (additional policies, programs, and resources identified)

Specific mitigation actions were identified to prevent future losses; however, current funding is not identified for all of these actions at present. As Cayuga County has limited resources to take on new responsibilities or projects, the implementation of these mitigation actions is dependent on the approval of the local elected governing body and the ability of the community to obtain funding from local or outside sources. Where such actions are high priorities, the community will work together with NYSOEM, FEMA and other Federal, State and County agencies to secure funds.

In general, mitigation actions ranked as high priorities will be addressed first. However, medium or even low priority mitigation actions will be considered for concurrent implementation. Therefore, the ranking levels should be considered as a first-cut, preliminary ranking and will evolve based on input from Cayuga County departments and representatives, the public, NYSOEM, and FEMA as the Plan is implemented.

Jurisdictional Annexes

Each jurisdiction participating in the development of the plan (including Cayuga County and all municipalities) has assisted in the authoring of their own annex or chapter to this plan, included in Section 9. One of the key elements of each annex is each jurisdiction's unique mitigation strategy.

As data, information and other input was compiled and received from the municipality, it was input directly into their draft annex. To help support the selection of an appropriate, risk-based mitigation strategy, each annex provided a summary of hazard vulnerabilities identified during the plan development process, either directly by municipal representatives, through review of available county and local plans and reports, and through the hazard profiling and vulnerability assessment process.

Annexes were pre-populated with both specific mitigation actions identified during the course of the plan development, as well as general ("common") initiatives developed during the planning process and included for municipal consideration.

Specific mitigation actions included in the draft municipal annexes included:

- Those specifically identified by the jurisdiction during the course of the planning process;
- Those identified in other relevant county and local plans and reports (e.g. Stream Corridor Management Plans, Highway Management Plans, Capital Plans, local engineering studies, etc.);
- Those identified during the public and stakeholder outreach process (see Section 3); and
- Those that became evident through the hazard profiling and risk/vulnerability assessment effort.

Each draft jurisdictional annex was also pre-populated with a suite of “general” or “common” mitigation initiatives for their consideration and inclusion as appropriate. Throughout the plan development process, and in consideration of federal and state mitigation guidance, the Steering Committee recognized that all municipalities would benefit from the inclusion of certain mitigation initiatives. These include initiatives to address vulnerable public and private properties, including RL and SRL properties; initiatives to support continued and enhanced participation in the NFIP; improved public education and awareness programs; initiatives to build greater local mitigation capabilities; and a commitment to implement and maintain the plan.

All municipalities were asked to thoroughly review these “general” initiatives, and include, amend or delete them as they found appropriate for their jurisdiction.

Integration of Mitigation into Ongoing and Future Planning Mechanisms

As noted earlier in this section, 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 continuing existing policies, and by further implementing the mitigation policies contained in this plan. Implementation actions will include incorporating the goals of the plan into ongoing planning, zoning, building, and engineering activities. Specifically the County will urge municipalities to:

- Fund hazard mitigation projects or actions in operating budgets to the extent possible;
- Evaluate all construction projects to see if they meet the Hazard Mitigation goals and objectives;
- Use data and maps from this plan as supporting documentation in grant applications;
- Ensure local planning board or economic development groups identify hazard areas when assisting new business in finding a location;
- Look at mitigation actions when allocating funding for the municipal budgets;
- Incorporate hazard mitigation actions in daily operations and on all projects;
- Include hazard mitigation when updating municipal ordinances;
- Identify hazard areas in updates of comprehensive plans to identify land use issues; and
- Review the hazard mitigation plan prior to land use or zoning changes, and permitting or development decisions.

In order to support the integration of the Cayuga County All-Hazard Mitigation Plan into municipal processes in the county, Cayuga County will utilize the Cayuga County Planning Board meetings and trainings to educate and urge municipalities to integrate hazard mitigation into their daily operations. The County has chosen this method of outreach as it is an effective way to communicate with key municipal personnel whose responsibilities include the review and implementation of planning, zoning, and municipal codes. In this manner, each municipality will have the advantage of mutual support and feedback in how to implement their mitigation plan.

The first of three training workshops will be developed and held in 2014 to address the implementation of the 2013 plan. This workshop with possible modifications will be repeated in 2016 and 2018. The training will include an overview of hazard mitigation – what it is and how it can reduce hazard vulnerability, a review of the completed in County mitigation projects, a presentation of best practices as noted in FEMA guidance as well as illustrated by successful case studies, and how to specifically integrate hazard mitigation in municipal planning, code enforcement and budgeting. The approved All-

Hazard Mitigation Plan will be amended as towns and villages commit to actions that integrate hazard mitigation into daily operations. An informational copy of any plan amendments will be provided to the DHSES and FEMA on an annual basis.

Cayuga County will utilize the County's New York State General Municipal Law Sections 239-1 and 239-m review process to recommend the integration of hazard mitigation in municipal comprehensive plans. The County's 239 Committee meets monthly and reviews certain local land use actions; including review of all municipal plans prior to adoption.

The County also intends to distribute the workshop syllabus and materials to neighboring communities and to FEMA to enable it to be used on a wider basis to provide an incentive for broader hazard mitigation plan integration in the region.”