

## SECTION 5 - MITIGATION STRATEGIES

This section presents mitigation strategies to reduce the potential exposure and losses identified as concerns in the risk assessment based on the frequency, severity, and impact of each hazard (Section 4). This section presents (1) background and past accomplishments; (2) the general mitigation planning approach; (3) the Town of Clay mitigation goals and objectives; (4) identification, analysis, and implementation of potential mitigation activities for each hazard; (5) multi-hazard mitigation activities; and (6) next steps. This section addresses both mitigation activities that are specific to particular hazard, and approaches that apply to multiple hazards.

### 5.1 Background and Past Accomplishments

Although DMA 2000 does not require a discussion regarding past mitigation activities, an overview of past efforts is provided as a foundation for understanding the mitigation goals, objectives, and activities outlined in this plan. In the past, the Town of Clay, working with various Federal, State and local agencies, have undertaken a number of activities that demonstrate a continued and sustained effort to implement hazard mitigation projects. The following is a partial list of past and on-going hazard mitigation activities in the Town of Clay:

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

*Mitigation activities* can include activities such as: revisions to and enforcement of building codes, revisions to land-use planning, training and education, and structural and nonstructural safety measures.

#### Wind Storms, Snow Storms, Ice Storms, Tornadoes

- The Town of Clay has adopted the International Codes program to ensure public safety by doing property inspections on existing properties for dead or dying trees posing a falling hazard damaging structures and power services.
- The Town of Clay Highway Department, working in conjunction with local power companies, has ongoing programs to trim back and/or remove overgrowth of trees near powerlines, reducing the risk of power outages and other dangers from downed lines.
- The Town of Clay has or will install multiple generators to reduce the impact of power outages.
- The Town of Clay Highway Department inspects drainage ditches to clear falling debris that may block run off of water during large rain events to ensure public safety by eliminate accumulation of excess water that could damage property, road systems and/or cause personal injury from swift water.
- The Town of Clay Highway Department will continue to monitor local Doppler weather system as well as local weather services, using GIS to plot this information to track problem areas for future mitigation projects and to update the public on existing or forecasted events
- The Town of Clay has developed working relationships with OCDEM, SOARC, and OCHD and will continue to participate in tabletop exercises dealing with human needs such as sheltering, evacuations etc. On going training in the ICS and NIMS remains a priority among police, fire, EMS and DPW workers as well as the town executives.
- Working in conjunction with OCDEM and NYSEMO, the Town of Clay will utilize the Emergency Alerting System (EAS) to update and ensure public safety to changing conditions.

### Flooding:

- The Town of Clay Planning and Development, along with the NYSDEC and USACE, are working to improve land management and are actively providing code enforcement along the waterways in the town (monitoring building and renovations in the flood plain, prohibiting any building in flood ways).
- Grant application and approval of DR 1335 404 Hazard Mitigation Grant Program for residents to raise and/or relocate homes, and roadside stabilization to prevent erosion and property damage.
- Erosion control measures around Horseshoe Island. These measures included applying riprap and stone mixtures to the roadsides and banks of waterways for the prevention of future erosion.
- The Town of Clay is currently enrolled in the NFIP. Additionally, the Town of Clay encourages residents to obtain flood insurance from their local insurance carrier. Within the Town of Clay, mortgaged properties are required to carry flood insurance throughout the term of the mortgage.
- The Town of Clay has received a number of grants under the Clean Air and Water Acts and provided bonding for development of sewer systems for residents along the river. This will prevent unsanitary conditions during high water levels and allow residents to remain in their homes when possible.
- The Town works closely with OCDEM to monitor water levels during the spring rainy season and major storm events using the EAS system to provide residents with up-to-date information in a timely fashion.

### Extreme Temperatures (and resulting Utility Failures)

- In the event of extreme temperatures the town will notify the SOARC and support a cooling or warming shelter.
- To ensure the public safety a series of news briefings via TV and radio announcements and the county EAS system providing direction to the general public.
- In the event of a town wide utility failure the town shall institute their emergency plan, through these plan resources from county and state emergency management agencies will be utilized to assist residents.

### Fires

- A vast majority of the town has a municipal water system capable of providing water flows for any major fires.
- Fire department apparatus is current and meets ISO standards to give the residents the cheapest rates possible.
- Fire prevention and education is done through media releases, publications, open houses and code enforcement.
- Training is provided weekly by fire department instructors certified by New York State office of Fire Prevention and Control and meets Public Employees Safety and Health Standards (PESH OSHA).
- The Onondaga County Fire Investigation Unit and the Town of Clay Police investigate all structure fires.

### Infestation

- Mosquito spraying programs within Town wetlands, performed by the OCDH, is on-going.
- The town provides publications and media releases for its residents with assistance of the OCDH.
- To ensure public safety the highway department works to eliminate shallow (stagnant) water by improving drainage as possible.

### Hazardous Materials (Haz-Mat) Releases at Fixed Sites

- The Clay and Moyers Corners fire departments solely located within the Town of Clay make up a major portion of Onondaga County Special Operations Team who deals with hazardous materials incidents.
- The fire service protecting the Town of Clay is part of the state-wide and county-wide Fire Mutual-Aid and Response Plan.
- Through risk management and analysis improvements to the transportation system by adding traffic control devices, speed limits and general road eminence including widening of roads and shoulders will lesson the likely hood of a major transportation incident.
- Pipelines and the railroad system have established programs to inspect and maintain them on an annual basis by the companies who own and operate them.
- The Pipeline Group holds annual training which is attended by personnel from the Town of Clay Fire Departments, Highway Department, Emergency Response personnel, and other municipal officials.

### Other Multi-Hazard Mitigation Activities

- To coordinate risk reduction for Onondaga County, the County Executive has designated the Director of the SOCPA as the County Hazard Mitigation Coordinator.
- The SOCPA has organized and hosted public meetings to inform the public on work activities and grant applications that are being applied for to provided better protection to the community from identified hazards.
- Public awareness education program, this program gives the public comprehensive information on significant hazards. Public Awareness will be provided through the county website, door to door notification, FEMA pamphlets, radio, television, amateur radio (R.A.C.E.S), and books and kits dealing with all aspects of emergency management and materials developed by NYSEMO and other State Departments as appropriate, will be made available for this program.
- Specific attention to address residents that are impaired or that do not speak English.
- Attend training for Town employees on matters of Weapons of Mass Destruction (WMD) awareness, NIMS, Chemical, Biological, Radiological, Nuclear, Explosive (CBRNE) domestic preparedness program, Biological and Chemical Incident Command course, Public Service Critical Incident Management (PSCIM) at Onondaga Community College, and the New York State Domestic Preparedness Conference on an annual basis prepared and executed by NYSEMO. Town employees will also be trained in an all-hazards approach to emergency operations.
- Update of the Emergency Action Plan (done in 1993) to include and implement the NIMS.
- Have appropriate personnel attend FEMA training courses; Incident Command System 100 and Independent Study 700.

- Participation in the Highway Watch program (HWW). A program supported and funded by the Transportation and Security Administration for establishing professional eyes and ears on our nations Highways to improve safety and security.
- Preparedness planning on how to initiate a Disaster Declaration to receive Federal relief dollars.
- Develop public and private partnerships with American Red Cross and other private companies or agencies for enhancement of response and recovery efforts.
- Defining the Lead Agency for specific emergencies for effective command and control.
- Onondaga County Human Needs Task Force. Responsible for the implementation of emergency services to the elderly, mentally and physically challenged, and non-English speaking, and or any members of the community during a disaster or any emergency. This task force is comprised of public and private partnerships.
- Maintain and retrofit communication system between response agencies and private partners.
- Special Needs Shelter Task Force. The goal of this task force during a disaster is to respond effectively and efficiently to set up a special needs shelter and to meet the needs of vulnerable and at-risk citizens in Onondaga County.

These past activities have contributed to each agency's and town-wide understanding of mitigation activity needs, costs and benefits. Also, these past efforts provide a foundation for the Planning Group to use in developing this Hazard Mitigation Plan.

## 5.2 General Mitigation Planning Approach

The general mitigation planning approach used to develop this plan was developed using the FEMA publication, *Developing the Mitigation Plan: Identifying Mitigation Actions and Implementing Strategies* (FEMA 386-3) and input provided by NYSEMO. The FEMA document and NYSEMO 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. 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 activities were identified for each hazard of concern and across multiple agencies and hazards. The alternative mitigation activities are presented in a series of hazard-specific tables. The potential mitigation activities were qualitatively evaluated against the goals and objectives and other evaluation criteria and prioritized into three categories: high, medium, and low priority.
- **Prepare an implementation strategy:** High priority mitigation activities 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 activities may also be addressed or could be addressed before some of the high priority activities. Planning meetings during 2005 will support further evaluation and selection of mitigation activities. In addition, input or suggestions from SEMO will be considered as the activities are evaluated further.
- **Document the mitigation planning process:** The mitigation planning process is documented throughout this plan.

### 5.3 Mitigation Goals and Objectives

This section presents the mitigation goals identified to reduce or avoid long-term vulnerabilities to the identified hazards. The Town of Clay developed these goals and objectives based on the risk assessment results and the existing authorities, policies, programs, resources, and capabilities of the agencies in the study area. The goals and objectives are based on input from Planning Group members, research, and meetings of the Planning Group.

The mitigation goals serve as general guidelines that clarify desired hazard reduction outcomes. The goals are based on the findings of the risk assessment and input from the Planning Group, and represent a long-term vision for hazard reduction and the enhancement of mitigation capabilities. The goals are compatible with needs and goals expressed in other available community planning documents prepared by the County and the Town of Clay.

Each goal has a number of corresponding objectives that further define the specific strategies or implementation steps. The Planning Group through its knowledge of the local area, review of past efforts, findings of the risk assessment, qualitative evaluations, and identification of mitigation options developed these objectives.

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

#### Goal 1: Protect Life and Property

- *Objective 1-1:* Implement mitigation activities that will assist in protecting lives and property by making homes, businesses, infrastructure, and critical facilities more resistant to hazards.
- *Objective 1-2:* Encourage homeowners and businesses to take preventive actions in areas that are especially vulnerable to hazards.
- *Objective 1-3:* Build upon past efforts to characterize flood events by conducting additional flood studies and creating flood models.
- *Objective 1-4:* Review existing local ordinances, building codes, safety inspection procedures, and applicable rules to help ensure that they employ the most recent and generally accepted standards for the protection of buildings.
- *Objective 1-5:* Ensure that public and private facilities and infrastructure meet established building codes and immediately enforce the codes to address any identified deficiencies.
- *Objective 1-6:* Incorporate hazard considerations into land-use planning and natural resource management.
- *Objective 1-7:* Encourage homeowners, renters, and businesses to purchase insurance coverage for damages caused by hazards.
- *Objective 1-8:* Integrate the recommendations of this plan into existing local and county programs.
- *Objective 1-9:* Implement mitigation activities that encourage environmental stewardship and protection of the environment.

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 Activities* as specific actions that help to achieve the mitigation goals and objectives.

## Goal 2: Increase Public Awareness

- *Objective 2-1:* Develop and implement additional education and outreach programs to increase public awareness of the risks associated with hazards and to educate the public on specific, individual preparedness activities.
- *Objective 2-2:* Provide information on tools, partnership opportunities, funding resources, and current government initiatives to assist in implementing mitigation activities.
- *Objective 2-3:* Implement mitigation activities that enhance the technological capabilities of the jurisdictions and agencies in the Town to better profile and assess exposure of hazards.

## Goal 3: Encourage Partnerships

- *Objective 3-1:* Strengthen inter-agency communication, coordination, and partnerships to foster hazard mitigation strategies and/or projects designed to benefit multiple agencies.
- *Objective 3-2:* Identify and implement ways to engage public agencies with individual citizens, non-profit organizations, business, and industry to implement mitigation activities more effectively.

## Goal 4: Provide for Emergency Services

- *Objective 4-1:* Encourage the establishment of policies at the local level to help ensure the prioritization and implementation of mitigation strategies and/or projects designed to benefit essential facilities, services, and infrastructure.
- *Objective 4-2:* Where appropriate, coordinate and integrate hazard mitigation activities with existing local emergency operations plans.
- *Objective 4-3:* Identify the need for, and acquire any special emergency services equipment to, enhance response capabilities for specific hazards.
- *Objective 4-4:* Review and improve, if necessary, emergency traffic routes; communicate such routes to the public and communities.

## 5.4 Identification, Analysis, and Implementation of Mitigation Activities

This subsection discusses the identification, analysis, and implementation of mitigation activities for the Town of Clay.

### Identification

During the planning process, the Town of Clay and community groups identified potential loss reduction or mitigation activities for each hazard of concern. These were identified in line with the goals and objectives discussed in Section 5.3. The mitigation activities include a range of options in line with the six types of mitigation activities 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, building codes, capital improvement programs, open space preservation, and storm water management regulations.

2. **Property Protection:** Actions that involve (1) the modification of existing buildings or structures to protect them from a hazard (2) or 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, in addition to minimizing hazard loss 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, levees, floodwalls, seawalls, retaining walls, and safe rooms.

## Analysis

The mitigation activities developed for this plan are grouped by hazard and presented in a series of tables in the following sub-sections. Each alternative mitigation activity was evaluated qualitatively using several evaluation criteria, including the social, technical, administrative, political, legal, economic, and environmental (STAPLEE) opportunities and constraints of implementation. Each of these evaluation criteria is summarized below. The evaluation criteria are described in terms of situations that present opportunities for implementation success:

- Social criteria: The public must support the overall implementation strategy and specific mitigation activities; therefore, community acceptance of the proposed mitigation activities must be considered.
- Technical criteria: Such factors as technical feasibility of the proposed mitigation activity to reduce losses in the long term, with minimal secondary impact, must be considered.
- Administrative criteria: Anticipated staffing, funding, and maintenance for each mitigation activity must be considered.
- Political criteria: The political leadership of the communities must support the overall implementation strategy and specific mitigation activities; therefore, decision-maker acceptance of the proposed mitigation activities must be considered.
- Legal criteria: Whether the communities have legal authority to implement the proposed mitigation activities must be considered.
- Economic criteria: Funding needs and budget constraints must be considered.
- Environmental criteria: Environmental impacts that could be caused by implementing specific mitigation activities must be considered.

The tables in this section identify the mitigation goals and objectives driving each mitigation activity and identify the outcome of the evaluation of each mitigation activity against the STAPLEE criteria. The Planning Group evaluated these criteria, ease of implementation, cost/benefit, and implementation timeframes to prioritize each mitigation activity as high, medium, or low priority. All mitigation

activities presented in the following tables include, to the extent that information was available, an implementation timeline, funding sources, and the jurisdiction responsible for carrying out the actions.

Particular attention was given to those mitigation activities that addressed existing and new buildings and infrastructure. For example in Section 5.4.1.4, mitigation activities were developed including “analyze repetitive flood properties within The Town of Clay and identify feasible mitigation options through the Federal Flood Mitigation Program”, “continue programs to ensure the maintenance of flooding and storm water control measures”, and “Retrofit, acquire, and/or relocate buildings in flood-prone areas (including wet or dry flood proofing)”.

Particular attention also was given to those mitigation activities that address essential facilities and infrastructure. For example in Section 5.4.1.2 mitigation activities include: “Retrofit critical structures to increase resistance to storm hazards and promote hazard resistant construction of new buildings”; Section 5.4.1.1 mitigation activities include “Retrofit critical facilities with wind resistant designs and construction”; and Section 5.4.1.3 mitigation activities include “obtain funding to purchase backup generators and other redundant utilities for nursing homes and other critical assets”.

Additionally, the Planning Group established public information activities and CRS evaluation, as high priority activities based on their relative affordability, multi-agency impact, and significant potential benefits. The Town will communicate with the general public through public meetings the Town’s Flood Mitigation Program. The Town is developing storm water plans to comply with the new Phase II storm water regulations, thus some storm water activities are included where they will support mitigation for the hazards of concern, such as flood. Certain activities, such as buy-outs in flood zone areas, are ranked as lower priorities based on the cost/benefit ratio.

Throughout the mitigation planning process, mitigation activities were evaluated at various Planning Group meetings. Activities were submitted for inclusion by individuals, members of the public, EDC members and Planning Group members, and during the brainstorming sessions (for example, a Planning Group meeting on December 10, 2004). At various intervals, members of the Planning Group met and communicated via email and telephone to develop and discuss mitigation activities for the hazards identified in this plan based on the criteria listed above, current programs and policies, and the results of the risk and exposure assessments. Additionally, the Planning Group solicited input and mitigation activities from various agencies in the Town, such as local fire and police departments, highway department, public utilities, North Syracuse and Liverpool school districts, and the community response groups. The Planning Group and its consultant reviewed the mitigation activities prior to their inclusion in the plan to ensure the mitigation activities met the goals and objectives of the mitigation plan, addressed the STAPLEE criteria, and were assigned a high, medium, or low priority.

The Planning Group determined that any mitigation activity that may help the communities become more disaster resistant should be included in the plan even if funding is not currently available or if a mitigation activity was assigned a lower priority based on the STAPLEE criteria or cost/benefit evaluation. Therefore, most mitigation activities identified by the group are included in the following sub-sections. Only those mitigation activities that were considered to present prohibitive costs, technical or practical issues, high cost/benefit ratios, or other concerns based on community priorities and needs were removed from consideration. For example a mitigation activity to develop better flood warning systems was eliminated from consideration because NOAA indicated that most flood damage in the study area results from flash floods and the warning system would not support notification for this type of flooding. Similarly, a general mitigation activity to construct berms or levees in flood-prone areas was removed because the Town plans to conduct comprehensive engineering studies as developments are proposed in watersheds with a history of flooding problems. Consistent with the results of those studies, developments shall include measures that gradually reduce downstream flooding. Therefore, the study

effort is included as a mitigation activity, rather than general berm or levee construction. Finally, large buy-outs were removed as mitigation activities due to the high cost/benefit analysis ratio.

It should be noted that some mitigation activities are applicable to more than one hazard. For example, mitigation strategies related to the removal of tree limbs and the development of removal programs for tree limbs and backup generator purchases apply to the severe winter storm, severe storm and utility failure hazards. Mitigation activities related to compliance with the Phase 2 Storm water Regulations are applicable to the flood and water supply contamination hazards. The multi-hazard sub-section focuses on such cross-hazard activities (see Section 5.4.4).

## Implementation

The Town of Clay prioritized the potential mitigation activities for each hazard of concern and ranked each as a high, medium, or low priority. The priority for each proposed mitigation activity was determined by analyzing the community's vulnerability to each hazard (as presented in Section 4 of this plan), the potential benefits of the mitigation activity, and the feasibility of the mitigation activity based on a review of the STAPLEE criteria. Mitigation activity priorities also are based on "the extent to which benefits are maximized according to a cost benefit review" (DMA 2000). For example, low cost activities that support multi-hazard benefits are assigned a high priority in some cases, based on the cost/benefit review. For example, a number of high priority mitigation activities focus on public awareness and education programs or integrating the mitigation plan into current programs because these types of mitigation measures are affordable, achievable and have an immediate benefit.

The Planning Group also identified specific mitigation activities that will prevent direct future losses; however, current funding is not identified for all of these activities at present. The Town of Clay has limited resources to take on new responsibilities or projects. The implementation of these mitigation activities is dependent on approval of the elected governing body and the ability of the community to obtain funding from local or outside sources. Where such activities are high priorities, the Town will work together and with the County, NYSEMO, and other funding agencies to secure funds.

In general, mitigation activities ranked as high priorities will be addressed first. However, medium or even low priority mitigation activities with implementation barriers and funding requirements 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 the community and Planning Group members, the public, and NYSEMO as the plan is implemented.

The mitigation activities listed in the following tables are presented in the following order for each hazard high priority, medium priority, and low priority. Within each category, the mitigation activities are then listed in the order in which they were identified.

The tables present the following:

- Mitigation activities for each hazard and for multi-hazards
- Mitigation goals and objectives supported by each activity
- Agencies for which the mitigation activities apply
- Potential funding sources for the mitigation activity (grant programs, current operating budgets or funding, or the agency or jurisdiction that will supply the funding; additional resources identified in Table 2.3)
- Estimated budget for the mitigation activity (financial requirements for new funding or indication that the activity is addressed under current operating budgets)

- Time estimated to implement and complete the mitigation activity
- Existing policies, programs, and resources to support implementation of the mitigation activity (additional policies, programs, and resources identified in Table 2.3)
- Lead agency(ies) responsible for the mitigation activity
- Agency(ies) to support the lead agency (additional agencies identified in Section 2)

Users should note that some budget estimates for this plan are preliminary estimates based on professional knowledge and Planning Group input; refined and revised budget estimates will be prepared as activities are moved forward for implementation (for example, to support grant applications). Other budget estimates are more refined based on mitigation activities that have been studied and estimated previously to support other related program efforts. At this stage, resources are not available to prepare detailed budget estimates for each potential mitigation activity, but preliminary estimates have been made. Where specific dollar value estimates were not available, the Planning Group used professional knowledge and judgment to assign the resource needs (budget) for each activity as either low, medium, or high, as summarized below:

- Low – Less than \$10,000
- Medium – \$10,000 to \$100,000
- High – Greater than 100,000

The budget information focuses on the cost to implement activities and not the ability of the municipalities to address the cost; as discussed above, outside funding may be required, where municipal funds are not available to support implementation. Potential federal funding sources are identified in Table 2.3 and an extensive listing of federal funding opportunities is identified in the document “*Federal Mitigation Programs, Activities, & Initiatives*” and is available at the following website: <http://www.fema.gov/doc/fima/fmpai.doc>. This document includes information on each federal program including the type of available assistance and contact information; a copy is included in Appendix D of this plan. Additionally, Table 2.3 also includes other existing policies, programs, and resources to support the mitigation activities other than those listed below.

The remainder of this section presents mitigation activities identified and analyzed for each hazard in the same order they are addressed throughout this report (natural hazards, technological hazards, and human-caused hazards). It also presents multi-hazard activities and recommended next steps.

### **5.4.1 Natural Hazards**

This section addresses mitigation activities for natural hazards including: (1) Severe Storm (wind, including hurricane and tornado), (2) Severe Winter Storm (snow), (3) Ice Storm, (4) Flood, (5) Extreme Temperatures, (6) Fire (urban and wild), and (7) Infestation.

#### **5.4.1.1 Severe Storm (including hurricane and tornado) Mitigation Activities**

The alternative mitigation activities identified for the severe storm hazard include the following types of activities: prevention, property protection, public education and awareness, natural resource protection, emergency services, and structural project activities.

The Planning Group applied the qualitative STAPLEE criteria to evaluate the mitigation activities and identify the preliminary ranking priority for each action (high, medium, or low). The severe storm hazard includes a fair amount of warning time and generally, the area is prepared to address severe storm

impacts. However, vulnerabilities include utility failures, damage to mobile homes or other vulnerable buildings, elderly and low-income populations that may not be well prepared for such events, and transportation accidents that can be associated with these events. The public considers the severe storm hazard as moderately important because it occurs relatively frequently and can have a direct impact on daily routines. Also, in the event of hurricanes, this hazard can also include significant inland rains that could cause cascading impacts (flood events) to occur. Therefore, some of the mitigation activities discussed under flood also will help to mitigate against potential severe storm impacts.

Based on a preliminary mitigation ranking effort, no high priority activities were identified for the severe storm hazard, other than the flood-specific mitigation activities discussed in Section 5.4. The specific timeframes; responsible parties; and existing policies, programs, and resources to support implementation of each high-priority mitigation activity are identified in Table 5-4-1-1, as available.

#### **5.4.1.2 Severe Winter Storm Mitigation Activities**

The alternative mitigation activities identified for the severe winter storm hazard include the following types of activities: prevention, property protection, public education and awareness, natural resource protection, emergency services, and structural project activities.

The Planning Group applied the qualitative STAPLEE criteria to evaluate potential mitigation activities to determine the preliminary ranking priority for each action (high, medium, low). The severe winter storm hazard includes a fair amount of warning time and generally, the study area is well prepared to address the winter storm hazard and its impacts. However, vulnerabilities include utility failures, elderly and low-income populations that may not have adequate heat or food supplies during these events, and transportation accidents and road damage that are often associated with these events. Indirect impacts can include disruption of business and social services if personnel or customers/users are not able to travel. The public considers the severe winter storm hazard as important because it occurs frequently and can have a direct impact on daily routines.

Based on a preliminary mitigation ranking effort, two high-priority mitigation activities are recommended for implementation. The high-priority mitigation activities are presented in Table 5-4-1-2.

**TABLE 5-4-1-1. SEVERE STORM (WIND, INCLUDING HURRICANE AND TORNADO) MITIGATION ACTIVITIES**

**TOWN OF CLAY, NEW YORK**

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
1.1 Maintain and enhance programs to keep trees from threatening lives, property, and public infrastructure during storm events, including tree trimming and removal programs.	Goal 3, Objective 3-1 Goal 4, Objective 4-2	H	Current funding sources	\$7,000	Ongoing	FEMA Programs	ToC HD	Ni-Mo
1.2 Enhance public education programs regarding both incoming and outgoing evacuation routes.	Goal 4, Objective 4-4	H	Local	\$2,000	2 years	Public-private partnerships;	OCDEM	ToC
1.3 Identify, map and publicize locations around the town that have the highest incidence of severe-storm related impacts.	Goal 1, Objective 1-7; Goal 2, Objective 2-3	M	State	\$10,000	2 years	Community Technology Initiatives, NOAA and NWS data	OCDEM	ToC
1.4 Increase public awareness of storm mitigation activities, including severe storm warnings and advisories.	Goal 2, All Objectives	M	Local	\$2,000	2 years	Public-private partnerships, Public Outreach programs, Radio Stations, PSAs, PBS	OCDEM	ToC
1.5 Encourage development and enforcement of wind-resistant building siting and construction codes. Focus to be placed on vulnerable residencies first (i.e. mobile homes).	Goal 1, Objective 1-1	L	TBD	L	TBD	Building code, enforcement	ToC	TBD
1.6 Retrofit critical facilities with wind resistant designs and construction.	Goal 1, Objective 1-1	L	Federal State Local	M to H	5 years	HMGP	Owners of critical facilities	ToC

**Notes:**

FEMA Federal Emergency Management Agency  
 HD Highway Department  
 HGMP Hazard Mitigation Grant Program  
 N/A not applicable

Ni-Mo Niagara-Mohawk (now National Grid)  
 NOAA National Oceanic and Atmosphere Agency  
 NWS National Weather Service  
 OCDEM Onondaga County Dept. of Emergency M'gt.

PBS Public Broadcast System  
 PSA Public Service Announcement  
 TBD To Be Determined  
 ToC Town of Clay

TABLE 5-4-1-2. SEVERE WINTER STORM MITIGATION ACTIVITIES

TOWN OF CLAY, NEW YORK

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
2.1 Inform citizens about winter storm events how to prepare for such events. Indicate locations of shelters and tips for staying at home. Provide advisories to avoid road travel combined with safe travel tips. Provide information on hazards of unheated houses, guidance on the use of portable and standby generators, fire hazards associated with space heaters, protecting plumbing during a winter storm, and coping with power failures.	Goal 2, All Objectives	H	NYSEMO	\$3,000	1 year	Mailing pamphlet or page in newspaper, annually. PSAs; FEMA mitigation resources, public education grant	ToC	ARC
2.2 Develop a buddy network of concerned citizens that will check in on elderly, handicapped, low-income, or non-English speaking citizens during major or extended events.	Goal 2, All Objectives and Goal 3, Objective 3-2	H	Grants, revenues	L	Ongoing	Office of Aging, ARC, Existing church programs	ToC	ARC, OCDOH
2.3 Maintain and enhance programs to keep trees from threatening lives, property, and public infrastructure during storm events.	Goal 3, Objective 3-1 Goal 4, Objective 4-2	M	ToC	M	Ongoing	FEMA Programs	ToC HD	Ni-Mo
2.4 Continue to coordinate maintenance and mitigation activities to reduce risk to public infrastructure from severe winter storms.	Goal 1, Objective 1-1	M	Federal, State, Local	M	Ongoing	FEMA Programs	ToC HD	OCDEM
2.5 Survey institutions that have specific needs populations to identify their emergency needs.	Goal 4, All Objectives	M	Federal, State	L	6 years	TBD	TBD	ARC, OCDOH, OCDEM
2.6 Obtain funding to purchase backup generators and other redundant utilities for nursing homes and other critical assets that require such emergency power sources.	Goal 4, All Objectives	M	Federal, State	TBD	5 years	ToC HMGP, ARC	ToC	ARC, OCDOH
2.7 Map and publicize locations that have the highest incidence of severe storms related events.	Goal 1, Objective 1-7	M	State, County	\$10,000	2 years	NOAA and NWS data, HMGP, ToC FHMP, NYS DOT	ToC P&D	ToC Municipal Officials
2.8 Increase public awareness of storm mitigation activities, including storm warnings and advisories. (See also 5.2.1)	Goal 2, All Objectives	M	State, Local	\$2,000/ jurisdiction	Ongoing	Public-private partnerships, Public Outreach programs, PSAs, Radio Stations, PBS, EBS	ToC HD (EM), OCDEM, NYSEMO	ARC, NOAA

**TABLE 5-4-1-2. SEVERE WINTER STORM MITIGATION ACTIVITIES**

**TOWN OF CLAY, NEW YORK**

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
2.9 Retrofit critical structures to increase resistance to storm hazards and promote hazard resistant construction of new buildings.	Goal 1, Objective 1-1	L	TBD	M to H	Ongoing	Owners of critical facilities, Code Enforcement Officers	ToC	Code Enforcement Officials
2.10 Minimize the disruption and cost of storm events by maintaining to the extent possible the ability of public works personnel to maintain the safe flow of traffic over streets and highways through DPW specific activities such as purchasing additional equipment, securing funds for additional personnel during winter storm events, and purchasing additional road salt.	Goal 4, Objective 4-2	M	Existing Funds	\$100,000	Ongoing	Existing Transportation and Emergency Plans, ToC HMGP	ToC HD	OCDEM
2.11 Enhance weather monitoring to attain earlier severe winter storm warnings.	Goal 2, All Objectives	L	State, County, Local	L to H	Ongoing	Weather Monitoring	OCDEM	NOAA, NWS, County and local public works

**Notes:**

ARC American Red Cross  
 EBS Emergency Broadcast System  
 HD Highway Department  
 HMGP Hazard Mitigation Grant Program  
 N/A Not Applicable

Ni-Mo Niagara-Mohawk  
 NOAA National Oceanic and Atmosphere Agency  
 NWS National Weather Service  
 NYSDOT New York State Department of Transportation  
 OC Onondaga County  
 OCDEM Onondaga County Dep't. of Emergency Mgt.  
 OCDOH Onondaga County Department of Health

OCSWCD Onondaga County Soil and Water Conservation District  
 PBS Public Broadcast System  
 PSA Public Service Announcement  
 SEMO State Emergency Management Office  
 TBD To Be Determined  
 ToC Town of Clay

The Town of Clay will implement the high-priority mitigation activities by leveraging existing funds and seeking new funding sources. In general, all participating jurisdictions have agreed to make a concerted effort to accept responsibility of at least one high-priority mitigation activity and have agreed to complete that activity within one year from plan adoption, if feasible. As future Planning Group meetings continue, priorities and accomplishments will be revisited and documented by updates to Table 5-4-1-2.

The specific timeframes; responsible parties; and existing policies, programs, and resources to support implementation of each high-priority mitigation activity are identified in Table 5-4-1-2, as available.

#### **5.4.1.3 Ice Storm Mitigation Activities**

The alternative mitigation activities identified for the ice storm hazard include the following types of activities: prevention, property protection, public education and awareness, natural resource protection, emergency services, and structural project activities.

The Planning Group applied the qualitative STAPLEE criteria to evaluate potential mitigation activities to determine the preliminary ranking priority for each action (high, medium, low). The ice storm hazard includes a fair amount of warning time. However, vulnerabilities include utility failures, elderly and low-income populations that may not have adequate heat or food supplies in the event of utility failure, and transportation accidents that are often associated with these events. Indirect impacts can include disruption of business and social services if personnel or customers/users are not able to travel.

The specific timeframes; responsible parties; and existing policies, programs, and resources to support implementation of each high-priority mitigation activity are identified in Table 5-4-1-3, as available. As future Planning Group meetings continue, priorities and accomplishments will be revisited and documented by updates to Table 5-4-1-3.

#### **5.4.1.4 Flood Mitigation Activities**

The alternative mitigation activities identified for the flood hazard include the following types of activities: prevention, property protection, public education and awareness, natural resource protection, emergency services, and structural project activities.

The planning committee applied the qualitative STAPLEE criteria to all of the alternative mitigation activities to identify the preliminary priority for each action (high, medium, or low). Based on the moderately high risk presented by the flood hazard in the study area, including the frequency of flood events, the short onset time, and the significant inventory loss and interruptions associated with this hazard, a number of high-priority mitigation activities were identified. In addition, the flood hazard is perceived to be a high-priority hazard by the public and political leadership and many of the high-priority mitigation activities that are recommended for implementation are not only technically feasible, but also are administratively feasible.

**TABLE 5-4-1-3. ICE STORM MITIGATION ACTIVITIES**

**TOWN OF CLAY, NEW YORK**

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
3.1 Inform citizens about ice storm events and how to prepare for such events, particularly with respect to loss of electricity.	Goal 2, All Objectives	H	SEMO	L	1 year	Mailing pamphlet or page in newspaper, annually. PSAs; FEMA mitigation resources, public education grant	ToC	ARC
3.2 Develop a buddy network of concerned citizens that will check in on elderly, handicapped, low-income, or non-English speaking citizens during major or extended events.	Goal 2, All Objectives and Goal 3, Objective 3-2	H	Grants, revenues	L	Ongoing	Office of Aging, ARC, Existing church programs	ToC	ARC, OCDOH
3.3 Continue to keep trees from threatening lives, property, and public infrastructure during ice storm events (see also 1.x and 2.x mitigation activities).	Goal 3, Objective 3-1 Goal 4, Objective 4-2	M	ToC	M	Ongoing	FEMA Programs	ToC HD	Ni-Mo
3.4 Continue programs to coordinate maintenance and mitigation activities to reduce risk to public infrastructure from ice storms.	Goal 1, Objective 1-1	M	Federal, State, Local	M	Ongoing	FEMA Programs	ToC HD	OCDEM
3.5 Obtain funding to purchase backup generators and other redundant utilities for nursing homes and other critical assets that require such emergency power sources.	Goal 4, All Objectives	M	Federal, State	TBD	5 years	ToC HMGP, ARC	ToC	ARC, OCDOH
3.6 Identify, map and publicize locations that have the highest incidence of ice storm related impacts, particularly with respect to loss of critical services (water, sewer) and heat.	Goal 1, Objective 1-7	M	Local	L	2 years	TBD	ToC	Homeowner's Ass'ns.
3.7 Increase public awareness of ice storm mitigation activities, including ice storm warnings and advisories. (See also 5.2.1)	Goal 2, All Objectives	M	State, Local	\$2,000/ jurisdiction	Ongoing	Public-private partnerships, Public Outreach programs, PSAs, Radio Stations, PBS, EBS	ToC HD (EM), OCDEM, NYSEMO	ARC, NOAA
3.8 Enhance weather monitoring to attain earlier ice storm warnings.	Goal 2, All Objectives	L	State, County, Local	L to H	Ongoing	Weather Monitoring	OCDEM	NOAA, NWS, County and local public works

## TABLE 5-4-1-3. ICE STORM MITIGATION ACTIVITIES

### TOWN OF CLAY, NEW YORK

**Notes:**

ARC American Red Cross  
 EBS Emergency Broadcast System  
 FEMA Federal Emergency Management Agency  
 HD Highway Department  
 HMGP Hazard Mitigation Grant Program  
 N/A not applicable  
 Ni-Mo Niagara-Mohawk (now National Grid)

NOAA National Oceanic and Atmosphere Agency  
 NWS National Weather Service  
 NYSDOT New York State Department of Transportation  
 NYSEMO New York State Emergency Management Office  
 OC Onondaga County  
 OCDEM Onondaga County Department of Emergency M'gt.

OCDOH Onondaga County Dep't of Health  
 OCSWCD OC Soil and Water Conservation District  
 PBS Public Broadcast System  
 PSA Public Service Announcement  
 TBD to be determined  
 ToC Town of Clay

High-priority mitigation activities are recommended for implementation before lower-priority mitigation activities. The high-priority mitigation activities are presented in Table 5-4-1-4 and generally focus on the following:

- Active involvement in the NFIP and evaluation of participation in the CRS.
- Continued land management and code enforcement efforts to monitor and restrict development in flood plains and floodways.
- Continued and expanded maintenance/clearing of drainage areas.
- Public awareness for residents and businesses, promoting management of litter and debris in drainage areas.
- Improved coordination and communication amongst the many agencies that can affect and manage river level. These agencies include the NY State DOT who regulates the level of Oneida Lake for the State Barge Canal System via Caughdenoy Dam, the State Barge Canal System, and the New York Waterway System. Other agencies with roles in flood situations include local, county and State Emergency Management, local Fire and Police, New York State Thruway Authority, ARC, NYDEC, OCDDS, OCDOH, and the USACE.
- Improved communication between agencies and the public for monitoring water levels and notifications of pending problems.
- Assessments of potential flood controls (structural projects). According to the 1992 FEMA Flood Insurance Study for the Town of Clay, ‘no flood protection measures currently exist or have been initiated along any streams within the town, and none presently are being considered.’ The study further notes that while the Caughdenoy Dam is used to regulate the level of Oneida Lake, it is not used as a flood protection device and is left fully open during periods of flood flow.

The Town of Clay will implement the high-priority mitigation activities by leveraging existing funds and seeking new funding sources. As future Planning Group meetings continue, priorities and accomplishments will be revisited and documented.

The specific timeframes; responsible parties; and existing policies, programs, and resources to support implementation of each mitigation activity are identified in Table 5-4-1-4, as available.

#### **5.4.1.5 Extreme Temperatures (Cold) Mitigation Activities**

Due to the northerly latitude of the Town of Clay, the extreme temperature hazard is generally limited to extreme low temperatures. The alternative mitigation activities identified for the extreme temperature hazard include public education and awareness, emergency services, and structural project activities. These proposed mitigation activities address various objectives under each of the four stated goals, as shown in Table 5-4-1-5.

The qualitative STAPLEE criteria were applied to evaluate mitigation activities to determine the priority of each (high, medium, low) based on information compiled to date and input received from stakeholders through June 2005. Statistically, extreme temperatures disproportionately affect the elderly and low-income residents, who have a greater chance of being exposed to extreme cold temperatures when antiquated or poorly maintained heating systems fail, energy supplies run out or are disconnected, or persons fail to seek appropriate shelter.

TABLE 5-4-1-4. FLOOD MITIGATION ACTIVITIES

TOWN OF CLAY, NEW YORK

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
4.1 Continue participation in the NFIP.	Goal 1, Objectives 1-2 and 1-3	H	FEMA, SEMO, local	L	Ongoing	NFIP, NYSDEC	ToC	OC, FEMA, NYSEMO
4.2 Evaluate participation in the CRS.	Goal 1, Objectives 1-2 and 1-3	H	FEMA, SEMO, local	L	3 years	NFIP, NYSDEC	ToC	OC, FEMA, NYSEMO
4.3 Continue to conduct engineering studies and watershed assessments to support the reduction of flood potential.	Goal 1, Objective 1-4	H	Local	M-H	Ongoing	ToC HMGP	ToC	USACE, OCSWCD
4.4 Continue to analyze repetitive loss properties within the Town of Clay and identify feasible mitigation options through the 404 Hazard Mitigation Grant Program.	Goal 1, Objective 1-4	H	USACE, OC, FEMA	M	Ongoing	NFIP, ToC HMGP	ToC	OC
4.5 Enhance data and mapping for floodplains within the town and identify and map any flood-prone areas outside of currently designated areas (see also 5.1.6).	Goal 1, Objective 1-4	H	TBD	M to H	2 years	NYCDEC, NAF Managers	SOCPA - GIS, NYSDEC	OCSWCD, NYSDOT, USGS, ACOE
4.6 Update flood plain (FIRM) maps.	Goal 1, Objective 1-4	H	FEMA	H	5 years	NYSDEC, FEMA	NYSDEC	OCPB, ACOE
4.7 Develop and implement traffic control plans to alleviate unnecessary vehicles and people in affected areas during flood events.	Goal 4, Objective 4-1	H	Local	L	1 Year	TBD	ToC PD	OCDEM, Homeowner's Ass'ns.
4.8 Continue to monitor building and renovation in floodplain, and prohibit building in floodways	Goal 1, Objectives 1-1, 1-2, and 1-5	H	Current funding	Current resources	Ongoing	Community Infrastructure Improvements	ToC P&D	NYSDEC, USACE
4.9 Implement Phase 2 Stormwater regulation compliance, and focus on efforts under S4 that also help to reduce flood risk.	Goal 1, Objectives 1-1, 1-4, 1-5, 1-6, and 1-9	H	ToC, OC	TBD	5 years	Phase II Storm Water Regulatory Requirements	ToC	OC, NYSDEC
4.10 Continue to work with OCDEM to monitor water levels during critical periods (spring, major storm events)	Goal 1, Objective 1-4	H	ToC	L	Ongoing	ToC EMP, OC EMP	ToC HD, OCDEM	NYSDEC, USGS

**TABLE 5-4-1-4. FLOOD MITIGATION ACTIVITIES**

**TOWN OF CLAY, NEW YORK**

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
4.11 Develop a communication protocol between residents in floodprone areas and appropriate local agency(s) to leverage this river and flood monitoring resource	Goal 3, Objective 3-2	H	ToC	L	1 year		ToC HD (EM)	Homeowner Ass'ns., OCDEM
4.12 Support and expand use of the Emergency Alerting System (EAS) to inform and update public of pending and occurring flood situations, particularly in flood critical areas (e.g. Foster Road, Horseshoe Island)	Goal 4, Object 4-1	H	ToC	L	Ongoing	ToC EMP, OC EMP	ToC HD, OCDEM	NOAA, NWS,FEMA, State Police, Homeowner Ass'ns.
4.13 Develop model ordinances for sediment and erosion control, storm water control, and stream buffer implementation.	Goal 1, Objectives 1-1, 1-4, 1-5, 1-6, and 1-9	M	ToC	\$3,000	1 year	Phase II Storm Water Regulatory Requirements	Town	NYSDEC, OCSWCD
4.14 Continue use of the NYSDEC's Stormwater Management Manual to minimize the impact of future land use changes.	Goal 1, Objective 1-7	M	Local	L	Ongoing	Phase II Storm Water Regulatory Requirements, NYSDEC	ToC	OCSWCD, NYSDEC
4.15 Consider programs/measures to reduce impervious surfaces	Goal 1, Objective 1-9	L	Local	M	4 years	Existing land use and storm water management programs; zoning	ToC P&D	SOCPA
4.16 Encourage development of acquisition and management strategies to preserve open space for flood mitigation, fish habitat, and water quality in the floodplain.	Goal 1, Objective 1-7	M	Federal, State, Local	TBD	5 years	County Comprehensive Plan,	ToC P&D	SOCPA
4.17 Continue to develop and/or enforce existing floodplain regulations to encourage the continued function of naturally controlling flood control mechanisms.	Goal 1, Objective 1-5	M	Existing Funds	L	Ongoing	Site plan review, code enforcement	ToC	OCWED
4.18 Limit, to the extent practicable, development within floodplain areas to avoid degradation of their capacity to control flood levels and to reduce potential future losses due to flooding.	Goal 1, Objective 1-5	M	Existing Funds	L	Ongoing	Site plan review, code enforcement, zoning	ToC	OCWED

TABLE 5-4-1-4. FLOOD MITIGATION ACTIVITIES

TOWN OF CLAY, NEW YORK

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
4.19 Ensure that property development that occurs within floodplain areas is constructed to be flood proof, to the extent practicable.	Goal 1, Objective 1-5	M	Federal, State, Local	L	Ongoing	Site plan review, code enforcement, zoning	ToC	TBD
4.20 Wherever practicable, use zoning and other growth management techniques to channel intensive development to areas outside of floodplains.	Goal 1, Objective 1-5	M	Federal, State, Local	L to M	Ongoing	Site plan review, code enforcement, zoning, NFIP	ToC P&D	SOCPA
4.21 Identify or update existing land use in major stream corridors and floodplains in the town.	Goal 1, Objectives 1-4 and 1-6	M	County	\$3,000	1 year	Land Use and County Comprehensive Planning	ToC P&D	SOCPA-GIS, NYDEC
4.22 Implement training and public outreach to residents, code officials, and contractors on floodplain management and flood mitigation as well as flood response planning and training.	Goal 2, All Objectives, Goal 3, All Objectives	M	Federal, State, Local	\$2,000	1 year	NFIP, ToCFMP	TC NFIP Managers	ToC HD (EM)
4.23 Expand existing system/process for cleaning and maintaining storm water drains and catch basins.	Goal 1, Objectives 1-1, 1-4, 1-5, 1-6, and 1-9	H	ToC	M	Ongoing	Phase II Storm Water Regulations	ToC HD	ToC DPW , OCWED, Landowner and Business Ass'ns.
4.24 Continue to identify and address obstructions to surface water drainage.	Goal 1, Objective 1-4	H	Local	L to M	Ongoing	Ongoing highway official work, storm water programs	ToC HD	Landowner and Business Ass'ns, OCWED, OCSWCD
4.25 Work with businesses near floodprone areas to control and cleanup litter that impacts drainage	Goal 3, Objective 3-2	H	ToC	L	2 years	TBD	ToC P&D	ToC Business Ass'ns.
4.26 Encourage implement community awareness programs regarding the need for litter removal and debris cleanup, including participation in activities such as Earth Day	Goal 2, Objectives 2-1, 2-2	H	ToC	L	1 year	NYSDEC	ToC	Landowner Ass'ns., schools
4.27 Work jointly with the New York State Thruway Authority and associated stakeholders to manage stream levels, as possible, to reduce the potential for seasonal flooding.	Goal 3, All Objectives	H	Local	M	3 years	Thruway Authority	ToC	NYSTA

TABLE 5-4-1-4. FLOOD MITIGATION ACTIVITIES

TOWN OF CLAY, NEW YORK

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
4.28 Continue to operate the USGS stream flow gauges for the Seneca River in Baldwinsville and the Oneida River at Caughdenoy. Collect flow data for other sub-watersheds to determine their potential flood risk.	Goal 1, Objective 1-4	M	USGS, local	Current funding	Ongoing	Aquifer program	USGS	ToC
4.29 Identify, evaluate and implement effective flood mitigation activities for specific "hot spots" within the town.	Goal 1, Objective 1-1	M	Federal, State, Local	L	Ongoing	Flood Mitigation Initiatives	ToC	Landowner Ass'ns.
4.30 Implement physical mitigation activities, as necessary, within floodprone areas (including roadside stabilization, stacked rock walls, installation of riprap, and vegetation plantings).	Goal 1, Objectives 1-1 and 1-7	M	Federal, State, Local	M to H	Ongoing	ToC FHMP, Bond Act	ToC	ToC P&D, ToC HD, OCSWCD, USACE
4.31 Continue programs to ensure the maintenance of flooding and storm water control measures.	Goal 1, Objective 1-4	M	TBD	L to M	Ongoing	Phase II Storm Water Regulatory Requirements	ToC	OCDDES, USACE
4.32 Retrofit, acquire, and/or relocate buildings in flood-prone areas (including wet or dry flood proofing).	Goal 1, Objective 1-1	M	404 HMGP	H	Ongoing	NFIP, HMGP	ToC	ToC P&D, OCSWCD, NYSDEC, SEMO, FEMA
4.33 Monitor condition and maintain repair of Town roads and roadbanks in high flood hazard areas (e.g. Foster Road, Wetzel Road, and Horseshoe Island Road).	Goal 4, Objective 4-4	M	ToC	M	ongoing	Community Infrastructure Maintenance	ToC HD	USACE, NYSDEC
4.34 Ensure that adequate shelter is available to community residents in the event that a flood event causes displacement.	Goal 4, Objective 4-2	H	Federal, State, Local	L to M	Ongoing	ARC, ER, HMGP	OCDEM, ARC	NYSEMO
4.35 Maintain and encourage working relationships with OCDEM, ARC, OCHD and continue to participate in table top exercises dealing with human needs such as sheltering and evacuations	Goal 3, Object 3-1; Goal 4, Objective 4-1, 4-2	H	ToC	L	Ongoing	ToC EMP, OC EMP	ToC	OCDEM, ARC, OCHD
4.36 Continue training in the National Incident Command System (ICS), under the National Incident Management System (NIMS)	Goal 4, Objective 4-1, 4-2	H	ToC	L to M	Ongoing	ToC EMP, OC EMP	ToC HD, OCDEM	NYSEMO, FEMA, State Police

**TABLE 5-4-1-4. FLOOD MITIGATION ACTIVITIES**

**TOWN OF CLAY, NEW YORK**

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
4.37 Participate in and encourage multi-jurisdictional mitigation activities.	Goal 3, All Objectives	M	State, County, local	L	6 years	OC FHMP	SOCPA, OCDDS	NYSWS
4.38 Conduct outreach to property owners, the banking community, and the insurance industry regarding risk management associated with flood.	Goal 2, All Objectives	L	Local	\$2,000/town	2 years	Public-private partnerships, Public Outreach programs, Ithaca Journal; Radio Stations, PBS	ToC	OCDEM / NYSEMO
4.39 Emphasize watershed approaches by developing a strategy to address needs at the watershed level, including cumulative flood mitigation activities and priorities.	Goal 1, Objective 1-4	L	Local	L	Ongoing	Comprehensive Planning, Watershed initiatives	ToC	SOCPA, OCWED
4.40 Encourage interagency collaboration in the management of beaver populations, especially where beaver activities compromise drainage structures and transportation routes.	Goal 3, All Objectives	L	Local	L	Ongoing	Interagency Cooperation; Natural Resource Initiatives	ToC HD	NYSDEC

**Notes:**

ARC	American Red Cross	NYSDEC	New York State Dep't. of Environmental Conservation	P&D	Planning and Development
EM	Emergency Response	NYSTA	New York State Thruway Authority	PBS	Public Broadcasting System
EPF	Environmental Protection Fund	OCDEM	Onondaga County Department of Emergency Management	SEMO	State Emergency Management Agency
FEMA	Federal Emergency Management Agency	OCHD	Onondaga County Health Department	SOCPA	Syracuse-Onondaga County Planning Agency
FHMP	Flood Hazard Mitigation Program	OCSWCD	Onondaga County Soil and Water Conservation District	TBD	to be determined
GIS	Geographic Information Systems	OCWED	Onondaga County Water and Environment Department	ToC	Town of Clay
HD	Highway Department			USACE	United States Army Corp. of Engineers
N/A	not applicable			USFWS	United States Fish and Wildlife Service
NFIP	National Flood Insurance Program				

**TABLE 5-4-1-5. EXTREME TEMPERATURES MITIGATION ACTIVITIES**

**TOWN OF CLAY, NEW YORK**

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
5.1 Identify the locations of vulnerable populations within the town, including areas where homeless persons may congregate.	Goal 2, Objective 2-1	H	Local	L	1 year	OC Special Human Needs Task Force, OC Shelter Task Force	OCHSS	OCHD, SOARC
5.2 Work with social support agencies, homeowners associations and the general public to develop and implement appropriate monitoring systems focused on vulnerable populations during extreme cold events.	Goal 3, All objectives	H	Local	L	2 years	OC Special Human Needs Task Force, OC Shelter Task Force	OCHSS	OCHD, ARC, Homeowners Ass'ns.
5.3 Ensure that shelter facilities are adequate to support the vulnerable population that may require shelter during an extreme cold event.	Goal 4, Objective 4-1	H	Local, State	M	Ongoing	OC Special Human Needs Task Force, OC Shelter Task Force, Community safety	ARC	OCDEM, OCHSS
5.4 Enhance outreach and education programs aimed at vulnerable populations providing guidance on how to get assistance during extreme cold events, locations of shelters and tips for staying at home, how to prevent shut-off of heat and other utilities, and the proper maintenance/use of heating systems (including space heaters).	Goal 2, Objectives 2-1, 2-2	H	SEMO	\$3,000/year	Ongoing	Current public outreach initiatives, Mailing pamphlet or page in newspaper, annually. PSAs; FEMA mitigation resources, public education grant	ARC	ToC, Ni-Mo

**Notes:**

ARC American Red Cross  
 Ni-Mo Niagara-Mohawk (now Central Grid)

OCDEM Onondaga County Department of  
 Emergency Management  
 OCHD Onondaga County Health Department

OCHSS Onondaga County Human and Social Services  
 ToC Town of Clay

The high-priority mitigation activities are recommended for implementation before other alternative mitigation activities. The high-priority mitigation activities focus on developing and implementing a neighborhood watch system to monitor vulnerable populations, and improving awareness of vulnerable and homeless persons within the town. The Town of Clay will implement the high-priority mitigation activities by leveraging existing funds and seeking new funding sources. The specific timeframes; responsible parties; and existing policies, programs, and resources to support implementation of each high-priority mitigation activity are identified in Table 5-4-1-5.

#### **5.4.1.6 Fire (Urban and Wild) Mitigation Activities**

The alternative mitigation activities identified for the fire hazard include prevention, property protection, public education and awareness, natural resource protection, emergency services, and structural project activities. These proposed mitigation activities address various objectives under each of the four stated goals, as shown in Table 5-4-1-6.

The qualitative STAPLEE criteria were applied to evaluate mitigation activities to determine the priority of each (high, medium, low) based on information compiled to date and input received from stakeholders through March 2005.

Based on the limited risk of widespread fire and the sophisticated response and recovery plans and procedures currently in place for wildland and urban fires, only two mitigation activities were found to be a high priority in this Hazard Mitigation Plan. The high-priority mitigation activities are recommended for implementation before other alternative mitigation activities. The high-priority mitigation activities focus on conducting a water resources study to support adequate water supply in the case of major fire events.

The Town of Clay will implement the high-priority mitigation activities by leveraging existing funds and seeking new funding sources. The specific timeframes; responsible parties; and existing policies, programs, and resources to support implementation of each high-priority mitigation activity are identified in Table 5-4-1-6.

#### **5.4.1.7 Infestation (primarily Mosquito-Borne Disease) Mitigation Activities**

The Town of Clay has major wetland complexes located near highly populated areas as well as grazing and livestock areas, and is thus vulnerable to mosquito-borne diseases. The alternative mitigation activities identified for the infestation hazard include prevention and public education and awareness. These proposed mitigation activities address various objectives under each of the four stated goals, as shown in Table 5-4-1-7.

The qualitative STAPLEE criteria were applied to evaluate mitigation activities to determine the priority of each (high, medium, low) based on information compiled to date and input received from stakeholders through March 2005. The high-priority mitigation activities focus on continued and enhanced monitoring of mosquito-borne disease locally and regionally, continued mosquito spraying programs, and public education and outreach programs to increase awareness of the hazard and in the region. The high-priority mitigation activities are recommended for implementation before other alternative mitigation activities. The Town of Clay will implement the high-priority mitigation activities by leveraging existing funds and seeking new funding sources. The specific timeframes; responsible parties; and existing policies, programs, and resources to support implementation of each high-priority mitigation activity are identified in Table 5-4-1-7.

**TABLE 5-4-1-6. FIRE (URBAN AND WILD) MITIGATION ACTIVITIES**

**TOWN OF CLAY, NEW YORK**

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
6.1 Conduct a study identifying all water resources in the jurisdictions for fire fighting (urban and wildland), map locations, and develop fire fighting strategies based on this data.	Goal 4, Objective 4-2	H	State	L to M	2 years	Community Infrastructure Management	ToC	C&MCFD
6.2 Maintain mapping of existing and planned fire hydrants throughout the Town and identify areas that need fire hydrants.	Goal 1, Objective 1-1	H	Local	L	Ongoing	Community Technology Initiatives	ToC P&D	Fire Departments
6.3 Enhance emergency services to increase the efficiency of wildfire response activities.	Goal 4, All Objectives	M	State	M	Ongoing	Community safety	ToC / FD	NYSDEC
6.5 Enhance outreach and education programs aimed at mitigating fire hazards and reducing or preventing the exposure of citizens, public agencies, private property owners, and businesses to natural hazards.	Goal 2, All Objectives	M	Current funding sources	M	Ongoing	Community Technology Initiatives, current public outreach initiatives	FD	ToC
6.6 Amend town policies to require the use of fire-retardant materials in new construction.	Goal 1, Objective 1-1	M	TBD	L	TBD	Code, zoning, enforcement, engineering	ToC	TBD
6.7 Ensure that structures (especially places of public assembly) are maintained and comply with any and all applicable fire and safety codes.	Goal 1, Objective 1-5	M	TBD	L	Ongoing	Code, enforcement and zoning	ToC P&D	Developers
6.9 Encourage and, where feasible, assist owners of older commercial structures in rehabilitating and improving the fire resistance of their properties.	Goal 1, Objective 1-1	M	TBD	L	Ongoing	Infrastructure management, code, zoning, community development grants	ToC P&D	TBD
6.10 Identify deficiencies in equipment and training and ensure that local fire departments are adequately equipped to respond safely and effectively to fires.	Goal 4, Objectives 4-2 and 4-3	M	State	L to M	Ongoing	ISO, NFPA	FD	NYSOFP C
6.11 Enhance the Town of Clay Emergency Plan.	Goal 1, Objectives 1-7 and 1-8	M	Current funding	Current budget	1 year	Procedural changes	ToC	OCDEM / NYSEMO
6.14 Inventory alternative firefighting water sources and encourage the development of additional sources.	Goal 4, Objective 4-2	L	TBD	L to M	Ongoing	TBD	ToC	FD
6.15 Increase communication, coordination, and collaboration between wildland/urban interface property owners, local and county planners, and fire prevention crews and officials to address risks, existing mitigation activities, and Federal assistance programs.	Goal 2, All Objectives	L	TBD	L	TBD	Public Private Partnerships	OCDEM	FD

**TABLE 5-4-1-6. FIRE (URBAN AND WILD) MITIGATION ACTIVITIES**

**TOWN OF CLAY, NEW YORK**

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
6.16 Continue vegetation management activities to reduce potential fuel for a wildfire. Activities could include tree pruning, selective planting, and establishing vegetative setback distances.	Goal 1, Objective 1-7	L	TBD	M	TBD	TBD	ToC HD	ToC P&D, FD

**Notes:**

C&MCFD Clay & Moyers Corners Fire Departments  
 FD Fire Departments  
 HD Highway Department  
 ISO Insurance Service Offices, Inc.  
 N/A Not applicable  
 NFPA National Fire Protection Association  
 NYSDEC New York State Department of Environmental Conservation  
 NYSOFPC New York State Office of Fire Prevention and Control

NYSEMO New York State Emergency Management Organization  
 OCDEM Onondaga Cty. Dept. of Emergency Mgt.  
 OCFIU Onondaga Cty. Fire Investigation Unit  
 OCSCD Onondaga County Soil Conservation District  
 P&D Planning and Development  
 TBD To be determined  
 ToC Town of Clay

**TABLE 5-4-1-7. INFESTATION (PRIMARYLY DISEASE-CARRYING MOSQUITOES) MITIGATION ACTIVITIES**

**TOWN OF CLAY, NEW YORK**

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
7.1 Continue and enhance monitoring of mosquito-borne disease locally and regionally.	Goal 2, Objective 2-3	H	Local, State	L to M	Ongoing	TBD	OCHD	Agricultural Boards
7.2 Continue and enhance, as appropriate, mosquito spraying programs.	TBD	H	Local	M	Ongoing	TBD	OCHD	Agricultural Boards
7.3 Enhance outreach and education programs to increase awareness of measures people can take to reduce the mosquito hazard.	Goal 2, All Objectives	H	Local	\$2,000/year	Ongoing	Current public outreach initiatives	OCHD	TBD
7.4 Continue to monitor drainage areas to reduce and prevent shallow (stagnant) water (see similar activities in Flood Mitigation Plan section)	Goal 1, Objective 1-1	M	Local	M	Ongoing	Community safety	ToC HD	OCHD

**Notes:**

- OCHD Onondaga County Health Department
- TBD To be determined
- ToC HD Town of Clay Health Department

## **5.4.2 Man-Made and Technological Hazards**

This section addresses mitigation activities for the Hazardous Materials - Fixed Facility hazard, the single man-made hazard being addressed in detail under this Plan.

### **5.4.2.1 Hazardous Materials - Fixed Facility Mitigation Activities**

The alternative mitigation activities identified for the Hazardous Materials - Fixed Facility hazard include prevention, public education and awareness, and emergency services activities.

The Clay and Moyers Corners fire departments solely located within the Town of Clay make-up a major portion of the Onondaga County Special Operations Team who deals with hazardous materials incidents whether at a fixed site or in transportation. All hazardous materials incidents are reported to the county wide 911 system. Emergency services are dispatched and responded to by pre-established procedures and guidelines using NIMS. The fire service protecting the Town of Clay is part of the county-wide and state-wide Fire Mutual-Aid and Response Plan.

The qualitative STAPLEE criteria were applied to evaluate mitigation activities to determine the priority of each (high, medium, or low), based on the risk assessment results, review of past efforts, and input from the Planning Group and stakeholders received through July 2005. Based on the infrequency of fixed facility Hazardous Materials release events and the sophisticated response plans and procedures currently in place, only two of the proposed alternative mitigation activities were found to be of high priority. The proposed mitigation activities address various objectives under goals 1, 2, and 4, as shown in Table 5-4-3-1.

### **5.4.3 Multi-Hazard Mitigation Activities**

Previous sub-sections of this mitigation strategy have focused on hazard-specific mitigation activities for the study area. Those mitigation activities will help to reduce the damages and losses associated with specific hazard events. However, some mitigation activities will support reduced risk across all hazards. This sub-section focuses on these types of activities.

The alternative multi-hazard mitigation activities identified for this study area include prevention, property protection, public education and awareness, natural resource protection, emergency services, and structural project activities. These proposed mitigation activities address various objectives under each of the four stated goals, as shown in Table 5-4-3-1.

The qualitative STAPLEE criteria were applied to evaluate mitigation activities to determine the priority of each. Based on public perception, political considerations, technical and administrative feasibility, and economic and environmental considerations, many of the alternative mitigation activities were found to be of high priority. Additionally, many of these mitigation activities are high priority because they address considerations across multiple hazards and across jurisdictional boundaries.

**TABLE 5-4-3-1. HAZ-MAT RELEASE (FIXED FACILITY) MITIGATION ACTIVITIES**

**TOWN OF CLAY, NEW YORK**

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
8.1 Regularly review and update emergency dispatch and response procedures and guidelines using the National Incident Management System.	Goal 4, Objective 4-2	H	ToC, OCDEM	TBD	TBD	Public safety concerns, Fire Mutual-Aid and Response Plan	FD, PD	OCDEM
8.2 Prepare and maintain a comprehensive inventory of Haz-Mat facilities in the Town, including locations, types of materials, quantities, on-site response equipment, and contact information to assist responders in the event of a release.	Goal 4, Objective 4-1, 4-2	H	ToC	L	2 years	Public safety concerns; NYSDEC regulation and support	OCDEM	C&MCFD, NYDEC, USEPA
8.3 Inventory current first response equipment and acquire new equipment as necessary, including decontamination equipment.	Goal 4, Objective 4-3	H	Current funding	Current resources	1 year	Emergency preparedness initiatives	FD	OCSOT
8.4 Continue to conduct regular training for first response personnel.	Goal 4, Objective 4-2	H	Federal State Local	\$5,000/year	Ongoing/Annual	Emergency Preparedness Initiatives	FD	OCDEM, NYSEMO, NYSDEC, NYDOT, NYSFPC
8.5 Review and amend, as necessary, current zoning to create and maintain a sufficient buffer between Haz-Mat facilities and the public (residential) based on risk level.	Goal 1, Objective 1-1, 1-4, 1-6; Goal 4, Objective 4-1	H	ToC	L	1 year	TBD	ToC P&D	OCDEM, local police and fire
8.6 Strictly enforce siting of new Haz-Mat facilities in accordance with current and amended land use plans, zoning, and local ordinances.	Goal 1, Objective 1-1	H	ToC	L (to enforce existing codes)	Ongoing	TBD	ToC P&D	ToC Code Enforcement
8.7 Ensure regular and comprehensive inspection and consistent code enforcement at Haz-Mat facilities.	Goal 4, Objective 4-2	H	TBD	L to M (to enforce existing regulation)	Ongoing	USEPA and NYDEC regulation, public safety concerns, local enforcement programs	ToC-Code Enforcement, local police	NYSDEC, USEPA
8.8 Ensure rapid and coordinated response by emergency responders in the event of a hazardous materials spill event by enhancing the Chain of Command for Emergency Response Flow Chart and identifying notification requirements.	Goal 4, Objective 4-2	M	Toc	M	Ongoing	Emergency Preparedness Initiatives	FD	OCDEM, local and county police

TABLE 5-4-3-1. HAZ-MAT RELEASE (FIXED FACILITY) MITIGATION ACTIVITIES

TOWN OF CLAY, NEW YORK

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
8.9 Provide public education and outreach materials regarding the appropriate actions to take in the event of a hazardous material release.	Goal 2, All Objectives	L	Local	\$2,000	2 years	Public-private partnerships	FD	OCDEM, ToC Code Enforcement, NYSEMO
8.9 Enhance public safety through awareness, by releasing timely public service announcements via various media (television, radio) and supplying recommended actions to be taken in the event of a release.	Goal 2, All Objectives	L	Current resources	Current budgets	Ongoing	Newspapers, Radio, Television, PSAs	ToC	OCHD

Notes:

C&MCFD	Clay & Moyers Corners Fire Dep'ts.	NYSEMO	New York State Emergency Management Organization	P&D	Planning and Development
FD	Fire Departments			PD	Police Departments
N/A	Not applicable	OCDEM	Onondaga Cty. Dep't. of Emergency Mgt.	PSAs	Public Service Announcements
NFPA	National Fire Protection Association	OCFIU	Onondaga Cty. Fire Investigation Unit	ToC	Town of Clay
NYSDEC	New York State Dep't. of Env. Cons.	OCHD	Onondaga County Health Department	USEPA	United States Environmental Protection Agency
NYSDOT	New York State Department of Transportation	OCSOT	Onondaga County Special Operations Team		

**TABLE 5-4-3-2. MULTI-HAZARD MITIGATION ACTIVITIES**

**TOWN OF CLAY, NEW YORK**

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
9.1 Collect all outstanding data identified in Section 4.4 of this plan and develop methodologies for estimating potential losses for building stock and critical inventory for other hazards in the future.	All Goals, All Objectives	H	Federal, State, County, Local	M to H	Ongoing with revised plan every 5 years	HMGP, Hazard Mitigation Plan, Risk Management	ToC PG	All agencies with data
9.2 Review existing county plans and efforts to ensure consistency with this plan's goals and objectives.	Goal 1, Objectives 1-7 and 1-8	H	Existing budget	L	1 year	Section 2 of the Mitigation Plan	ToC PG	ToC P&D
9.3 Integrate the goals, objectives, and activities from this plan into existing regulatory documents and programs, where appropriate (including zoning ordinances, building codes, and land use policies).	Goal 1, All Objectives Goal 4, Objective 4-1	H	Existing budget	L to M	1 year for review, longer to integrate	Section 2 of the Mitigation Plan	ToC P&D	Local agency programming
9.4 Identify and pursue funding opportunities to develop and implement local and county mitigation activities.	All Goals, All Objectives	H	Existing budgets; various Federal agencies as sources (FEMA, NOAA)	L (to identify and pursue)	Ongoing	Section 2 of the Mitigation Plan and Existing grant programs	ToC PG	Supporting agencies (See Section 2)
9.5 Continue to develop inventory of at-risk buildings and infrastructure.	Goal 1, Objective 1-1	H	Federal, state, County, local	L to M	Ongoing	HMGP, Hazard Mitigation Plan, Risk Management	ToC PG	All agencies with data
9.6 Develop and/or update GIS data, including Plainimetrics (buildings, roads, etc.)	Goal 1, Objective 1-1; Goal 2, Objective 2-3	H	Existing budget	L to M	6 months	OCGIS	OCGIS	ToC P&D
9.7 Develop data layers for flood plains (including revisions), and inundation mapping after actual events.	Goal 1, Objective 1-1; Goal 2, Objective 2-3	H	Existing budget	L to M	6 months	OCGIS	ToC P&D	SOCPA - GIS
9.9 Develop evacuation plans, routes, policies, and procedures for the full range of contingencies and geographic areas of the town.	Goal 4, Objective 4-4	H	Federal, state, County, local	\$70,000	3 years	Interagency cooperation	ToC	OCDEM , FD, PD, DOT

**TABLE 5-4-3-2. MULTI-HAZARD MITIGATION ACTIVITIES**

**TOWN OF CLAY, NEW YORK**

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
9.10 Enhance and centralize information needed to support future hazard mitigation planning and address any security and data management concerns.	All Goals, All Objectives	H	Federal, state, County, local	L	Ongoing	Interagency cooperation, DHS-related efforts	ToC PG	OCDEM, NYSEMO
9.11 Formalize hazard mitigation as a factor in community development planning activities, including business development and long-range regional growth planning.	Goal 1, Objectives 1-7 and 1-8	H	County, local	\$25,000	Ongoing	Land use, code enforcement, zoning	ToC Town Council	SOCPA, local business leaders
9.12 Conduct a local and state capability needs assessment in order to identify the feasibility and funding sources for mitigation activities.	All Goals, All Objectives	H	TBD	\$2,000	6 months	Interagency Cooperation	ToC PG	See Table 2.3 – all agencies
9.13 Integrate the hazard mitigation Planning Group with the efforts of the Onondaga County Emergency Management.	Goal 1, Objective 1-8; Goal 4, Objective 4-2	H	N/A	N/A	1 year	TBD	ToC PG	OCDEM
9.14 Assign roles to emergency response hierarchy and structure.	Goal 4, Objective 4-2	H	Local	L	1 year	TBD	ToC FD/PD	OCDEM
9.15 Update the Emergency Action Plan to include and implement the ICS and NIMS.	Goal 4, Objective 4-2	H	Local	L	1 year	ToC EMP, OC EMP	ToC	OCDEM, NYSEMO
9.16 Participate in future training for all agencies in FEMA courses, specifically Incident Command System 100 and Independent Study 700.	Goal 4, Objective 4-2	H	Local	L	Ongoing	ToC EMP, OC EMP	ToC	OCDEM, NYSEMO
9.17 Participate in the Highway Watch Program (HWW).	Goal 2, Objective 2-1 Goal 3, Objective 3-2	H	NTSA	M	2 years		ToC HD	PD
9.18 Enhance strategies for debris management after hazard events.	Goal 3, Objective 3-1 Goal 4, Objectives 4-2 and 4-3	M	TBD	L	1 year	Emergency Preparedness	ToC HD	OCDEM / NYSEMO

TABLE 5-4-3-2. MULTI-HAZARD MITIGATION ACTIVITIES

TOWN OF CLAY, NEW YORK

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
9.19 Develop SOPs for collecting loss and damage information immediately after a hazard event to assist with future risk assessment and mitigation planning.	Goal 2, Objective 2-3	H	Local	L	1 year	Community Technology Initiatives	ToC HD	OCDEM, NYSEMO
9.20 Develop public and private partnerships to foster hazard mitigation program coordination and collaboration in Onondaga County. Continue public involvement efforts to foster communication and collaboration between County and the Town.	Goal 3, All Objectives	H	TBD	L to M	Ongoing	Public Private Partnership	OCDEM	Local government
9.21 Where applicable, develop mapping of hazard areas for each hazard to assist existing or planned development projects to determine how the hazards will affect future development and could impact losses and emergency needs.	Goal 1, Objectives 1-4, 1-5, and 1-6	H	Current funding	N/A	1 year	OCGIS	ToC P&D	SOCPA - GIS
9.22 Continue support of the Onondaga County Emergency Planning Committee.	Goal 1, Objective 1-8; Goal 3, Objective 3-1; Goal 4, Objective 4-2	H	Current funding	N/A	Ongoing	OCDEM	OCDEM	All Agencies
9.23 Identify, improve, and sustain collaborative programs focusing on the real estate and insurance industries, public and private sector organizations, and individuals to avoid activity that increases risk from hazards.	Goal 3, All Objectives	M	Existing budgets	L	1 year	Interagency Cooperation, Public-Private Partnerships, insurance programs for hazard mitigation, NFIP, CRS, ToC HMP	ToC P&D	Local government
9.24 Increase communication and cooperation to improve relationship between County and highway departments so emergency response is more efficient and coordinated.	Goal 4, Objectives 4-2 and 4-4	M	TBD	L	Ongoing	Interagency Coordination	ToC HD	OCDEM

TABLE 5-4-3-2. MULTI-HAZARD MITIGATION ACTIVITIES

TOWN OF CLAY, NEW YORK

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
9.25 Strengthen emergency services preparedness and response by linking emergency services with hazard mitigation programs.	Goal 4, Objective 4-2	M	Federal, state, local	L to M	Ongoing	OCDEM, SEMO	OCDEM	FD, PD
9.26 Develop, enhance, and implement education programs aimed at mitigating hazards and reducing the risk to citizens, public agencies, private property owners, businesses, and schools.	Goal 2, All Objectives	M	Local	L to M	Ongoing	Public Private Partnerships, NFIP, CRS, ToC FHMP	SOCPA	SOARC, ToC Board of Education, Private
9.27 Include a reference in the Onondaga County Comprehensive Emergency Management plan Risk Reduction Section to the Town of Clay Hazard Mitigation Plan.	Goal 1, Objective 1-8	M	Local	L	1 year	County Comprehensive Emergency Management plan, All Hazard Mitigation Plan	OCDEM	ToC PG
9.28 Distribute existing safety publication that contains important information regarding personal preparedness and disaster loss prevention.	Goal 2, All Objectives	M	Grants	\$40,000	1 year	County Comprehensive Emergency Management Plan	OCDEM	ARC, FEMA, NYSEMO
9.29 Develop and maintain a mitigation planning webpage.	Goal 2, All Objectives	M	TBD	L	Ongoing	TBD	ToC EM	ToC
9.30 Promote the use of NOAA's All Hazards radios for early warning and post event information.	Goal 2, All Objectives	M	Grants	\$55/radio	1 year	OCDEM	OCDEM	FD, PD
9.31 Adopt the most recent International Building Code.	Goal 1, Objective 1-5	M	State, local	L	Ongoing	Code Enforcement, Zoning	ToC P&D	Code Enforcement
9.32 Improve code enforcement and inspection services.	Goal 1, Objective 1-5	M	County, local	L to M	TBD	Code Enforcement, Zoning	ToC P&D	Code Enforcement
9.33 Continue to promote retrofits and safety precautions for mobile homes for flood and severe wind events.	Goal 1, Objectives 1-2 and 1-3, and Goal 2, All Objectives	M	Federal, state, local	L to M	Ongoing	ToC FHMP, HMGP, NFIP	ToC P&D	FEMA, NYSEMO, OCDEM

**TABLE 5-4-3-2. MULTI-HAZARD MITIGATION ACTIVITIES**

**TOWN OF CLAY, NEW YORK**

Mitigation Activity	Evaluation Against Goals and Objectives	Priority	Funding Source	Budget	Implementation Timeline	Existing Policies, Programs, and Resources to Support Implementation	Lead Agency	Support Agency
9.34 Identify additional locations to be emergency shelters as necessary. Enhance the ARC shelter database, esp. about small shelters (not schools) in rural towns.	Goal 4, All Objectives	M	ARC	\$15/day/person	Ongoing	ARC	ARC	All jurisdictions
9.35 Use technical knowledge of natural ecosystems, natural hazards, and other hazards to link natural resource management and land use organizations to mitigation activities and technical assistance.	Goal 1, Objective 1-7 Goal 3, Objective 3-1	L	Federal, state, local	L	1 year	Land use, Natural Resource Management	OCSWCD	NYSDEC, local government
9.36 Create centralized library of all documents used and required for the mitigation plan.	All Goals, All Objectives	L	Local	Current	1 year	Local government, all agencies	ToC P&D	ToC PG
9.37 Purchase/upgrade the following equipment: road barriers, flashing beacon lights, work zone signs, PPE vests, flagger signs, hand tools, 4-wheeler for transportation at major construction and emergency-related sites.	Goal 4, Objective 4-3	L	Federal, state, local	M	Ongoing		ToC HD	County DPW, OCDEM

**Notes:**

ARC	American Red Cross	ICS	Incident Command System	OCSWCD	Onondaga County Soil and Water Conservation District
CRS	Community Rating System	N/A	not applicable	P&D	Planning and Development
DOT	Department of Transportation	NFIP	National Flood Insurance Program	PD	Police Department
DPW	Department of Public Works	NIMS	National Incident Management System	PG	Planning Group
FD	Fire Department	NOAA	National Oceanic and Atmospheric Administration	PPE	Personal Protective Equipment
FEMA	Federal Emergency Management Agency	NYSEMO	New York State Emergency Management Organization	SOCPA	Syracuse Onondaga County Planning Agency
FHMP	Flood Hazard Mitigation Program			TBD	to be determined
GIS	Geographic Information Systems	OCDEM	Onondaga County Dep't. of Emergency Mg't.	ToC	Town of Clay
HMGP	Hazard Mitigation Grant Program				

The high priority mitigation activities are recommended for implementation before lower priority mitigation activities. The high priority mitigation activities are presented in Table 5-4-3-1 and generally focus on the following:

- Review and coordination with existing programs and plans, especially evacuation plans.
- Continued and enhanced training for Town employees in all appropriate areas of awareness, preparedness, response and incident management.
- Refinement of inventory, GIS, mapping, and other general mitigation planning data and resources.
- Communication programs to educate the public regarding hazards and mitigation.
- Defining the lead agency for specific emergencies for effective command and control.
- Enhance cooperation with Onondaga County Human Needs and Shelter tasks forces.

The Town of Clay will implement the high-priority mitigation activities by leveraging existing funds and seeking new funding sources. The specific timeframes; responsible parties; and existing policies, programs, and resources to support implementation of each high-priority mitigation activity are identified in Table 5-4-3-1.

#### **5.4.4 Next Steps**

This draft plan was first submitted for NYSEMO's review in July 2005. The mitigation plan development effort will continue through a number of ongoing efforts that will continue through plan finalization in 2005. Activities will include:

- The plan will be provided for NYSEMO input and input and suggestions for revisions will be incorporated.
- Public input will be obtained and incorporated.
- Additional historic cost data and refinement of mitigation activities based on input from the public, NYSEMO, and the Planning Group, towns, and county.
- Subsequent Planning Group meetings and meetings with NYSEMO will be held, as necessary as the plan is revised and finalized.
- Finally, the team will discuss the process for regular evaluation and re-prioritization of the mitigation activities and documentation of implementation and accomplishments.

The input of all parties will be reviewed by the Planning Group, documented, discussed, and used to prepare a final plan acceptable for adoption by all of the participating jurisdictions and approval by NYSEMO as a compliant, hazard mitigation plan meeting the state and federal requirements for mitigation planning.