



**FEMA**

# Town of Clay Hazard Mitigation Plan

December, 2005



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**the  
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A TETRATECH COMPANY group



**Town of Clay - Hazard Mitigation Plan**  
**December, 2005**



**TETRA TECH EM INC.**

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## SECTION 1 -INTRODUCTION

In response to the requirements and deadlines of the Disaster Mitigation Act of 2000 (DMA 2000), the Town of Clay has developed this Hazard Mitigation Plan (“Mitigation Plan” or the “Plan”). DMA 2000 amends the Stafford Act and is the most recent legislation designed to improve planning for, response to, and recovery from disasters by requiring state and local entities to have all hazard mitigation plans in place by November 2004. The Federal Emergency Management Agency (FEMA) has issued guidelines for all hazard mitigation plans under DMA 2000 regulation. The New York State Emergency Management Office (NYSEMO) is also supporting the development of the plan.

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

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

Specifically, DMA 2000 requires that states with support from local governmental agencies develop hazard mitigation plans to prepare for and reduce the potential impacts of natural hazards. DMA 2000 is intended to facilitate cooperation between state and local authorities, prompting them to work together. This enhanced planning will better enable local and state governments to articulate accurate needs for mitigation, resulting in faster allocation of funding and more effective risk reduction projects.

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

In the early 1990s a new federal policy regarding disasters began to evolve. Rather than simply reacting whenever disasters strike communities, the federal government would encourage communities to first assess their vulnerability to various disasters, and then take actions to reduce or eliminate potential risks. The logic is simply that a disaster resistant community can rebound from a natural disaster with less loss of property or human injury, at much lower cost, and consequently more quickly. Moreover other costs associated with disasters, such as the time lost from productive activity by business and industries, are minimized.

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

DMA 2000 provides an opportunity for States, Tribes and local governments to take a new and revitalized approach to mitigation planning. DMA 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act by repealing the previous mitigation planning provisions (Section 409) and replacing them with a new set of requirements (Section 322). This section sets forth the requirements that communities evaluate natural hazards within their respective jurisdictions and develop an appropriate plan of action to mitigate those hazards, while emphasizing the need for State, Tribal and local entities to closely coordinate mitigation planning and implementation efforts.

The amended Stafford Act requires that the community identify potential hazards to the health, safety and well being of its residents and identify and prioritize actions that can be taken by the community to mitigate those hazards—before disaster strikes. For communities to remain eligible for hazard mitigation assistance from the federal government, they must first prepare a hazard mitigation plan (this plan).

Responsibility for fulfilling the requirements of Section 322 of the Stafford Act and administering the FEMA Hazard Mitigation Program has been delegated to the State of New York, specifically to NYSEMO.

Copies of the applicable federal and state regulations may be found at Appendix G.

## Organizations Involved in the Mitigation Planning Effort

The intent of the Town of Clay is to implement the plan with full coordination among the various departments, organizations and groups within the Town, as well as between relevant entities in the County and State. By coordinating these efforts, the various stakeholders have already established the communication and relationships necessary for mitigation planning and the many mitigation actions included in Section 5.0.

Primary mitigation planning participants include representatives from the following:

- Town of Clay Department of Planning and Development
- Town of Clay Emergency Management
- Town of Clay Highway Department
- Town of Clay Town Council
- Town of Clay Police Department
- Clay Fire Department
- Moyers Corners Fire Department
- Horseshoe Island Homeowner's Association
- Clairmont & FourSeasons Homeowner's Association
- Bayberry Community Association
- Liverpool School District
- North Syracuse School District
- Onondaga County Department of Emergency Management
- New York State Emergency Management Office

## Multiple Agency Support for Hazard Mitigation

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

This Hazard Mitigation Plan was prepared in accordance with the regulations and guidance listed in the text box below.

Acts, laws, and guidance used to support plan development include:

DMA 2000 (Public Law 106-390, October 30, 2000)

44 CFR Parts 201 and 206 (incl. Feb. 26, 2002, Oct. 1, 2002, Oct. 28, 2003, and Sept. 13, 2004 Interim Final Rules)

FEMA. 2004. "How-To Guide for Using HAZUS-MH for Risk Assessment." FEMA Document No. 433. February.

## Planning Process

The planning process and findings are to be documented in local all hazard mitigation plans. To support the planning process to develop this all hazard mitigation plan, the Town of Clay has accomplished the following:

- Developed a planning group
- Identified hazards of interest and hazards of concern
- Profiled these hazards
- Estimated inventory at risk and potential losses associated with these hazards
- Developed mitigation strategies and goals that address the various hazards that impact the area
- Developed mitigation plan maintenance procedures to be executed after obtaining conditional approval of the plan from NYSEMO and FEMA.

Initially, a Hazards New York (HAZNY) analysis, developed by NYSEMO and the American Red Cross to support consistent identification and ranking of hazards across the state, was conducted. The analysis process asks specific questions about potential hazards in a community and records and evaluates the responses to these questions to prepare a preliminary score for each hazard. This score helps the community to develop an initial ranking of the priority of each hazard. This plan used HAZNY as a key input to identify and profile hazards; this process included a consideration of background and local conditions, historic frequency and probability of occurrence, severity, historic losses and impacts, and designated hazard areas. It also identified the potential impact, onset, frequency, hazard duration, cascading effects and recovery time for each hazard. Additional information on the methodology and results associated with HAZNY are discussed in Section 4.2.

Through the HAZNY process, the Town of Clay was able to develop a ranked (prioritized) list of those hazards that are of greatest concern to the community (the “hazards of concern”), from a comprehensive list of hazards that may affect an area (the “hazards of interest”).

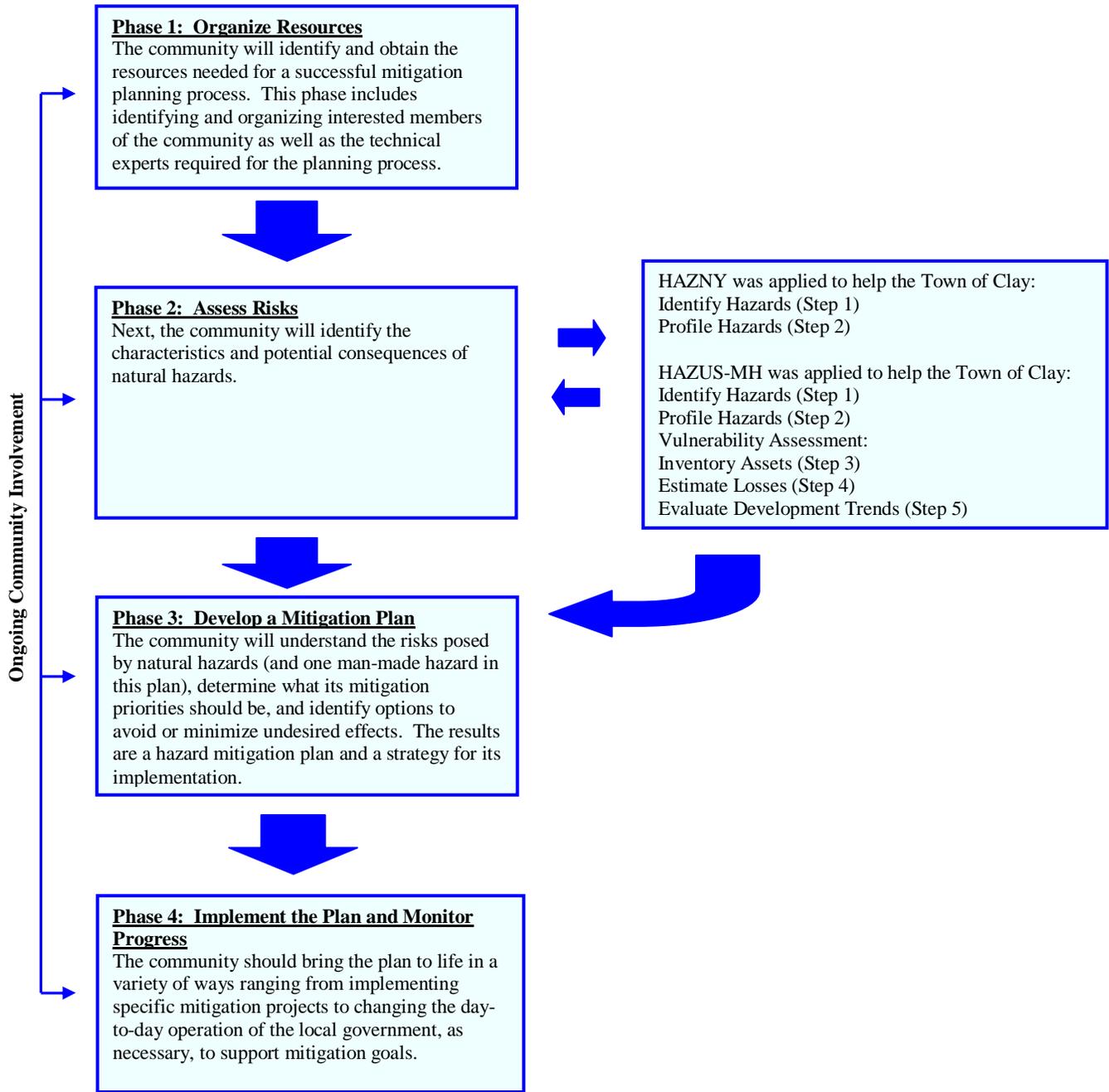
To address the requirements of DMA 2000 and better understand their potential vulnerability to and losses associated with hazards of concern, the Town of Clay, through their consultant, utilized the Hazards U.S. – Multi-Hazard (HAZUS-MH) software package (discussed in greater detail later in this section) supplemented by local data where applicable to support the efforts listed above. HAZUS-MH assesses risk, estimates losses from natural hazards, and produces outputs that will assist state, local governments, communities, and private sectors in implementing emergency response, recovery, and mitigation programs, including multi-hazard mitigation plans.

As required by DMA 2000, the Town of Clay has informed the public and provided opportunities for public comment and input in the planning process. In addition, numerous agencies and stakeholders have participated as core or support members in this process providing input and expertise throughout the planning process.

This Hazard Mitigation Plan documents the process and outcomes of the Town of Clay’s efforts. Additional information on the planning process is included in Sections 2.0, Mitigation Planning Process. Documentation that the prerequisites for plan approval have been met is included in Section 3.0, Plan Adoption.

The plan follows the four-phase planning process recommended by FEMA and summarized in Figure 1-1. As shown on Figure 1-1, the Town of Clay therein incorporated the use of HAZUS-MH to support the risk assessment phase of this process.

Figure 1-1. Town of Clay Hazard Mitigation Planning Process



## Benefits of Mitigation Planning

Planning ahead helps to prepare citizens and government agencies to better respond when disasters occur. Also, mitigation planning allows the Town of Clay to remain eligible for mitigation grant funding for mitigation projects that will reduce the impact of disasters should one occur. The long-term benefits of mitigation planning include:

- An increased understanding of hazards faced by communities
- More sustainable and disaster-resistant communities
- Financial savings through partnerships that support planning and mitigation efforts
- Focused use of limited resources on hazards that have the biggest impact on a community
- Reduced long-term impacts and damages to human health and structures and reduced repair costs

## About Hazards U.S. – Multi-Hazard (HAZUS-MH)

In 1997, FEMA developed a standardized model for estimating losses caused by earthquakes, known as Hazard U.S. or HAZUS. HAZUS was developed in response to the need for more effective national-, state-, and community-level planning and the need to identify areas that face the highest risk and potential for loss. HAZUS was expanded into a multi-hazard methodology, Hazards U.S. Multi-Hazard (HAZUS-MH) with new models for estimating potential losses from wind (hurricanes) and flood (riverine and coastal) hazards. HAZUS-MH is a Geographic Information System (GIS)-based software tool that applies engineering and scientific risk calculations that have been developed by hazard and information technology experts to provide defensible damage and loss estimates. These methodologies are accepted by FEMA and provide a consistent framework for assessing risk across a variety of hazards. It supports the evaluation of hazards and assessment of inventory and loss estimates for these hazards.

HAZUS-MH uses GIS technology to produce detailed maps and analytical reports that can describe a community's direct physical damage to building stock, critical facilities, transportation systems and utility systems. The damage reports can include induced damage (inundation, fire, threats posed by hazardous materials and debris) and direct economic and social losses (casualties, shelter requirements, and economic impact) depending on the hazard and available local data. HAZUS has an open data architecture and it can warehouse community GIS data in one central location. The use of this software also promotes consistency of data output now and in the future and standardization of data collection and storage.

More information on HAZUS-MH is available at <http://www.fema.gov/hazus>.

## Organization of this Mitigation Plan

This plan was organized in accordance with FEMA and NYSEMO guidance. The remainder of this Hazard Mitigation Plan includes the following sections and appendices:

**Section 2, Planning Process**, contains a short introduction to the plan, a description of the plan methodology and development process, and a list of participating members of the planning, summary of planning group activities, description of involved stakeholders including state and local agencies and public participants, list of stakeholder and public involvement efforts, and a description of how this plan will be incorporated into existing programs.

**Section 3, Plan Adoption**, contains information regarding the adoption of the mitigation plan by the Town of Clay.

**Section 4, Risk Assessment**, presents (1) hazard identification, (2) hazard profiles, and the vulnerability assessment, which includes (3) an inventory of assets, (4) loss estimates, (5) evaluation of the potential impact of development trends, (6) results of the analysis, and (7) presents loss estimates to support a relative ranking of the hazards. Further, it describes the status of local data and planned steps to improve local data to support mitigation planning.

**Section 5, Mitigation Strategies**, contains information regarding the mitigation goals and multi-hazard mitigation action items pertaining to the Town of Clay. Section 5 also includes information regarding how mitigation measures will be prioritized, implemented, and administered within the Town.

**Section 6, Plan Maintenance Procedures**, describes the system the Town of Clay has established to monitor the mitigation plan; provides a description of how, when, and by whom the mitigation plan and mitigation actions will be evaluated; presents the criteria used to evaluate the plan and mitigation actions; and explains how the plan will be maintained and updated.

**Appendix A, Resolution of Plan Adoption**, presents the documentation that supports the plan approval signatures included on page i of this plan. **Appendix B, Glossary**, includes a glossary of definitions used throughout the plan. **Appendix C, Data Summary Matrix**, provides a summary table of local data collected and assessed for the pilot project. **Appendix D, Federal Mitigation Programs, Activities, and Initiatives**, provides a summary of federal funding options that could be used to fund mitigation activities. **Appendix E, HAZUS-MH Risk Assessment Tool Hurricane Results**, contains the risk assessment results for the hurricane hazard (part of the severe storm hazard for this plan). **Appendix F, HAZUS-MH Risk Assessment Tool Flood Results**, contains the risk assessment results for the flood hazard. **Appendix G, Applicable Federal and State Regulations**, contains copies of the federal and state Acts and rules that apply to hazard mitigation planning within this jurisdiction.

## SECTION 2 - PLANNING PROCESS

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This section includes a description of the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

To ensure that the plan met the requirements of the DMA 2000, the approach to the planning process and plan documentation was developed to achieve the following two goals:

1. The plan would consider all natural hazards facing the community, thereby satisfying the natural hazards mitigation planning requirements specified in DMA 2000. In addition, selected human-caused and technological hazards of concern would be evaluated.
2. The plan would be developed following the process outlined by DMA 2000, FEMA regulations, and FEMA and NYSEMO guidance. Following this process would ensure all the requirements are met and would support the plan review.

The Town of Clay Hazard Mitigation Plan was written using the best available information obtained from a wide variety of sources. Throughout the plan development process, a concerted effort was made to gather information from participating agencies, municipal departments and staff as well as stakeholders, federal and state agencies, members of the local business and industry community, and the citizens of the Town of Clay. The Planning Group solicited information from local agencies and individuals with specific knowledge of certain natural hazards and past historical events, as well as planning and zoning codes, ordinances, and recent planning decisions. The natural hazard mitigation strategies contained within this plan have been developed through a cooperative planning process involving state, county and local agencies, municipal officials and staff, and the citizens of the Town of Clay.

This section of the Town of Clay Hazard Mitigation Plan describes the mitigation planning process, including (1) core Planning Group involvement and efforts; (2) extended Planning Group support; (3) stakeholder and public involvement; and (4) integration of existing data, plans, and information.

### **2.1 Core Planning Group Involvement and Efforts**

The Town of Clay, the largest municipality in Onondaga County (first in population, third in land area), in conjunction with Onondaga County Department of Emergency Management, provides protection and safety for all residents. The Town of Clay has a diverse topography, and includes waterfront, farmland, multi-families, commercial and residential tracts. Town of Clay decided to participate in this plan to try to address life, safety, property and environmental concerns based on past disaster declarations. It was decided that the Planning Group should include all participants from agencies that provided assistance to the Town of Clay in past disasters. The Town of Clay Supervisor, Town Board, and the Town Emergency Management completed a Letter of Intent for the purpose of developing a Hazard Mitigation Plan on July 30, 2003. The Pre-Disaster Mitigation Grant FY03 was approved by NYSEMO on February 24, 2004. The town then formulated a group of key town agencies and residents now known as the Town of Clay Hazard Mitigation Planning Group (“Planning Group”).

The Planning Group was responsible for the following tasks:

- Establish plan development goals
- Establish a timeline for completion of the plan
- Ensure that the plan meets the requirements of DMA 2000 and FEMA and NYSEMO guidance

- Solicit and encourage the participation of township agencies, a range of stakeholders, and citizens in the plan development process
- Assist in gathering information for inclusion in the plan, including the use of previously developed reports and data
- Organize and oversee the public involvement process
- Develop, revise, adopt, and maintain the plan

The Town of Clay Hazard Mitigation Planning Group includes representatives from the Town of Clay and citizen interest groups. Members of the Planning Group, with support from municipal staff and other local organizations, identified and profiled hazards; determined hazard rankings; estimated potential exposure or losses; evaluated development trends and jurisdiction-specific risks; and developed appropriate mitigation strategies, goals, and actions at the local level.

Additional input and support was obtained from a range of organizations and through public involvement (Section 2). Oversight was provided by the Town of Clay Hazard Mitigation Planning Group, which includes representatives from the Town of Clay Emergency Management, Highway Department, and members of town council and emergency response services.

The Planning Group convened on selected dates that best met the schedules of the Planning Group members. During these meetings, the group gathered and shared information, identified hazards, assessed risks, identified critical facilities, assisted in developing mitigation strategies, and provided continuity through the plan development process to ensure that jurisdiction-specific natural hazards vulnerability information and mitigation strategies were also incorporated into the plan. In between these meetings, group members communicated regularly by e-mail and phone.

After completion of the plan, the Planning Group will remain an active entity. The Planning Group will meet on an annual basis in the first quarter each year. In addition, members of the Planning Group will convene supplementary meetings on an as-needed basis. The Planning Group will also provide direction and oversight and otherwise assist with the annual plan evaluation process.

As of December 2005, members of the Town of Clay Planning Group included:

- Mark Rupprecht, Supervisor, Town of Clay
- Owen Honors, Commissioner Public Safety, Town of Clay
- Joe Rinefierd, Onondaga County Department of Emergency Management
- Robert Edick, Councilman, Town of Clay
- Tom Weaver, Highway Superintendent\Emergency Manager, Town of Clay
- Victoria Rinefierd, Deputy Emergency Manager
- Lt. Fred Corey, Town of Clay Police Department
- Cindy Heid, Assistant Commissioner of Planning, Town of Clay
- Doug Wickman, Town Engineer, (C&S Engineering)
- Paula Caron, Deputy Comptroller, Town of Clay
- Gregory Shaffer, President, Moyers Corners Fire Department
- Ken Stach, Fire Chief, Clay Fire Department
- Maryann Manley, Horseshoe Island Homeowner's Association
- Russ Mitchell, Clairmont & Four Seasons Homeowner's Association
- June Baycura, Bayberry Community Association

The names of auxiliary members of the Planning Group are included below:

- Jim Rowley, Councilman, Town of Clay
- Anne Stenham, Administrative Assistant, Town of Clay

- Lawrence Butler, Director of School Safety, North Syracuse Schools
- Michael McCarthy, Director of School Safety, Liverpool Schools

Each year the Town of Clay Emergency Managers attend New York State Disaster Preparedness Conference (DPC) held in various locations across the state. During the conference training is provided in the following areas:

- Flood mitigation programs, application and eligibility of the program,
- Disaster planning, maintenance of existing programs, development of new programs.(winter storms, flooding, etc),
- Developing partnerships with other agencies (state and local) to network for information sharing (County and State Health Department, County Emergency Management Department, Highway Association, NYSDEC, NYSEMO),
- GIS development for tracking the Town of Clay infrastructure in planning and development.

By attending these conferences the attendees have been able to bring back and apply vital information on grant opportunities, disaster planning, and agency networking information thus allowing the Town of Clay to better position itself to protect its citizens and infrastructure now and into the future. The Town also participates in the Federal 404 Mitigation Program.

Not all Planning Group members were able to attend all Planning Group or public participation meetings; however, notes were distributed following each meeting. Much communication between the Planning Group members also occurred through electronic mail (e-mail), which helps to maintain communication between meetings. Each member of the Planning Group reviewed the plan and supported interaction with the Town of Clay Emergency Management, other stakeholders; and assisted public involvement efforts as discussed in Sections 2.2, 2.3, and 2.4, respectively. Table 2-1-1 presents a summary of Planning Group efforts during the development process of this mitigation plan. Additionally, the table identifies which DMA 2000 requirements the activities satisfy.

Table 2-1-1. Summary of Planning Group Efforts

Date	Activity/DMA 2000 Requirement	Key Outcomes/Participants
10/02/03	Establishment of Planning Group (1a, 2)	<ul style="list-style-type: none"> <li>▪ Participants: Mark Rupprecht (Town Supervisor), Victoria Rinefierd (Deputy Emergency Manager), Tom Weaver (Highway Superintendent\Emergency Manager), Robert Edick (Town Council), Owen Honors (Commissioner Public Safety), Joe Rinefierd (Onondaga County Emergency Management), Paula Caron (Deputy Comptroller), Gregory Shaffer (President, Moyers Corners Fire Department), Ken Stach (Chief, Clay Fire Department), Richard Mercer (Fire Marshall, Town of Clay), Lawrence Butler (Director School Security &amp; Safety North Syracuse School District), Michael McCarthy (Director School Security Liverpool School District), MaryAnn Manley (Horseshoe Island Homeowner's Association).</li> <li>▪ Introduction and overview of the mitigation planning process</li> </ul>
3/24/04	Town Board Authorization (1a, 2)	<ul style="list-style-type: none"> <li>▪ Town Board entered into an agreement with NYSEMO for the preparation of the Hazard Mitigation Plan.</li> <li>▪ Advertise and search for consultant to prepare the plan</li> </ul>
8/17/2004	Contracted with Consultant	<ul style="list-style-type: none"> <li>▪ Final scope of services approved and contract signed with consultant to assist in development of mitigation plan.</li> </ul>

Date	Activity/DMA 2000 Requirement	Key Outcomes/Participants
9/16/2004	Kick-Off Meeting (1b, 2, 3a, 3c)	<ul style="list-style-type: none"> <li>▪ Participants: Mark Rupprecht (Town Supervisor), Victoria Rinefierd (Deputy Emergency Manager), Tom Weaver (Highway Superintendent\Emergency Manager), Robert Edick (Town Council), Joe Rinefierd (Onondaga County Emergency Management), Lt. Fred Corey (Police Department, Town of Clay), Gregory Shaffer (President, Moyers Corners Fire Department), Ken Stach ( Chief, Clay Fire Department), David Tessier (Commissioner, Planning &amp; Development, Town of Clay), Michael McCarthy (Director, School Security Liverpool School District), MaryAnn Manley (Horseshoe Island Homeowner's Association), June Baycura (Bayberry Community Association), Don Baycura (Bayberry Community Association), Russ Mitchell (Clairmont Four Seasons Homeowner's Association, Jonathan Raser (Tetra Tech), Stephen Gheen (Thomas Group), Thomas Abbati ( Mitigation Planner, NYSEMO), Doug Wickman (Town Engineer, C&amp;S), Jim Rowley (Town Council), Anne Stenham (Administrative Assistant, Town of Clay), Charles Wright (NYSEMO, Region 4 Director), Joe Rinefierd (Onondaga County Department of Emergency Management) .</li> <li>▪ Tetra Tech provided an overview of the DMA 2000 process and highlighted certain data needs and mitigation strategy elements that the Planning Group and stakeholders should be aware of.</li> <li>▪ The data matrix was presented and sources of data were identified.</li> </ul>
9/29/04	HAZNY Working Session (2, 3a, 3b)	<ul style="list-style-type: none"> <li>▪ Participants: Mark Rupprecht (Town Supervisor), Victoria Rinefierd (Deputy Emergency Manager), Robert Edick (Town Council), Maryann Manley (Horseshoe Island Association), Steve Gheen (The Thomas Group), Anne Stenham (Administrative Assistant, Town of Clay), Bud Lepinske (Town of Clay Historian), Doug Wickman ( Town Engineer, C&amp;S), Joe Rinefierd (Onondaga County Department of Emergency Management), Ernest Casale (Past Town Supervisor), Thomas Weaver (Highway Superintendent\Emergency Manager), Lt. Peter Lavalle (Lt. Onondaga County Sheriff's), Lt. Fred Corey (Lt. Town of Clay Police), Sgt. Tom Rogers ( NYS Police), Steven Eidt ( NYSDEC), Ken Stach (Chief, Clay Fire Department), Gregory Shaffer (President, Moyers Corners Fire Department), Dave Morford (Meteorologist NWS), Ron Raymond (Planner NYSEMO), Greg Firenze (Coordinator, NYSEMO), Charles Wright (NYSEMO, Regional 4 Director), Cindy Heid (Assistant Commissioner of Planning, Town of Clay), Russ Mitchell (Clairmont-Four Seasons Homeowner's Association), June Baycura (Bayberry Community Association), Richard Mercer (Fire Marshall, Town of Clay)</li> <li>▪ Planning Group meets with NYSEMO to conduct a HAZNY analysis for the Town of Clay</li> <li>▪ NYSEMO shares information and guidance on plan requirements and public involvement</li> </ul>
12/10/04	Mitigation Strategy Meeting (4a, 4b)	<ul style="list-style-type: none"> <li>▪ Participants: Victoria Rinefierd (Deputy Emergency Manager), Robert Edick (Town Council), Steve Gheen (The Thomas Group), Ron Raymond (Planner, NYSEMO), Gregory Shaffer (President, Moyers Corners Fire Department), Cindy Heid (Assistant Commissioner of Planning Town of Clay), Russ Mitchell (Clairmont-Four Seasons Homeowner's Association), June Baycura (Bayberry Community Association), Eric Hartley (Tetra Tech EM, Inc.)</li> <li>▪ Objectives of the meeting included: (1) brainstorming jurisdiction-specific mitigation strategies for each of the identified hazards, (2) initiating the capability assessment for mitigation strategies, including how the hazard mitigation plan might be incorporated into existing efforts</li> </ul>
1/28/05	Completion and web-distribution of HAZNY Analysis Report (1b, 2, 3a, 3b)	<ul style="list-style-type: none"> <li>▪ Completed HAZNY Analysis Report.</li> <li>▪ Posted Report and explaining text on the Town website: <a href="http://www.townofclay.org">www.townofclay.org</a></li> <li>▪ Solicited Public Response from town residents</li> </ul>
3/24/2005	Planning Group Meeting (4a, 4b)	<ul style="list-style-type: none"> <li>▪ Participants: Victoria Rinefierd (Deputy Emergency Manager), Robert Edick (Town Council), Cindy Heid (Town of Clay Planning and Development), Thomas Weaver (Highway Superintendent\Emergency Manager), Owen Honors (Commissioner of Public Safety).</li> <li>▪ Identification of previous, current or potential mitigation activities/strategies.</li> </ul>

Date	Activity/DMA 2000 Requirement	Key Outcomes/Participants
3/31/2005	Planning Group Meeting (4a, 4b)	<ul style="list-style-type: none"> <li>Participants: Victoria Rinefierd (Deputy Emergency Manager), Cindy Heid (Planning), Tom Weaver (Highway Superintendent, Emergency Manager), Joe Rinefierd (Onondaga County Department of Emergency Management), Robert Edick (Town Council).</li> <li>Further identification of previous, current or potential mitigation activities/strategies.</li> </ul>
5/25/2005	Planning Group Meeting (3a, 3b, 3c, 3d, 3e)	<ul style="list-style-type: none"> <li>Participants: Victoria Rinefierd (Deputy Emergency Manager), Robert Edick (Town Council), Cindy Heid (Assistant Commissioner, Planning and Development), Thomas Weaver (Highway Superintendent/Emergency Manager), MaryAnn Manley (Horseshoe Island Homeowner's Association), Gregory Shaffer (President, Moyers Corners Fire Department), Russ Mitchell (Clairmont-Four Seasons Homeowner's Association), Lt. Fred Corey (Lt. Town of Clay Police Department), Joe Rinefierd (Onondaga County Department of Emergency Management)</li> <li>Review and comments of initial draft hazard identification, hazard profiling and risk assessment.</li> </ul>
6/15/2005	Planning Group Meeting (4a, 4b, 4c)	<ul style="list-style-type: none"> <li>Participants: Victoria Rinefierd (Deputy Emergency Manager), Robert Edick (Town Council), Cindy Heid (Assistant Commissioner, Planning and Development), Thomas Weaver (Highway Superintendent/Emergency Manager), Maryann Manley (Horseshoe Island Association), Ronald Raymond (NYSEMO), Gregory Shaffer (President, Moyer's Corner FD), Russ Mitchell (Clairmont-Four Seasons Homeowner's Association), Lt. Fred Corey ( Lt. Town of Clay Police Department), Jonathan Raser (Tetra Tech EM. Inc.), Doug Wickman (Town Engineer, C&amp;S)</li> <li>Review and comments of initial mitigation strategies section of HMP.</li> </ul>
7/13/2005	Initial Draft of Plan (1b, 2)	<ul style="list-style-type: none"> <li>Planning Group meeting to go over review of first draft of Plan.</li> </ul>
7/29/2005	Submittal of Draft Mitigation Plan to NYSEMO	<ul style="list-style-type: none"> <li>Submittal of draft mitigation plan to NYSEMO with Planning Group comments included.</li> <li>Draft Plan posted to Town website and kept at municipal building with notice placed in local newspaper(s).</li> </ul>
Aug. – Oct. 2005	Public comment and NYSEMO review period	<ul style="list-style-type: none"> <li>NYSEMO review of Draft Plan completed October 24, 2005</li> <li>Public comments received</li> </ul>
Nov. – Dec. 2005	Preparation of Final Mitigation Plan	<ul style="list-style-type: none"> <li>NYSEMO and public comments addressed.</li> <li>Additional data and information incorporated in Plan as available.</li> </ul>
Dec. 2005	Submission of Final Mitigation Plan to NYSEMO and FEMA	<ul style="list-style-type: none"> <li>Draft Final Plan submitted to NYSEMO for submission to FEMA.</li> </ul>

Note: Each number above identifies the DMA 2000 requirement the activity fulfills

1a – Prerequisite – Adoption by the Local Governing Body

1b – Public Participation

2 – Planning Process – Documentation of the Planning Process

3a – Risk Assessment – Identifying Hazards

3b – Risk Assessment – Profiling Hazard Events

3c – Risk Assessment – Assessing Vulnerability: Identifying Assets

3d – Risk Assessment – Assessing Vulnerability: Estimating Potential Losses

3e – Risk Assessment – Assessing Vulnerability: Analyzing Development Trends

4a – Mitigation Strategy – Local Hazard Mitigation Goals

4b – Mitigation Strategy – Identification and Analysis of Mitigation Measures

4c – Mitigation Strategy – Implementation of Mitigation Measures

5a – Plan Maintenance Procedures – Monitoring, Evaluating, and Updating the Plan

5b – Plan Maintenance Procedures – Implementation through Existing Programs

5c – Plan Maintenance Procedures – Continued Public Involvement

## **2.2 Involved Stakeholders in Mitigation Planning**

This section presents (1) state and local agency involvement, and (2) public participation – citizen involvement.

### **2.2.1 State and Local Agency Involvement**

The Town of Clay Planning Group and/or its members meet and communicate with NYSEMO regularly to obtain mitigation planning information and general guidance on Plan preparation. Information regarding hazard identification, risk assessment, and mitigation strategies for this plan was also requested from the following agencies and organizations:

- Cornell University Geographic Information Repository (CUGIR)
- Federal Emergency Management Agency (FEMA)
- Natural Resource Conservation Service (NRCS)
- National Weather Service (NWS)
- National Oceanic and Atmospheric Agency (NOAA)
- New York State Department of Environmental Conservation (NYSDEC)
- New York State Emergency Management Office (NYSEMO)
- Onondaga County Department of Emergency Management
- Onondaga County Soil and Water Conservation District
- Syracuse Onondaga County Planning Agency (SOCPA)
- U.S. Geological Survey (USGS)
- U.S. Department of Agriculture (USDA), Farm Service Agency

### **2.2.2 Public Participation - Citizen Involvement**

In order to facilitate better coordination and communication between the Planning Group and citizens and involve the public in the planning process, it was determined that draft documents should be made available to the public through a variety of venues. The participating partners feel that a plan that is in a printed form (in addition to an on-line format) is valuable because it is familiar, even reassuring, to citizens who have been part of a comprehensive planning process and have suffered losses due to a hazard. The participating partners also feel that community input to the plan by community members will increase the likelihood of hazard mitigation becoming one of the standard considerations in the evolution and growth of the Town.

Towards this effort, the Planning Group has made the following efforts toward public participation in the development and review of the Plan:

The composition of the Planning Group includes representatives from several homeowners groups including the Horseshoe Island Homeowner’s Association (represented by Ms. Maryanne Manley), the Clairmont and Four Seasons Homeowner’s Association (represented by Mr. Russ Mitchell) and the Bayberry Community Association (represented by Ms. June Baycura).

The public may have first learned of the hazard mitigation planning effort through an article in the Syracuse Post-Standard on September 29, 2004, entitled “Clay Works on Plan to Deal with Disasters”. The HAZNY report was posted to the Town’s website ([www.townofclay.org](http://www.townofclay.org)) on January 28, 2005 for public review and comments. To inform the public of the HAZNY report and the ongoing Plan effort, a public announcement of the mitigation plan was made by articles in the local and regional newspapers on February 26<sup>th</sup>, 2005 (Syracuse Post-Standard article entitled “Clay Ranks It’s Potential Disasters”), and on March 10, 2005 (Syracuse Post-Standard article entitled “Designating Disasters”. Comments on the

HAZNY report were made directly to the consultant (Tetra Tech EM, Inc.) via the provided email address (see References).

The initial draft of the Plan was submitted to NYSEMO and FEMA on July 18, 2005. Concurrent to NYSEMO's review of the mitigation plan, the plan shall be posted on the Town's website as well as made available at the municipal building (Planning and Development and Town Clerk's office). Announcement of the plan's availability for public review and comment will be made on the Town of Clay's web-site as well as in local newspapers. Public comment can be made either using the email address(es) provided on the website, or via direct submission to the Town Clerk. Public comments will be received by Cindy Heid (Assistant Commissioner of Planning) who will then submit the comments to the consultant to incorporate into the plan as appropriate.

There will be a second opportunity for public participation for comments on the final mitigation plan that will be submitted to NYSEMO/FEMA. The mitigation plan shall again be provided for public comment [date, to be determined] in the same manner and format as the draft mitigation plan.

## **2.3 Coordination of Planning with Existing Hazard Management and Mitigation Programs**

Local municipalities are charged with the development of local hazard mitigation plans required under Section 322 of the Stafford Act by New York. Therefore, the Planning Group coordinated to develop this mitigation plan. In New York, Article 2B Section 23 authorizes local communities to prepare local disaster plans, based on the contention that local municipalities are most knowledgeable to assess their strengths and weaknesses, opportunities, and constraints. Local governments have intimate knowledge of the local geography, and in a disaster, are the entity on the front lines with personnel and equipment. The Town of Clay is involved in the above program, hence the development of this plan.

Examples of other hazard mitigation programs in which the Town of Clay is involved with are the Flood Hazard Mitigation Program and the National Flood Insurance Program (NFIP). These programs assist the Town of Clay in receiving funding for flood mitigation projects and flood insurance. Data from the Town of Clay, based on participation in these flood-related programs, was incorporated in the risk assessment in Section 4 and resulted in mitigation activities in Section 5. Continued involvement in these flood-related programs will help to administer funds and resources to support this hazard mitigation plan.

### **Flood Hazard Mitigation Grant Program**

The Town of Clay has provided an opportunity to all waterfront residents to participate in the FEMA 404 HMGP. Participation may cover mitigation activities including raising, removing, relocating or replacing structures within flood hazard areas. To date, only one resident on Horsehoe Island Road has taken advantage of participation in this program. The Town of Clay will continue its efforts to inform all waterfront residents of the flood mitigation program.

### **National Flood Insurance Program**

Established in 1968, the National Flood Insurance Program (NFIP) provides federally-backed flood insurance to residents of communities that enact and enforce regulations that more carefully regulate development within floodplain areas. For individual property owners to be eligible to buy the federally-backed flood insurance, their property must be located within a community that participates in NFIP.

For a community to be eligible in NFIP, it must adopt and enforce a floodplain management ordinance to regulate proposed development in floodplains and officially designate a local floodplain coordinator/administrator. The intent of the program is to ensure that new construction does not exacerbate existing flood hazards and is designed to better withstand flooding. The Town of Clay participates in NFIP. The Township has enacted and enforced floodplain management ordinances as required. The community has in place Flood Insurance Rate Maps (FIRM) that at a minimum show floodways, 100-year flood zones and 500-year flood zones, and each has designated their respective building and code enforcement official as the local floodplain coordinator/administrator. Mitigation activities related to this program are included in Section 5 and data from FEMA Region II regarding NFIP Insurance Reports was used in the risk assessment in Section 4.

The NFIP floodplain manager in the Town of Clay is the Commissioner of Planning and Development, who reports directly to the Town Supervisor, who is a member of the Planning Group, and is coordinating the development of this plan. In some cases the NFIP floodplain manager also is a member of the Planning Group.

## Community Rating System

The NFIP has been successful in protecting property owners who acquire flood insurance through the program from catastrophic financial losses due to flooding, and in requiring that new buildings constructed within 100-year flood plains are better protected from flood damage.

In the 1990's, as a way to encourage local governments to increase their standards for floodplain development, the Flood Insurance Administration (FIA) established the Community Rating System (CRS). The goal of this program is to encourage communities, through flood insurance rate adjustments to implement standards above and beyond the minimum required in order to:

- Reduce losses from floods
- Facilitate accurate insurance ratings
- Promote public awareness of the availability of flood insurance

CRS is a voluntary program designed to reward participating jurisdictions for their efforts to create more disaster-resistant communities using the principles of sustainable development and management. By enrolling in CRS, communities can leverage greater flood protection while receiving flood insurance discounts. The Town of Clay currently does not participate in the Community Rating System (CRS) program; however the Town Council is evaluating the feasibility and economics of participation in conjunction with the town engineer. Formal evaluation of participation in the CRS program is included as a potential mitigation activity in Section 5.

Under CRS, communities are rated on a scale of 1 through 10, with Class 1 communities enjoying the maximum premium credit, and Class 10 communities having no credit adjustments.

## 2.4 Implementation of the Mitigation Plan through Existing Programs

The Town of Clay intends to incorporate mitigation planning as an integral component of daily government operations. The Planning Group members will work with other local government officials to integrate the newly adopted hazard mitigation goals and actions into the general operations of their respective government and partner organizations. After conducting a capability assessment (identified as a mitigation action in Section 5 of this report) the Planning Group will identify additional policies, programs, practices, and procedures that could be modified to accommodate hazard mitigation actions. Specifically, the Town of Clay intends to implement the mitigation plan through FEMA and other programs in which they are involved. Table 2-4-1 below includes existing processes and programs in which the mitigation plan could be implemented.

Table 2-4-1. Existing Processes and Programs in the Town of Clay Mitigation Plan Implementation

Process	Action	Implementation of Plan in The Town of Clay
Administrative	Coordinate and Evaluate departmental or organizational work plans, policies, and procedural changes for integration with mitigation plan goals and actions.	<ul style="list-style-type: none"> <li>▪ Town of Clay Highway Department</li> <li>▪ Town of Clay's Fire Departments</li> <li>▪ Town of Clay Planning &amp; Development</li> <li>▪ Town of Clay Police Department</li> </ul>
Administrative	Evaluate the plans of other agencies, departments, and partners	<ul style="list-style-type: none"> <li>▪ Include reference to this plan in risk reduction section of the Onondaga County Comprehensive Emergency Management Plan.</li> <li>▪ Onondaga County Comprehensive Plan – By identifying areas of consistency and opportunities of collaboration, as well as any potential conflicts between existing plans, the County Comprehensive Plan will address the findings of this plan and incorporate the mitigation activities when appropriate.</li> <li>▪ Consider the following agencies and partner organizations: <ul style="list-style-type: none"> <li>▪ Syracuse-Oswego American Red Cross (SOARC)</li> <li>▪ New York State Department of Agriculture and Markets</li> <li>▪ All County and State Human Service Agencies</li> </ul> </li> </ul>
Administrative	Planner	<ul style="list-style-type: none"> <li>▪ Internship in the Planning and Development Office to assist in hazard mitigation plan maintenance</li> </ul>
Budgetary	Integrate plan with capital and operational budgets	<ul style="list-style-type: none"> <li>▪ Review municipal budgets to include line item mitigation actions</li> </ul>
Regulatory	Evaluate and use Executive Orders, ordinances, other directives and other regulatory programs	<ul style="list-style-type: none"> <li>▪ Comprehensive Planning - Institutionalize hazard mitigation for new construction and land use.</li> <li>▪ Zoning and Ordinances</li> <li>▪ Building Codes</li> <li>▪ Capital Improvements Plan – Ensure that the person responsible for projects under this plan evaluates if new construction is in a high hazard area, flood plain, etc. so the construction is designed to mitigate risk. Revise requirements for this plan to include hazard mitigation in the planning for, and design of, new construction.</li> <li>▪ National Flood Insurance Program – Continue participation in this program.</li> <li>▪ Community Rating System – Evaluate participation in this program, and if participating, annually update the plan to receive credit for hazard mitigation plan under the CRS program.</li> <li>▪ Continue to implement County and town storm water management plans.</li> <li>▪ Prior to formal changes (amendments) to comprehensive improvement plans, zoning, ordinances, building codes, capital improvement plans, or other mechanisms that control development of these must be reviewed to ensure they are consistent with the hazard mitigation plan. (Review of projects in the capital improvement plan is part of the mitigation strategy, See Section 5 of this plan).</li> </ul>

Process	Action	Implementation of Plan in The Town of Clay
Funding	Secure traditional sources of financing.	<ul style="list-style-type: none"> <li>▪ Once plan is approved, coincide initiation process to enable legislation to use fees, taxes, bonds, loans and grants to finance projects.</li> <li>▪ Apply for grants from federal or state government, nonprofit organizations, foundations, and private sources including Pre-Disaster Mitigation Program (PDM-DMA 2000), Flood Mitigation Assistance Program (FMA), and the Hazard Mitigation Grant Program (HMGP).</li> <li>▪ Research grant opportunities through U.S. Department of Housing and Urban Development's Community Development Block Grant (CDBG)</li> <li>▪ Other potential federal funding sources include: <ul style="list-style-type: none"> <li>▪ Stafford Act, Section 406 – Public Assistance Program Mitigation Grants</li> <li>▪ Federal Highway Administration</li> <li>▪ Catalog of Federal Domestic Assistance</li> <li>▪ United States Fire Administration – Assistance to Firefighter Grants</li> <li>▪ United States Small Business Administration Pre- and Post-Disaster Mitigation Loans</li> <li>▪ United States Department of Economic Development Administration Grants</li> <li>▪ United States Army Corps of Engineers (USACE)</li> <li>▪ United States Department of Interior, Bureau of Land Management</li> <li>▪ Other sources as yet to be defined</li> </ul> </li> <li>▪ See Appendix D for additional funding sources</li> </ul>
Partnerships	Develop creative partnerships, funding and incentives.	<ul style="list-style-type: none"> <li>▪ Public-Private Partnerships</li> <li>▪ Community Volunteers – for example, Habitat for Humanity</li> <li>▪ State Cooperation</li> <li>▪ In-kind resources</li> </ul>
Partnership	Develop partnerships with existing committees and councils.	<p>Examples of potential partners include:</p> <ul style="list-style-type: none"> <li>▪ Onondaga County Emergency Planning Committee</li> <li>▪ Onondaga County Department of Emergency Management</li> <li>▪ County and State Health Departments</li> <li>▪ County and State Department of Transportation</li> </ul>
Partnership	Work with federal, state, and local agencies	<ul style="list-style-type: none"> <li>▪ USACE</li> <li>▪ American Red Cross</li> <li>▪ Department of Homeland Security (DHS)</li> <li>▪ FEMA (also a part of DHS)</li> <li>▪ NOAA</li> <li>▪ NWS</li> <li>▪ New York State Department of Transportation (NYSDOT)</li> <li>▪ NYSEMO</li> <li>▪ USDA</li> <li>▪ United States Department of Transportation (USDOT)</li> <li>▪ United States Fish and Wildlife Service (USFWS)</li> <li>▪ Onondaga County Emergency Management</li> <li>▪ New York State Department of Environmental Conservation (NYSDEC)</li> </ul>

## **2.5 Integration of Existing Data and Plans into Mitigation Plan**

The mitigation plan integrates local and federal data as discussed below.

### **Local Data**

The Planning Group reviewed and incorporated existing data and plans to support the mitigation plan. A number of electronic and hard copy documents were made available to support the planning process including:

- Emergency management plans provided by the Planning Group
- HAZNY analyses
- Local Firms
- Watershed studies
- Documentation of past mitigation actions and grant applications
- Historic maps and local inventory data
- Comprehensive plans for the community
- Onondaga County Comprehensive Emergency Management Plan
- Soil & Water Conservation District Emergency Action Plan for Farms
- Onondaga County Vision Plan

Cross referencing this plan by updating these documents and others like it will need to occur and has been included in Section 5 as mitigation activities.

### **Federal Data**

Federal data was collected and used throughout the mitigation process including:

- US Census data
- HAZUS-MH provided data
- FEMA “How To” Series (386-1 to 386-4, and 386-7)
- Data from NOAA
- USGS topographic data
- Public laws and other programs such as the NFIP were examined to complete this plan.

A complete list of the existing data and plans used to support this mitigation plan is included in the references section of the plan. By incorporating data from existing programs into this mitigation plan, the Town of Clay identified the relevance of mitigation planning in these existing programs. Implementation of this plan through these existing plans is identified as a specific mitigation action in several areas in Section 5 of this plan.

## 2.6 Continued Public Involvement

The Town of Clay is committed to the continued involvement of the public in the hazard mitigation process. Copies of the Town of Clay Hazard Mitigation Plan will be kept and made available for review at the Town of Clay Town Hall during business hours at the following offices:

- Town of Clay Planning and Development
- Town of Clay Clerk's Office

A notice regarding annual updates of the plan and the location of copies of the mitigation plan will be publicized annually after the Planning Group's annual evaluation and posted on the Town of Clay's web site.

The Town of Clay Assistant Commissioner of Planning will be responsible for receiving, tracking, and filing public comments regarding this plan. Contact information for the Town of Clay is: Town of Clay Clerk's Office, 4401 Route 31, Clay, NY 13041; Phone: 315-652-3800.

The public will have an opportunity to comment on the plan at the meeting following the organizational meeting of the planning committee which will be held as a part of the annual mitigation planning evaluation process and the 5-year mitigation plan update. The Planner for the Town of Clay Planning and Development is responsible for coordinating the plan evaluation portion of the meeting, soliciting feedback, collecting and reviewing the comments, and ensuring their incorporation in the 5-year plan update as appropriate; however, members of the Planning Group will assist the Planner for the Town of Clay Planning and Development. Additional meetings may also be held as deemed necessary by the Planning Group. The purpose of these meetings would be to provide the public an opportunity to express concerns, opinions, and ideas about the mitigation plan.

## SECTION 3 – PLAN ADOPTION

This section of the mitigation plan contains information regarding adoption of the mitigation plan by the Town of Clay.

Adoption by the local governing body demonstrates the Town of Clay’s commitment to fulfilling the mitigation goals and objectives outlined in the plan. Adoption legitimizes the plan and authorizes responsible agencies to execute their responsibilities. In order for the plan to be approved, the Town of Clay must have its governing body adopt the plan before its submission to SEMO and FEMA.

### Plan Adoption by Local Governing Bodies

The municipality will proceed with formal adoption proceedings when FEMA provides conditional approval of this draft plan. Following adoption or formal action on the plan, the Town of Clay shall submit a copy of the resolution or other legal instrument showing formal adoption (acceptance) of the plan to NYSEMO. This will then be submitted to FEMA with the resolution in Appendix A of this plan. FEMA will transmit acknowledgement of verification of formal plan adoption and the official approval of the plan to the mitigation the Assistant Commissioner of Planning.

The Town of Clay Hazard Mitigation Plan is hereby adopted on the date(s) identified below as the official natural hazards mitigation plan for the Town of Clay.

In addition to be required by DMA 2000, adoption of the plan is necessary because:

- It lends authority to the plan to serve as a guiding document for all local and state government officials;
- It gives legal status to the plan in the event it is challenged in court;
- It certifies the program and grant administrators that the plan’s recommendations have been properly considered and approved by the governing authority and jurisdictions’ citizens; and
- It helps to ensure the continuity of mitigation programs and policies over time because elected officials, staff, and other community decision-makers can refer to the official document when making decisions about the community’s future.

Source: FEMA. 2003. “How to Series”-*Bringing the Plan to Life* (FEMA 386-4). August.

### APPROVAL SIGNATURES:

\_\_\_\_\_  
**Mark Rupprecht, Supervisor**  
**Town of Clay**

\_\_\_\_\_  
**Date**