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# Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

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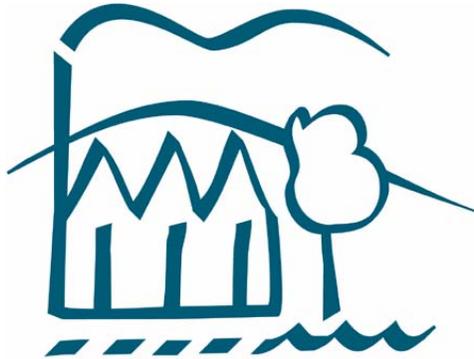
Draft  
February 2008

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*This document was prepared for the Genesee County  
Emergency Management Office in Genesee County, New York  
by the Genesee/Finger Lakes Regional Planning Council.*

**Draft  
February 2008**



**GENESEE/FINGER LAKES**  
Regional Planning Council

**50 West Main Street, Suite 8107  
Rochester, New York 14614**

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Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

## **Chapter 1: *Introduction***

### **PURPOSE**

The Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan was developed to help the County and all the municipalities located within it to:

- Break the cycle of destruction affecting life, safety and property by addressing mitigation needs prior to future hazard events;
- Pursue effective mitigation strategies that are realistic, achievable and will reduce the potential of future damage and economic loss;
- Plan ahead for recovery efforts that will follow future disaster events;
- Qualify for additional pre-disaster and post-disaster funding; and
- Meet New York State and Federal legislative requirements regarding pre-disaster mitigation.

### **SCOPE**

The scope of the Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan is countywide. The Plan addresses all natural, technological, and human-caused hazards recognized as a threat to the residents and property of the County and its twenty-one municipalities.

### **AUTHORITY**

Federal authorization to prepare a countywide all-hazard mitigation plan comes from the Disaster Mitigation Act of 2000 and 44 CFR (Code of Federal Regulations, Title 44). These regulations provide a mandate directing local governments to assess the potential dangers posed by natural hazards to their communities and propose cost effective means of reducing/eliminating the threats posed by those hazards.

Hazard mitigation planning programs are strongly encouraged and supported by the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974, known as the Stafford Act (PL 93-288, as amended) and New York State Executive Law Article 2B: State and Local Natural and Man-Made Disaster Preparedness.

### **FUNDING**

The Genesee County All-Hazard Mitigation Plan has been funded in part by a grant through the Hazard Mitigation Grant Program (HMGP) through the Federal Emergency Management Agency and the New York State Emergency Management Office. The Genesee County Emergency Management Office provided the required grant match. Representatives from Genesee County municipalities and county agencies contributed significant in-kind time and effort towards the collection and review of data that was critical in developing the plan.

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## **Chapter 2: *Legislation, Regulations and Programs***

### **SECTION 2.1: FEDERAL PRE-DISASTER MITIGATION PROGRAM**

The Pre-Disaster Mitigation (PDM) Program was authorized by §203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), 42 USC, as amended by §102 of the Disaster Mitigation Act of 2000. Funding for the program is provided through the National Pre-Disaster Mitigation Fund to assist States and local governments (including Indian Tribal governments) in implementing cost-effective hazard mitigation activities that complement a comprehensive mitigation program. All applicants must be participating in the National Flood Insurance Program (NFIP) if they have been identified through the NFIP as having a Special Flood Hazard Area (a Flood Hazard Boundary Map (FHBM) or Flood Insurance Rate Map (FIRM) has been issued). In addition, the municipality must not be suspended or on probation from the NFIP.

44 CFR Part 201, Hazard Mitigation Planning, establishes criteria for State and local hazard mitigation planning authorized by §322 of the Stafford Act, as amended by §104 of the DMA. After November 1, 2003, local governments and Indian Tribal governments applying for PDM funds through the States will need to have an approved local mitigation plan prior to the approval of local mitigation project grants. States will also be required to have an approved Standard State mitigation plan in order to receive PDM funds for State or local mitigation projects after November 1, 2004. Therefore, the development of State and local multi-hazard mitigation plans is critical in maintaining eligibility for future PDM funding.

### **SECTION 2.2: NEW YORK STATE HAZARD MITIGATION GRANT PROGRAM**

The Hazard Mitigation Grant Program (HMGP) is a Post Disaster Program designed with the intent to reduce future disaster damages, public expenditure, private losses and a community's vulnerability to natural hazards. The Hazard Mitigation Grant Program was established by the Robert T. Stafford Disaster Relief and Emergency Assistance Act (The Stafford Act), Public Law 93-288, as amended. Authorized under Section 404 of the Stafford Act, regulations implementing the program are found in the Code of Federal Regulations (CFR) at 44 CFR Part 206, Subpart N – ATTACHMENT A. In conjunction with other hazard mitigation plans and programs, the 404 HMGP provides an opportunity for a community to develop a comprehensive hazard mitigation program, which can be its best insurance against the impacts and costs of future disasters.

#### **Subsection 2.2.A: New York State Responsibilities**

State Government Program Administration: Under the 404 HMGP, the state, as grantee, is responsible for processing subgrants to eligible applicants. The Governor's Authorized Representative (GAR) serves as the grant administrator for all authorized HMGP funds. On behalf of the GAR, the Mitigation and Disaster Administration Branches in the New York State Emergency Management Office (SEMO) handles the day to day activities of the 404 HMGP. Among other things, the Hazard Mitigation Branch provides technical advice and assistance to eligible subgrantees, informs them of the availability of the program, and assists in the preparation and review of project applications. The financial management component of the program such as disbursements and financial reports to FEMA are administered by the Disaster Administration Branch.

It is the state's responsibility to identify and select hazard mitigation projects and forward them to the Federal Emergency Management Agency (FEMA) for review and approval. The state is responsible for

establishing procedures and priorities for selecting mitigation measures. In addition to the consideration of the minimum program criteria outlined above, project selection will consider the following:

- measures which best fit the overall plan for development and/or hazard mitigation in the community, disaster area, or state;
- measures that, if not taken will have a severe detrimental impact on the applicant, such as the potential for loss of life, loss of essential services, damage to critical facilities, or economic hardship on the community;
- measures that have the greatest potential impact on reducing future disaster losses;
- measures that are designed to accomplish multiple objectives such as damage reduction, environmental enhancement and economic recovery.

The Hazard Mitigation Policy Committee, of the State Disaster Preparedness Commission, and its subcommittees provide specialized assistance to the mitigation Branch, where necessary, for the purposes of administering the HMGP. An example of such assistance is in the formation of a Project Review Board to review and prioritize projects.

A Project Review Board will be convened in order to select and/or prioritize the projects, which will be forwarded to FEMA for funding approval. If available funding is sufficient to fund all of the projects for which funding is requested, all completed project applications received will be ranked and forwarded to FEMA for funding. If there are insufficient funds, SEMO will transmit to FEMA prioritized list of projects whose funding equals the amount available. This prioritized project listing will be developed with the assistance of the Project Review Board. All additional projects will be prioritized and submitted to FEMA as alternatives to the first group of prioritized projects.

If during the review and ranking process additional information is required for a project, such supplementary information will be requested by the Mitigation Branch of SEMO. Based upon the list of selected projects submitted by the Review Board, the GAR will notify all subgrantees of the decision regarding their application. SEMO will transmit to FEMA the application package containing all required documentation.

#### **Subsection 2.2.B: Local Government Responsibilities**

Local governments and other eligible local entities will assist the state in identifying appropriate mitigation measures. The Chief Elected Official (CEO) of each jurisdiction or non-profit organizations applying for 404 HMGP funding assistance is ultimately responsible for the satisfaction of all local requirements under Sections 404 and 409, P.L. 93-288.

SEMO strongly recommends that the CEO of each County that is applying for 404 HMGP funding, or that contains jurisdictions or non-profit organizations which are applying, appoint a Local Hazard Mitigation Officer (LHMO) who will serve as the point of contact with the State Hazard Mitigation Section. This appointee will also assist in the coordination of all local hazard mitigation activities taking place in all jurisdictions in the county. The Chief Executive, or his designee, from each eligible entity that applies for 404 HMGP funding must sign the Project Application Form, the State-local Disaster Assistance Agreement, and all required attachments to the application. Each applicant for 404 funding must designate a point of contact for each project.

#### **Subsection 2.2.C: Federal Government Responsibilities**

The Federal Emergency Management Agency (FEMA) reviews the prioritized list of state submitted applications and decides which to approve or reject based on program guidelines. FEMA has final approval authority for funding all projects. Upon approval of a project application, the FEMA Region II

Director will notify the Governor's Authorized Representative (GAR). FEMA will also notify the GAR when funding for approved projects is available for disbursement to subgrantees.

### **SECTION 2.3: COUNTY LEGISLATION AND REGULATIONS**

Genesee County is authorized to perform pre-disaster planning under the: Disaster Relief Act of 1974 (Public Law 93-288), Federal Civil Defense Act of 1950, and Presidential Executive Order 11490. The county is given legal authority through the Superfund Amendments & Reauthorization Act of 1986 (Public Law 99-499), Title III – Emergency Planning & Community Right to Know Act of 1986, NYS Defense Emergency Act (as amended) and County Executive Order #1 (as amended).

### **SECTION 2.4: REVIEW OF PLANS, REPORTS AND STUDIES**

The following plans, reports and studies have been reviewed and information in them integrated within the All-Hazard Mitigation Plan:

#### **County:**

- Genesee County Hazard Analysis Report. (updated February 2005)
- Genesee County Comprehensive Emergency Management Plan (CEMP) and Appendices: (updated January 2004):
  - Appendix 1: NIMS Incident Command System Position Descriptions.
  - Appendix 2: Standard Operating Guide for the Genesee County Emergency Operations Center (EOC).
  - Appendix 3: Instructions for Declaring a State of Emergency and Issuing Emergency Orders.
  - Appendix 4: Genesee County Emergency Alert System (EAS).
  - Appendix 5: New York State Highway Emergency Task Force Policy and Procedures.
  - Appendix 6: Domestic Preparedness Annex.
  - Appendix 7: Specific Terrorism Hazards and Personnel Protective Measures.
  - Appendix 8: Anthrax Guidelines for Emergency Responders.
  - Appendix 9: Radiation Exposure Annex.
- Genesee County Hazardous Materials Response Plan. (updated April 2005)
- Genesee County National Pharmaceutical Stockpile (NPS) Appendix.
- Genesee County Mutual Aid Plan.
- Genesee County Emergency Relocation Plan.
- Genesee County Airport Emergency Response Plan.
- Genesee County Smart Growth Plan: 2005 Review Report.
- Genesee County Comprehensive Plan Monitoring Reports (updated 2006):
  - Economic Development Monitoring Report.
  - Government Administration Monitoring Report.
  - Health and Human Services Monitoring Report.
  - Housing Monitoring Report.
  - Land Use Monitoring Report.
  - Law Enforcement and Emergency Management Monitoring Report.
  - Parks, Recreation, and Culture Monitoring Report.
  - Technology Monitoring Report.
  - Transportation Monitoring Report.
  - Utilities Monitoring Report.
- Operation Snow Go 1977: Post-Storm Report. (June 1977)

- Final Environmental Impact Statement: Regional Flood Control: Tonawanda Creek Watershed, Genesee County, New York. (November 1981)
- Interim Report on Feasibility of Flood Management: Tonawanda Creek Watershed. (July 1983)
- Special Flood Hazard Evaluation Report: Tonawanda Creek, Genesee County New York. Prepared for the Town of Batavia. (February 1983)
- Special Flood Hazard Evaluation Report: Tonawanda Creek, Genesee County New York. Prepared for the NYS Department of Environmental Conservation. (October 1984)
- Public Information Report: Batavia Reservoir Compound. (December 1982)
- Flood Insurance Study: City of Batavia, New York. (March 1982)
- Flood Insurance Study: Town of Batavia, New York. (July 1984)
- Flood Insurance Study: Village of Le Roy, New York. (February 1981)
- Flood Insurance Study: Village of Attica, New York. (July 1986)
- Genesee & Wyoming Counties Joint Flood Mitigation Plan. (August 2003)

**School District Plans:**

- Genesee Valley BOCES – Batavia Campus: Emergency Information.
- Emergency Plan – Byron-Bergen Central Schools.
- Emergency Plan – Elba Central Schools.
- Emergency Plan – Oakfield Central Schools.
- Emergency Plan – Pavilion Central Schools.
- Emergency Plan – Pembroke Central Schools.
- District-Wide School Safety Plan – Le Roy Central Schools.

**State:**

- New York State Comprehensive Emergency Management Plan. Volume I: Standard NYS Multi-Hazard Mitigation Plan. (Prepared September 2004, Approved January 2005)
- New York State Homeland Security System for Schools. (Revised April 2003)

**Other**

- Western New York Public Health Emergency Preparedness and Response Plan. (Draft April 2006)

The above plans, reports and studies were reviewed during the mitigation planning process by the Genesee/Finger Lakes Regional Planning Council staff. This review was carried out for five main reasons:

1. The review assisted G/FLRPC staff and the Planning Committee with the process of identifying Critical Facilities and Community Assets.
2. The review helped G/FLRPC staff better understand the roles and responsibilities of various County and Non/Municipal agencies in disaster planning, response, and recovery activities. This knowledge was critical during the Mitigation Strategy development phase as it allowed G/FLRPC staff to assist county and non/municipal officials with conceptualizing and developing specific mitigation measures.
3. The review assisted G/FLRPC staff and the Planning Committee with analyzing the potential impacts of hazard events. Overall, these plans and studies provided a valuable source of information about

hazard events in the county. While some of the documents did not contain much information about hazards, many others, including the Red Cross Emergency Operations Plan, the County HAZMAT plan, and the various flood hazard and mitigation reports, contained critical hazard information that was incorporated into the Risk Assessment, especially the hazard analysis in Chapter 5 and the hazard profiles in Chapter 6.

4. The review process ensured the recommendations within the Mitigation Strategy did not conflict with any existing plans and policies.
5. The review process helped identify any gaps that exist in county disaster planning efforts that could be plugged by specific mitigation measures within the Mitigation Strategy.

The results of this assessment are incorporated into both the Risk Assessment and the Mitigation Strategy sections of the plan. Specifically, several mitigation measures within the Mitigation Strategy are aimed at addressing county and non/municipal pre-disaster planning initiatives.

Lastly, a thorough review of municipal (city, town and village) land use laws was also completed for the all-hazard mitigation plan. The results of this review can be found in Appendix A, *Local Law Assessment*. The municipal land use law review was carried out for essentially the same reasons listed above, but especially to identify gaps in local land use laws that need to be plugged as part of the hazard mitigation planning process. Ideally, over the next five years municipal officials will work to revise and update their local laws based on the assessment included within this report.

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## Chapter 3: *The Planning Process*

### SECTION 3.1: PLANNING COMMITTEE

The Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan was prepared by the Genesee/Finger Lakes Regional Planning Council under the direction of the Genesee County All-Hazard Mitigation Planning Committee. The Planning Committee was comprised of representatives from each municipality in the County; relevant county, state and federal agencies; health care and emergency service providers; and an assortment of other interested stakeholders. All Planning Committee meetings were open to neighboring communities and the general public. The following table lists the stakeholders that participated in the development of the Genesee County All-Hazard Mitigation Plan.

**Table 3.1: Genesee County All-Hazard Mitigation Planning Committee**

| <b>ACTIVE (Attended meetings)</b> |                  |                                     |  |
|-----------------------------------|------------------|-------------------------------------|--|
| <i>First Name</i>                 | <i>Last Name</i> | <i>Title</i>                        | <i>Organization or Municipality</i>                                |
| Joseph                            | Cassidy          | Councilman                          | Town of Alabama  |
| Ruth                              | Hulshoff         | Supervisor                          | Town of Alexander  |
| Richard                           | Scharlau         | Mayor                               | Village of Alexander   |
| William                           | Wagner           | Trustee                             | Village of Alexander   |
| B. Leonard                        | Walker           | Public Works Director/City Engineer | City of Batavia  |
| Gregory                           | Post             | Supervisor                          | Town of Batavia  |
| Steven                            | Mountain         | Town Engineer                       | Town of Batavia  |
| Rodney                            | Cook             | Highway Superintendent              | Town of Batavia  |
| Bruce                             | Gerould          | Deputy Code Enforcement Officer     | Town of Batavia  |
| Gary                              | Fink             | Planning Board member               | Town of Bergen   |
| Thomas                            | Williamson       | ZEO/CEO/Fire Marshall               | Village of Bergen  |
| Stacy                             | Brown            | Clerk/Treasurer                     | Village of Bergen  |
| William                           | Gick             | Councilman                          | Town of Bethany  |
| Roy                               | Hersee           | Highway Superintendent              | Town of Bethany  |
| Thomas                            | Douglas          | ZEO/CEO                             | Town of Bethany  |
| Richard                           | Glazier          | Supervisor                          | Town of Byron  |
| Todd                              | Skeet            | Mayor                               | Village of Corfu   |
| Glenn                             | Russ             | Deputy Mayor                        | Village of Corfu   |
| Margaret                          | Patterson        | Trustee                             | Village of Corfu   |
| Ralph                             | Peterson         | Trustee                             | Village of Corfu   |
| Thomas                            | Sobczak          | Trustee                             | Village of Corfu   |
| Teresa                            | Burkhardt        | Town Clerk                          | Town of Darien   |
| Lucine                            | Kauffman         | Supervisor                          | Town of Elba   |
| Allan                             | Totten           | Highway Superintendent              | Town of Elba   |
| Ralph                             | Gillard          | Joint Town & Village Assessor       | Town of Elba & Village of Elba                                     |
| Gene                              | Sinclair         | ZEO/CEO                             | Town of Le Roy & Village of Le Roy                                 |
| Christopher                       | Hayward          | Chief of Police                     | Village of Le Roy  |
| Timothy                           | Hayes            | Sergeant                            | Village of Le Roy  |
| Alan                              | Dennis           | Highway Superintendent              | Town of Oakfield & Village of Oakfield                             |
| John                              | Strathern        | Highway Superintendent              | Town of Pavilion   |
| Peter                             | Sformo           | Councilman                          | Town of Pembroke & GAM (Genesee Co. Association of Municipalities) |
| David                             | Vicary           | Councilman                          | Town of Stafford   |
| Christopher                       | Szwagiel         | Director                            | Genesee Co. Dept. of Health  |
| Randy                             | Garney           | Environmental Health Supervisor     | Genesee Co. Dept. of Health  |
| Jeff                              | Elsenheimer      | PHEPC                               | Genesee Co. Dept. of Health  |

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|  |              |                                   |  |
|--|--------------|-----------------------------------|--|
| Sharon   | Brown        |                                   | Genesee Co. Dept. of Health                    |
| Ellery   | Reaves       | Director                          | Genesee Co. Mental Health Services             |
| Pamela   | Whitmore     | Director                          | Genesee Co. Office for the Aging               |
| Ruth   | Spink        | Services Administrator            | Genesee Co. Office for the Aging               |
| Esther   | Leadley      | Legislator                        | Genesee Co. Legislature                        |
| Mary Pat   | Hancock      | Chair                             | Genesee Co. Legislature                        |
| Don  | Read         | County Clerk                      | Office of the County Clerk                     |
| William  | Sheron       | Undersheriff                      | Genesee Co. Sheriff's Office                   |
| Russ   | Lang         |                                   | Genesee Co. Sheriff's Office                   |
| Gordon   | Dibble       | Chief Deputy – Road Patrol        | Genesee Co. Sheriff's Office                   |
| Timothy  | Yaeger       | Coordinator                       | Genesee Co. Emergency Management Services      |
| Keith  | Hunt         | Deputy Coordinator                | Genesee Co. Emergency Management Services      |
| Jerry  | Diskin       | Training Technician               | Genesee Co. Emergency Management Services      |
| Timothy  | Hens         | Highway Superintendent            | Genesee Co. Highway Department                 |
| James  | Duval        | Director                          | Genesee Co. Dept. of Planning                  |
| Felipe   | Oltremari    | Senior Planner                    | Genesee Co. Dept. of Planning                  |
| Jill   | Babinski     | Senior Planner                    | Genesee Co. Dept. of Planning                  |
| Susan  | Conklin      | Historian                         | Genesee Co. Dept. of History                   |
| Richard  | Tiede        | Senior Public Safety Officer      | Genesee Community College (GCC)                |
| Gina   | Regensburger | Human Resources Director          | Genesee Community College (GCC)                |
| Foster   | Miller       | Principal, Career & Technical Ed. | Genesee Valley BOCES                           |
| Kathy  | Hausfelder   |                                   | United Memorial Medical Center (UMMC)          |
| Elizabeth  | Chua         |                                   | United Memorial Medical Center (UMMC)          |
| Judith   | Nagel        | Director                          | Genesee Co. American Red Cross (ARC)           |
| David  | Hayward      |                                   | Genesee Co. American Red Cross (ARC)           |
| Tracy  | Stokes       |                                   | Genesee Co. American Red Cross (ARC)           |
| Linda  | Knox         | Regional Manager                  | Batavia Bus Service                            |
| George   | Squires      | District Manager                  | Genesee Co. Soil & Water Conservation District |
| David  | Lange        | Resident Engineer                 | New York State Dept. of Transportation         |
| Paul   | Wilson       |                                   | New York State Emergency Management Office     |
| Frances  | Reese        | Senior Environmental Scientist    | Lu Engineers                                   |
| Joseph   | Bovenzi      | Senior Planner                    | Genesee/Finger Lakes Regional Planning Council |
| David  | Zorn         | Executive Director                | Genesee/Finger Lakes Regional Planning Council |
| <b>INTERESTED (Received minutes, but chose not to attend meetings)</b>   |              |                                   |  |
| Douglas  | Post         | Clerk/Admin./Treasurer            | Village of Attica*                             |
| Radworth   | Anderson     | Planning Section                  | New York State Emergency Management Office     |
| Richard  | Minogue      | Planning Section                  | New York State Emergency Management Office     |
| Bill   | Clark        |                                   | New York State Emergency Management Office     |
| Anthony  | Martino      | Director                          | Wyoming County Emergency Management Office     |
| John   | Glass        | Emergency Services Coordinator    | Erie County Emergency Management Office        |
| John   | Cecula       | Hazard Mitigation Coordinator     | Niagara County Emergency Management Office     |
| Kevin  | Niedermaier  | Director                          | Livingston County Emergency Management Office  |
| Mary Louise  | Meisenzahl   | Administrator                     | Monroe County Emergency Management Office      |
| Paul   | Wagner       | Director                          | Orleans County Emergency Management Office     |
| * The Village of Attica straddles the border of Genesee and Wyoming Counties. Most of the Village is within Wyoming County. The Village actively participated in the Wyoming County All-Hazard Mitigation Plan, and while local officials were kept apprised of progress on the Genesee County Plan, they decided not to regularly attend Planning Committee Meetings. |              |                                   |  |

All the individuals listed above participated in developing the plan by attending planning committee meetings; attending regional and county agency meetings; sitting for interviews if unable to attend regular meetings; providing data and information related to their own areas of expertise, concern and interest; and

offering their ideas for specific mitigation projects that were integrated into the Mitigation Strategy (Chapter 8).

The Genesee County Office of Emergency Management provided overall project oversight, including setting the project schedule and identifying individuals and organizations for participation.

G/FLRPC staff provided technical assistance to the committee members, prepared the maps and carried out the risk assessment analysis (comparison of critical facilities and community assets to hazard areas), and assisted the County EMO with running the project by organizing meetings, setting meeting agendas, dates, times, and locations, as well as preparing minutes for each planning committee meeting and maintaining the project file. When necessary, G/FLRPC staff conducted fieldwork to help determine the feasibility of suggested mitigation projects.

G/FLRPC staff also compiled information on past hazard events. Sources for that information consisted of the New York State Standard Multi-Hazard Mitigation Plan, a variety of state and federal databases and information provided by various Committee members, but were also drawn from records in the Genesee County Historian’s Office.

The involved agencies ensured that wide-ranging interest groups in the County had a voice in the preparation of this Plan. Through the Genesee County Soil and Water Conservation District, the ideas and concerns of local agricultural interests were integrated into the Plan. Representatives from Genesee Community College (GCC) and the Genesee Valley Board of Cooperative Educational Services (BOCES) participated in developing this Plan in order to provide the input and concerns of local educational institutions. Through the County and municipal officials who participated in the planning process, local business interests and the concerns of development agencies such as the Genesee County Economic Development Center (GCEDC) were included. Lastly, organizations such as the local Red Cross chapter and the United Memorial Medical Center (UMMC) participated in order to lend their expertise and concerns regarding local health care institutions and first responders to the Plan.

**SECTION 3.2: A MULTI-JURISDICTIONAL EFFORT**

This plan is a multi-jurisdictional effort, inclusive of all twenty-one municipalities within Genesee County. Municipal representatives were asked to attend both the regular planning committee meetings and regional meetings. County agencies were asked to participate in the planning committee as well as in separate interviews and meetings to discuss their agency’s expertise. The following table and list indicate the municipalities and County agencies that participated in the planning process.

**Subsection 3.2.A: Genesee County Municipalities**

|  |                   |                     |
|--|-------------------|---------------------|
| Town of Alabama  | Village of Bergen | Town of Le Roy      |
| Town of Alexander  | Town of Bethany   | Village of Le Roy   |
| Village of Alexander   | Town of Byron     | Town of Oakfield    |
| Village of Attica  | Village of Corfu  | Village of Oakfield |
| City of Batavia  | Town of Darien    | Town of Pavilion    |
| Town of Batavia  | Town of Elba      | Town of Pembroke    |
| Town of Bergen   | Village of Elba   | Town of Stafford    |
| Genesee County Association of Municipalities (GAM)*              |                   |                     |
| * GAM is the County’s official council of municipal governments. |                   |                     |

**Subsection 3.2.B: Genesee County Agencies/Non-Municipal Participants**

- County Legislature
- County Clerk
- County Emergency Management Office
- County Highway Department
- County Planning Department
- County Sheriff’s Department
- County Department of Public Health
- County Mental Health Services
- County Office for the Aging
- County History Department
- Genesee County Soil & Water Conservation District
- Batavia Bus Service
- American Red Cross – Genesee County Chapter
- United Memorial Medical Center (UMMC)
- Genesee Community College (GCC)
- Genesee Valley Board of Cooperative Educational Services (BOCES)
- New York State Department of Transportation (NYSDOT)
- New York State Emergency Management Office (NYSEMO)

**SECTION 3.3: PLANNING CHRONOLOGY**

Prior to officially commencing the all-hazard mitigation planning process, Genesee County organized a committee that developed a Hazard Analysis (HAZNY) Report. The following documentation offers a brief synopsis of this event, as well as a chronology and synopsis for each meeting held by the Genesee County All-Hazard Mitigation Planning Committee, the Municipal Committees, and with each County agency. Copies of meeting minutes, public participation records and other documentation related to the planning committee, municipal committees, and County agency interviews are on file in the Genesee/Finger Lakes Regional Planning Council office.

**Subsection 3.3.A: HAZNY Committee**

The Genesee County Hazard Analysis Report was prepared in June 2003 by the County’s Emergency Management Office. The report, developed with the New York State Emergency Management Office’s automated program Hazards New York (HAZNY), was updated in March 2004 and then again in February 2005. The Genesee County All-Hazard Mitigation Plan uses the February 2005 version of the Hazard Analysis Report, which is included in its entirety in Chapter 5. The following table lists the individuals who were involved in the February update.

**Table 3.2: HAZNY Update Meeting Attendees – February 18<sup>th</sup>, 2005**

| Name:            | Municipality/Agency:               |
|------------------|------------------------------------|
| Joe Chimino      | Village of Bergen                  |
| Tom Williamson   | Village of Bergen                  |
| Frank Riccobono  | Genesee County Fire Advisory Board |
| Felipe Oltremari | Genesee County Planning Department |
| Jim Duval        | Genesee County Planning Department |
| Chris Hayward    | Le Roy Police Department.          |
| Mike Miggins     | Le Roy Police Department           |
| Darryl Sehm      | Batavia Police Department          |

|                |                                     |
|----------------|-------------------------------------|
| E. Jankowski   | Batavia Police Department           |
| Shelley Stein  | Town of Le Roy                      |
| Bill Sheron    | Genesee County Sheriff's Department |
| William Hirsch | Town of Alexander                   |
| William Gick   | Town of Bethany                     |
| Tim Yaeger     | Genesee County Emergency Services   |
| Keith Hunt     | Genesee County Emergency Services   |

### **Subsection 3.3.B: Planning Committee Meetings**

**April 12, 2006** – *Preliminary Organizational Meeting* – Prior to the first official Planning Committee meeting, G/FLRPC staffers meet with the county EMO Coordinator, the county Planning Department director, a county planner, and a representative from GAM (Genesee County Association of Municipalities). At this meeting G/FLRPC staff explained the basic outlines of the all-hazard mitigation planning process for the County officials. A project schedule was developed and the outreach process to County Agencies and Municipalities was begun.

**May 24, 2006** – The first Planning Committee meeting served as the “kick-off” meeting for the all-hazard mitigation planning process in Genesee County. G/FLRPC staffers prepared and delivered a Power Point Presentation that outlined the planning process and explained the different stages of this process to the attendees. G/FLRPC staffers also distributed a series of handouts that augmented the presentation by providing additional information to the attendees.

Meeting minutes may be viewed at:

<http://www.gflrpc.org/Publications/GeneseeAllHazard/052406agenda.htm>

**June 28, 2006** – At the second Planning Committee meeting the attendees worked on identifying Critical Facilities and Community Assets. Prior to the meeting, G/FLRPC staff developed a preliminary list of Critical Facilities and Community Assets and mapped these locations. The attendees were shown these maps and lists, asked to comment on them and correct them, and add their own Critical Facilities and Community Assets by marking these sites on the map and adding them to the list.

Meeting minutes may be viewed at:

<http://www.gflrpc.org/Publications/GeneseeAllHazard/062806agenda.htm>

**August 23, 2006** – Following the Regional (Municipal) and County Agency meetings in late July and early August, the Planning Committee met to review the updated list and maps of Critical Facilities and Community Assets. In addition, municipalities that could not attend the Regional meetings sent representatives to this meeting to ensure their interests were adequately addressed.

Meeting minutes may be viewed at:

<http://www.gflrpc.org/Publications/GeneseeAllHazard/082306agenda.htm>

**September 27, 2006** – The fourth Planning Committee meeting focused on completing and finalizing the master list of Critical Facilities and Community Assets. For the most part, committee members simply reviewed and confirmed their selections. A few minor changes were made, but overall the committee members were satisfied with the selected facilities and assets.

Meeting minutes may be viewed at:

<http://www.gflrpc.org/Publications/GeneseeAllHazard/092706agenda.htm>

**November 29, 2006** – At the fifth Planning Committee meeting the Risk Assessment draft (Chapters 1-7) was presented to the committee members for review and revision. The first part of the meeting consisted of a discussion of the contents and organization of these chapters. The second part of the meeting consisted of a PowerPoint presentation for the attendees that explained the procedures of developing the Mitigation Strategy. The attendees were asked to review the Risk Assessment and use it to begin considering what projects they would like to see implemented as a result of the mitigation planning program. No Planning Committee meeting was scheduled for late December due to the Holiday Season; the next series of meetings would be the Regional and County Agency meetings in early January.

Meeting minutes may be viewed at:

<http://www.gflrpc.org/Publications/GeneseeAllHazard/112906agenda.htm>

**January 31, 2007** – At the sixth Planning Committee meeting the committee members met to carry out the mitigation measure prioritization activity. All the mitigation measures developed during the January County Agency and Regional meetings (see below) were listed on large posters that were arranged around the meeting room. Committee members discussed among themselves which mitigation projects would be most useful for the County before voting. Each attendee was given an equal number of votes to use in prioritizing the proposed mitigation projects, which was done by following the STAPLEE criteria as explained in Chapter 8.

Meeting Minutes can be viewed at:

<http://www.gflrpc.org/Publications/GeneseeAllHazard/013107minutes.htm>

**February 28, 2007** – At the last Planning Committee meeting attendees received draft copies of the Mitigation Strategy for review and revision. G/FLRPC staff reviewed the organization and contents of these drafts for the attendees and answered questions about the Mitigation Strategy. The committee members were asked to review the drafts and send all comments/corrections to G/FLRPC by March 16<sup>th</sup>. After this date, G/FLRPC would finalize the draft and submit it to NYSEMO for review.

Meeting Minutes can be viewed at:

<http://www.gflrpc.org/Publications/GeneseeAllHazard/022807minutes.htm>

### **Subsection 3.3.C: County Agency/Non-Municipal Meetings**

At several times during the planning process G/FLRPC staff met with officials from various Genesee County departments and agencies, as well as non-municipal stakeholders, to discuss different aspects of hazard mitigation planning.

**July 13, 2006** – A G/FLRPC staffer met with several Genesee County Emergency Management officials to discuss the key hazard issues in the county, ongoing pre-disaster planning initiatives, and to review a list of documents that were assessed as part of the mitigation planning process and incorporated into the All-Hazard Mitigation Plan (see Chapter 2, pages 4-5).

**August 2, 2006** – A G/FLRPC staffer met with the representatives of key county departments and agencies, as well as other non-municipal stakeholders, to solicit their input on the selection of Critical Facilities and Community Assets. Attendees were provided with maps depicting the locations of all facilities and assets in the county, and asked to revise and edit these maps as they saw fit. In addition, the attendees were asked to discuss their main hazard concerns with respect to their individual organizations. Information collected at this meeting was incorporated into the Risk Assessment section of the plan.

**December 11, 2006** – As a prelude to beginning work on the Mitigation Strategy, G/FLRPC and Lu Engineers staff met with several Genesee County Emergency Management and Planning Department staff to discuss their ideas for mitigation projects. Discussions at this meeting resulted in a project list that served as a guide for the Planning Committee members to use in January as they developed their own ideas for mitigation projects.

**January 11, 2007** – A G/FLRPC staffer meet with the representatives of key county departments and agencies, as well as other non-municipal stakeholders, to discuss their ideas for mitigation projects. Based on the handouts distributed at the Planning Committee meeting the previous November, County officials were asked to comment on what their general mitigation concerns were and to propose potential projects that would address those concerns.

**March 15, 2007** – G/FLRPC and Lu Engineers staff meet with County Highway Department officials to discuss mitigation issues as they related to the County Highway Department facilities and operations. The County Highway Superintendent identified flood and drainage problem sites on County roads and provided information on how to remediate those sites.

#### **Subsection 3.3.D. Regional (Municipal) Meetings**

In order to facilitate the orderly collection of information from municipal officials, the county was organized into three planning regions. Municipal officials in each region were asked to attend special meetings where they were given the opportunity to work one-on-one with G/FLRPC, Lu Engineers, and Genesee County Planning Department staff and ensure that their ideas, suggestions, and concerns were accurately represented in the plan.

**July 25, 2006** – Region 3 Meeting. A G/FLRPC staffer met with representatives of the municipalities in Region 3 to discuss several issues, including the identification of Critical Facilities and Community Assets, municipal hazard concerns that differed from the county-wide hazard ranking, the history of hazard events in specific municipalities, and future development trends. Information collected at this meeting was incorporated into the Risk Assessment section of the plan.

**July 26, 2006** – Region 1 Meeting. A G/FLRPC staffer met with representatives of the municipalities in Region 1 to discuss several issues, including the identification of Critical Facilities and Community Assets, municipal hazard concerns that differed from the county-wide hazard ranking, the history of hazard events in specific municipalities, and future development trends. Information collected at this meeting was incorporated into the Risk Assessment section of the plan.

**August 1, 2006** – Region 2 Meeting. A G/FLRPC staffer met with representatives of the municipalities in Region 2 to discuss several issues, including the identification of Critical Facilities and Community Assets, municipal hazard concerns that differed from the county-wide hazard ranking, the history of hazard events in specific municipalities, and future development trends. Information collected at this meeting was incorporated into the Risk Assessment section of the plan.

**January 8, 2007** – Region 1 Meeting. G/FLRPC and Lu Engineers staff met with representatives of the municipalities in Region 1 to discuss potential hazard mitigation projects. Municipal officials were asked to comment on their principle hazard concerns and propose projects that would reduce/eliminate their community's vulnerability to those hazards. During a discussion period, G/FLRPC and Lu Engineers staff assisted municipal officials with conceptualizing and developing specific mitigation projects for inclusion in the Mitigation Strategy.

**January 9, 2007** – Region 2 Meeting. G/FLRPC and Lu Engineers staff met with representatives of the municipalities in Region 1 to discuss potential hazard mitigation projects. Municipal officials were asked to comment on their principle hazard concerns and propose projects that would reduce/eliminate their community’s vulnerability to those hazards. During a discussion period, G/FLRPC and Lu Engineers staff assisted municipal officials with conceptualizing and developing specific mitigation projects for inclusion in the Mitigation Strategy.

**January 10, 2007** – Region 3 Meeting. G/FLRPC and Lu Engineers staff met with representatives of the municipalities in Region 1 to discuss potential hazard mitigation projects. Municipal officials were asked to comment on their principle hazard concerns and propose projects that would reduce/eliminate their community’s vulnerability to those hazards. During a discussion period, G/FLRPC and Lu Engineers staff assisted municipal officials with conceptualizing and developing specific mitigation projects for inclusion in the Mitigation Strategy.

**March 15, 2007** – G/FLRPC and Lu Engineers staff met with officials from the Towns and Villages of Elba and Oakfield to discuss flood and drainage issues in these municipalities. Previous studies had assessed these issues in other parts of the County, but these areas were located beyond the bounds of those studies. Municipal officials including Town Supervisors, Highway Superintendents, and Assessors provided information about the location and nature of flood and drainage problems in these municipalities.

### **SECTION 3.4: PUBLIC PARTICIPATION**

An important component of the all-hazard mitigation planning program is the public participation and outreach aspect of the mitigation planning process. All planning committee meeting agendas, minutes and materials have been made available to the general public on the project website at:

**<http://www.gflrpc.org/GeneseeAllHazard.htm>**

The public was informed about this website through press releases. However, the principle form of public outreach took the form of two public meetings, one held when the Risk Assessment was completed and the second held when the Mitigation Strategy, and thus a full draft of the plan, was completed. The public was invited to attend the following events:

**September 26, 2006** – The Genesee County Emergency Services Office and the Genesee/Finger Lakes Regional Planning Council co-hosted a public meeting to inform the County’s citizens about the all-hazard mitigation project. This meeting was held at the County Emergency Services facility in the evening to allow interested citizens to attend following the workday. The meeting was advertised through press releases published in local newspapers and posted online.

A PowerPoint presentation was prepared and shown to the attendees. This presentation was designed to give the attendees a basic overview of the all-hazard mitigation planning process as well as information on what the county’s specific hazard issues are. After the presentation, attendees were invited to ask questions and offer their observations and insights regarding the county’s disaster preparedness activities. G/FLRPC staff and Genesee County officials were on hand to give the presentation and answer questions from the audience. At the meeting the attendees were invited to submit comments to the Planning Committee, but while several comments were received at the meeting and a question/answer session followed the presentation, no comments were received afterwards.

**March 28, 2007** – The Genesee County Emergency Services Office, the Genesee/Finger Lakes Regional Planning Council, and Lu Engineers hosted a public meeting to inform the County’s citizens about the all-hazard mitigation project. This meeting was held at the County Emergency Services facility in the evening to allow interested citizens to attend following the workday. The meeting was advertised through press releases published in local newspapers and posted online, as well as by a flyer circulated around County buildings for posting in public places.

This meeting focused on the Mitigation Strategy component of the Plan. A PowerPoint presentation was prepared for the attendees. The presentation included information on the process of developing the Mitigation Strategy, the proposed mitigation projects, and the plan adoption, implementation and maintenances processes. Attendees were invited to ask questions and offer their observations and insights regarding the County’s mitigation program.

The attendees included several municipal officials who came to discuss their concerns with flooding and drainage issues and provide additional information for inclusion within the Plan. The officials present expressed support for the mitigation planning process and affirmed their commitment to implement mitigation projects when grant funds become available.

Public outreach initiatives will continue pending the completion of the Genesee County All Hazard Mitigation Plan. As part of the regular annual plan review, the Planning Committee will hold a public hearing to inform and update the public on what progress has been made in implementing the Mitigation Strategy and any proposed revisions to the plan document. Comments submitted to the Planning Committee by members of the public will be considered and incorporated into revised versions of the all-hazard mitigation plan. Please refer to Chapter 9, *Plan Adoption, Maintenance, and Update Procedures*, for additional information on ongoing public participation activities.

The plan is currently available online at the project website. In addition, copies of the draft plan were distributed to local municipal buildings when the draft was completed. A press release was distributed to notify the public of this and invite comments, which could be submitted to G/FLRPC by regular mail, facsimile, or electronic mail.

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## **Chapter 4: *Community Profile***

### **GENESEE COUNTY, NEW YORK**

#### **SECTION 4.1: INTRODUCTION**

Genesee County is a predominately rural and agricultural county centrally located in Western New York State. It is known as the “Mother of Counties” because all the western New York counties between the Genesee River and Lake Erie were carved out of it between 1806 and 1841. Its current population is about 60,000 people and the County Seat is located in the City of Batavia.

Genesee County was formed on March 30, 1802. The County originally encompassed a vast area of Western New York, including (in addition to the current Genesee County) what are now Erie, Niagara, Orleans, Wyoming, Allegany, Cattaraugus, and Chautauqua counties, as well as parts of Monroe and Livingston Counties. The County’s name is derived from a Seneca Indian term meaning “Beautiful Valley,” a reference to the Genesee River valley. Ironically, the County no longer includes land that is actually within the Genesee Valley.

Historically, the County was strongly influenced by its rich agricultural land, its proximity to the Erie Canal, its rivers and streams which offered early settlers water power for mills, and its location astride key transportation routes. The area was inhabited by the Seneca tribe of the Iroquois Confederacy for several centuries prior to the arrival of white settlers. Perhaps the greatest Seneca influence still remaining on the county’s landscape are Routes 5, 33, 63, and 98, all of which were once trails through the wilderness that were adopted and developed by settlers. The earliest settlers in the future County arrived in Le Roy in 1797.

In 1792 the Holland Land Company, a consortium of Dutch financiers interested in developing frontier lands in North America, obtained title to an immense 3.3 million acre tract in Western New York. In 1797, once it had secured title to the land, the Company hired an experienced surveyor, Joseph Ellicott (1760-1826), to serve as its chief surveyor and land sales agent. Under his able oversight, a team of surveyors delineated a grid pattern of townships that remains visible on the County’s landscape today. Land sales began in November 1800. Many municipal boundaries and County roads follow the surveyor’s grid laid out more than two centuries ago.

Given the area’s remote and primitive condition, the Holland Land Company was forced to invest considerable resources in surveying, road building, advertising, and other measures to attract settlers to the area. Ellicott and his surveyors kept detailed notes on the area’s topography, geology, plant and animal life, and soil conditions that were invaluable to later settlers. Ellicott took decisive steps to shape the pattern of settlement in the future county by surveying town lines, laying out key roadways, and attracting skilled workers such as millers, blacksmiths, innkeepers, and other artisans to establish the nucleus of future settlements. He oversaw the settlement and development of the company’s holdings from the Holland Land Company office in Batavia. When Ellicott retired from his post in 1821, he had effectively laid the foundations of Genesee County’s future growth and development.

During the mid and late nineteenth centuries, Genesee County functioned as both an agricultural and industrial community. After an initial boom in wheat, farmers turned to corn and dairying and eventually began farming the rich muckland soils in the north of the county. Batavia grew from its origins as a milling settlement into a major regional manufacturing center, although since the 1970s many industries have closed down or moved out of the City. The County long benefited from its position on the New York Central Railroad System’s mainline, which funneled considerable commercial traffic through the

County. Today it benefits from its position astride the New York State Thruway (I-90), the state's principle east/west transportation artery, which may be likened to the New York Central mainline of old.

Today, Genesee County seeks to provide its inhabitants with efficient and cost-effective government services, a hospitable business climate, and a high quality of life. The County is undertaking a hazard mitigation planning program as part of its commitment to constantly improve the quality of life of its citizens.

#### **SECTION 4.2: LOCATION AND LANDSCAPE FEATURES**

Genesee County is located midway between the cities of Rochester and Buffalo. The county is bordered on the north by Orleans County, on the east by Monroe and Livingston counties, on the south by Wyoming County, and on the west by Erie and Niagara Counties.

Genesee County is roughly rectangular in shape and covers 501 square miles. It is primarily rural, with the major exception of the City of Batavia and its surrounding suburbanized areas. The northeastern towns of Bergen and Le Roy are currently witnessing some residential growth as a result of the ongoing expansion of metropolitan Rochester. A similar situation is found on the county's western end, where the Town of Pembroke has recently undergone some residential growth as a result of the ongoing expansion of metropolitan Buffalo.

Topography ranges from flat, low-lying muckland in the north to hills and valleys in the south. The northern three-fourths of the county lies within the Erie-Ontario sub-zone of the Great Lakes Plain. This section is characterized by terrain that is relatively flat and level, and in some areas gently undulating. The land elevation of this section ranges from 500 to 1,000 feet above sea level. The southernmost section of the county, along the border with Wyoming County, lies within the Cattaraugus Highlands of the Appalachian Plateau. The topography of this area is dominated by a range of hills extending northward from Wyoming County. These hills vary in elevation from 1,000 to 1,420 feet.

Bedrock is mainly shale in the southern third of the County, predominately limestone in the central third, and alternating limestone and shale formations, mostly calcareous, in the northern third. Most soils are glacial till that forms undulating to rolling terrain. Some coarse-textured soils such as sands and gravel are found in the west-central areas. Alluvial soils are found in valley bottoms in the south-central area. Soil quality varies throughout the County, but is generally good enough to support agricultural activities.

Drainage conditions differ throughout the County. Generally, the county's streams flow in north-eastern and north-western directions. The county's main natural watercourses are the Tonawanda, Oatka, and Black creeks. The Tonawanda drains the western two-thirds of the county and flows west to Lake Erie. The eastern third of the county is drained by the Oatka and Black Creeks, which empty into the Genesee River. Many smaller creeks flow through the county as well. The Murder, Ellicott, Eleven Mile, Peck, Durkee, and Huron creeks are in the western half of the county. The Bigelo, Spring, and Mud Creeks are in the eastern half of the county.

The northernmost part of the county, in the towns of Alabama, Oakfield, Elba, and Byron, is muckland that was once part of the vast Tonawanda, Alabama, and Oak Orchard Swamp. This swamp once extended over about 25,000 acres of land along the Orleans-Genesee county line. Large areas of this swamp have been drained to produce the rich agricultural soils of the muckland. In addition, much of this low-lying area is dedicated to wildlife and game reserves, including the Iroquois National Wildlife Refuge and Tonawanda Game Management Area in Alabama, the Oak Orchard Creek State Game Preserve in Oakfield, and the Byron-Bergen Swamp in Byron and Bergen. Several small lakes and ponds,

some man-made and privately owned, are used for recreational purposes. These include Horseshoe Lake, NuLake, Indian–Falls Lake, Darien Lake and Godfrey’s Pond.

**SECTION 4.3: CLIMATE**

Genesee County’s climate is classified as humid-continental, with hot, humid summers and cold winters. According to the local Cornell Cooperative Extension, the County’s average growing season ranges from May 6 to October 8 for a total of 155 days. Mean January temperatures tend to fall in the mid 20sF, with nighttime lows of around 0F possible. Mean July temperatures tend to fall between the high 60sF and the low 70sF, with the occasional daytime high of about 90F. The highest temperature ever recorded in the County was 104 degrees Fahrenheit (July 9, 1936). The lowest temperature ever recorded in the County was -24 degrees Fahrenheit (February 9, 1934). Temperature differences are generally due to differences in elevation.

**Table 4.1: Average Monthly Temperature and Humidity in Genesee County**

| Month     | Temperature Range in °F | Humidity (am/pm) |
|-----------|-------------------------|------------------|
| January   | 31 to 17                | (79/71)          |
| February  | 33 to 17                | (80/69)          |
| March     | 42 to 25                | (80/63)          |
| April     | 56 to 36                | (78/56)          |
| May       | 68 to 46                | (77/53)          |
| June      | 78 to 56                | (79/53)          |
| July      | 82 to 60                | (82/52)          |
| August    | 80 to 59                | (87/55)          |
| September | 72 to 52                | (88/59)          |
| October   | 61 to 42                | (85/61)          |
| November  | 48 to 33                | (82/69)          |
| December  | 36 to 23                | (81/74)          |

Source: Genesee County ARC Disaster Response Plan

Winds and storms typically prevail from the west at speeds of 7 to 12 mph. There is no dry season and about 30 inches of precipitation is expected each year, with slightly higher amounts in the County’s southwestern townships. Average annual snowfall is about 83 inches. The most significant and potentially dangerous weather patterns affecting the area typically occur in the winter and early spring. Higher than average snowfall in a short period of time occasionally results in dangerous road conditions, sometimes forcing motorists off the roads and disrupting normal daily activities. Severe weather events occasionally force the closure of major roads, including the NYS Thruway. In addition, sudden spring thawing sometimes results in flooding conditions along major waterways such as the Tonawanda and Oatka Creeks.

**SECTION 4.4: TRANSPORTATION**

Genesee County is served by an efficient transportation network. The County’s major east/west roads include State Routes 5, 20, 33, and 262. The main north/south roads are State Routes 19, 77, 98, and 237. State Route 63 runs diagonally across the county from the northwest to the southeast. These main roadways are linked together by a fairly dense network of local roads. Many of the County’s main roads intersect in downtown Batavia, which reflects that city’s historic role as the transportation and economic hub of the County and region.

A unique and critical component of the County’s transportation network is the New York State Thruway (I-90). Built in the early 1950s, the Thruway bisects the county on an east/west axis, running through the

towns of Pembroke, Batavia, Stafford and Le Roy. The county is served by three exits, including Exit 47 in Le Roy, Exit 48 in Batavia, and Exit 48A in Pembroke. Route 490, which links the County to the Greater Rochester area, intersects the Thruway in Le Roy. The Thruway is the primary east/west transportation route in New York State. As such it is both a major prop for the local economy and a potential hazard issue. The possibility of a transportation accident involving a hazardous materials spill is an ever present concern among local officials.

Railroads first came to the County in 1836 when the Tonawanda Railroad, which linked Bergen to Rochester, began operating. Service was extended to Batavia the following year and to Attica by 1842. In the mid 1850s seven short railroads were consolidated into the New York Central; the mainline passed through the county on an east/west axis. By 1900, in addition to the New York Central, the Delaware, Lackawanna, and Western; the New York, Lake Erie and Western; and the Lehigh Valley, as well as the Buffalo Division of the Erie and the Lake Shore Division of the New York Central, operated trains through the County. These railroads spurred the growth of local industries, but they also led to numerous accidents, including a major chemical spill near the hamlet of South Byron in 1970.

The development of high speed roads and highways in the mid twentieth century led to a decline in the importance of railroads, and passenger service to the County was discontinued in 1971. Today, the nearest passenger station is in Depew, Erie County. Freight trains, operated by CSX and Norfolk Southern along with two short lines, continue to operate through the County.

Air transportation is provided by the Genesee County Airport, located in the Town of Batavia just north of the Thruway and the City. The two major regional airports, the Greater Rochester International Airport and the Buffalo Niagara International Airport, are located within an hour's drive of the county. Several airfields, servicing small private aircraft, are also located in the County.

## **SECTION 4.5: LAND USE AND DEVELOPMENT**

### **Subsection 4.5.A: Historic Profile**

Like many Western New York counties, agriculture has been the key economic activity in Genesee County since the beginning of settlement in the early 1800s. The first settlers in the area found thick, unbroken forests interspersed with swampy wetlands and lowlands. Early settlers cleared the land and produced potash and pearl-ash by burning felled trees. In 1813, 68 asheries produced 178 tons of potash. By this time, having cleared large areas, farmers began producing wheat. The Holland Land Company's road building policies assisted early farmers by providing them with the means to access eastern markets; by the 1820s farmers were also carrying their produce to the Erie Canal ports of Medina, Albion, and Brockport. In 1855 there were 41,000 acres of wheat producing farmland in the County.

By mid century the County's wheat crop was in decline due to stiff competition from Midwestern grain farmers. Many local farmers abandoned wheat production in favor of new crops and activities, including corn and dairying. In the early 1900s, once the low lying wetlands in the north of the County were drained to produce muckland, farmers in that area took advantage of the rich muckland soils to grow a wide variety of crops including lettuce, onions, carrots, potatoes, turnips, beets, celery, and spinach.

In the early twenty-first century agriculture remains the County's principle economic support. Genesee County ranks third in New York State in terms of agricultural sales per farm. According to the Cornell Cooperative Extension, in the early twenty-first century the agriculture industry brings in \$110 million in sales, employs 1,500 farm workers, and supports 1,275 food processing workers. 53% of the County's area is classified as farmland, which includes about 7,000 acres of highly productive muckland in the north. Crops such as onions and potatoes are produced on the muckland; the Town of Elba is known as

the “Onion Capital of the World.” Dairying is the largest sector of the agriculture industry, followed by vegetables, grain, hogs, and sheep. During the past few decades, small family run farms have been mostly replaced by large, highly mechanized operations.

In addition to agriculture, milling and manufacturing has played an important role in the local economy. The first millers established themselves at strategic locations along waterways; the settlements of Batavia and Le Roy were founded around mills. Flour mills and saw mills dominated the early milling economy; by 1855 the County had seven flour mills, four in Le Roy, two in Batavia, and one in Stafford. In the same year the County had 46 saw mills. Other early factories included sash and blind manufacturers, plaster mills, and tanneries.

Industrial activities grew in tandem with the development of railroads. By the late 1800s Batavia had grown into a major regional manufacturing center. Some of the city’s key industrial firms included the Johnson Harvester Company (later Massey-Harris), Wiard Plow Company, Baker Gun Company, E. N. Rowell Company (paper boxes), and F. E. Mason and Sons (embossed labels). In all there were twelve large industrial plants in operation by 1915. Throughout the early and mid twentieth century, Batavia’s industries provided a stable base for the City’s and County’s economy.

Unfortunately, by the 1970s, these industrial establishments were suffering from adverse economic conditions. In 1976 the Sylvania plant in Batavia shut down and the company transferred its activities to South Carolina. Several other large industrial firms closed down their local operations by the early 1980s. The local economy has struggled to cope with the loss of these businesses. Many old industrial sites remain underutilized in and around the City of Batavia.

In the early 2000s, the county’s largest employers are the county government (811 employees), the United Memorial Medical Center (UMMC) in Batavia (706 employees), and the Batavia school system (440 employees). Despite the decline of the traditional industrial sector, manufacturing remains an important aspect of the County’s economy. The largest manufacturers are Lapp Insulator Company (Le Roy, 350 employees); O-At-Ka Milk Products (Batavia, 320 employees); Graham Corporation pumps (Batavia, 280 employees); P. W. Minor and Son shoes (Batavia, 250 employees); and Chapin Manufacturing Incorporated (Batavia, 225 employees). In addition to these large institutions and companies, hundreds of smaller businesses operate in the County as well.

Tourism and outdoor recreation activities are a growing source of support for the County. Large areas of several towns are devoted to wildlife and game preserves. The Genesee County Forest in the Town of Bethany, established in 1915, is the oldest County Forest in New York State. The Bergen Swamp was designated a National Natural Monument in 1965. Darien Lake State Park, established in 1970 in the Town of Darien, is a major regional outdoor recreation center. Darien Lake Fun County, established in 1976 as a camping center, has grown into a major amusement park and entertainment complex. Today known as Six Flags Darien Lake, it is also one of the County’s key economic supports. Tourists are also attracted to the county for its many historical sites, including the famous Holland Land Office Museum in Batavia and the Jell-O Museum in Le Roy.

Today, Genesee County is among the most advanced counties in New York State in addressing land use and development issues. In 2001, the County adopted a Smart Growth Plan to help guide new development into areas that will prevent or reduce urban sprawl, protect valuable farmland, and assist with new economic development. This plan is updated every two years to reflect changing conditions on the ground and, because it is linked with public water provision, has helped reduce the impacts of potentially wasteful development trends.

**Subsection 4.5.B: County Development Trends**

An overall analysis of development trends in Genesee County was completed as part of the *Regional Development Analysis* (G/FLRPC, 2004). For this analysis, data from the *Regional Population Forecast: County, City, Town, and Village Projections for the Genesee/Finger Lakes Region* (G/FLRPC, 2003) were applied to the land available for development and zoning capacity figures to determine an estimated build out potential in residential, commercial, and industrial development categories.

Genesee County municipalities have approximately 169,000 acres of land available for development. The projected number of available residential lots is between 147,000 and 248,000. Of these lots available for residential development, approximately 120 lots (well under one percent) are projected to be developed by 2020. Approximately 160 (well under one percent) are projected to be developed by 2040.

The allowable square footage for commercial development is approximately 19.1 million. Of allowable square footage for commercial development, between 525,000 and 1.2 million (between 2.7 and 6.4 percent) is projected to be developed by 2020. Between 1.2 and 2.9 (6.4 and 15.0 percent) is projected to be developed by 2040.

The allowable square footage for industrial development is approximately 61.7 million. Of allowable square footage for industrial development, between 216,000 and 828,000 (between 0.4 and 1.3 percent) is projected to be developed by 2020. Between 504,000 and 1.9 million (0.8 and 3.1 percent) is projected to be developed by 2040.

The following table indicates, by municipality, where the major growth areas in the county are and what basic type of development (residential, industrial, and commercial) is currently occurring.

**Table 4.2: Building Permits Issued in Genesee County (2001 – 2005)**

| Municipality   | Residential Units |      |      |      |      | Industrial Units |      |      |      |      | Commercial Units |      |      |      |      |
|----------------|-------------------|------|------|------|------|------------------|------|------|------|------|------------------|------|------|------|------|
|                | 2001              | 2002 | 2003 | 2004 | 2005 | 2001             | 2002 | 2003 | 2004 | 2005 | 2001             | 2002 | 2003 | 2004 | 2005 |
| Alabama        | 4                 | 4    | DNA  | 7    | 4    | -                | -    | DNA  | -    | -    | -                | -    | DNA  | -    | -    |
| Alexander      | 5                 | 6    | DNA  | DNA  | 4    | -                | -    | DNA  | DNA  | -    | -                | -    | DNA  | DNA  | -    |
| Alexander (V)  | -                 | 2    | -    | -    | 1    | -                | -    | -    | -    | -    | -                | -    | -    | -    | -    |
| Batavia (City) | DNA               | DNA  | 3    | 11   | 2    | DNA              | DNA  | -    | -    | -    | DNA              | DNA  | 1    | 2    | 1    |
| Batavia (Town) | DNA               | DNA  | 38   | 9    | 12   | DNA              | DNA  | -    | 1    | 5    | DNA              | DNA  | 6    | 6    | -    |
| Bergen         | 9                 | 10   | 2    | 8    | 4    | 1                | -    | -    | -    | 1    | -                | -    | -    | -    | 1    |
| Bergen (V)     | -                 | 1    | -    | -    | -    | -                | -    | -    | -    | -    | -                | -    | -    | -    | -    |
| Bethany        | DNA               | 5    | 9    | DNA  | 1    | DNA              | -    | -    | DNA  | -    | DNA              | -    | -    | DNA  | -    |
| Byron          | -                 | 2    | 5    | 4    | 5    | -                | -    | -    | -    | -    | -                | -    | -    | 2    | 1    |
| Corfu (V)      | -                 | 1    | 2    | -    | 2    | -                | -    | -    | -    | -    | -                | -    | -    | -    | -    |
| Darien         | 11                | 13   | 13   | 11   | 13   | -                | -    | -    | -    | -    | -                | -    | -    | -    | -    |
| Elba           | DNA               | -    | 3    | 1    | 4    | DNA              | -    | -    | -    | -    | DNA              | -    | -    | -    | -    |
| Elba (V)       | DNA               | -    | 1    | 1    | 1    | DNA              | -    | -    | -    | -    | DNA              | -    | -    | -    | 1    |
| LeRoy          | 6                 | 11   | 13   | 18   | 12   | -                | 5    | -    | -    | -    | 3                | -    | 2    | 1    | 1    |
| LeRoy (V)      | 1                 | 4    | 2    | 4    | 2    | -                | 1    | -    | -    | -    | -                | 5    | 2    | 6    | -    |
| Oakfield       | 4                 | 4    | 3    | 3    | 5    | -                | -    | -    | -    | -    | -                | -    | -    | -    | -    |
| Oakfield (V)   | -                 | -    | -    | -    | -    | -                | -    | -    | -    | -    | -                | -    | -    | -    | -    |
| Pavilion       | 7                 | 7    | 9    | DNA  | 5    | -                | -    | -    | DNA  | -    | -                | -    | -    | DNA  | -    |
| Pembroke       | 4                 | 6    | 9    | 16   | 8    | -                | -    | -    | -    | -    | 1                | -    | -    | -    | 2    |
| Stafford       | DNA               | DNA  | 2    | 6    | 9    | DNA              | DNA  | -    | -    | -    | DNA              | DNA  | -    | 2    | 2    |
| County Totals  | 51                | 76   | 114  | 99   | 94   | 1                | 6    | 0    | 1    | 6    | 4                | 5    | 11   | 19   | 9    |

DNA = Data not available.

Source: Regional Land Use Monitoring Reports 2000-2005, G/FLRPC

As the above table indicates, the overwhelming number of building permits issued over the past five years has been for residential units. During this five year span 434 residential permits were issued, as compared to 48 commercial permits and only 14 industrial permits. These figures reflect the decline of industry as a local economic underpinning and the rise of the County's role as a bedroom community for metropolitan Rochester and metropolitan Buffalo.

#### **Subsection 4.5.C: Municipal Development Trends**

Expected future development areas were determined by consulting the Genesee County Smart Growth Plan and by discussing growth trends with municipal officials. The Smart Growth Plan includes maps of each town that depict areas where future development will be guided in accordance with the County's Smart Growth principles. Municipal officials were asked to map the areas of their communities where they thought future development was most likely to occur. Attention was paid to areas of new development; areas of anticipated redevelopment were not included in this analysis because those areas are already built up.

Please see Map 7: Possible Future Development Areas for additional information.

**a. Town of Alabama**

The Town expects modest residential growth in three nodal areas: around the intersection of Rts. 77, 63, and Lewiston Road at the hamlet of Alabama Center, around the intersection of Rt. 63 and Maple Street Road at the hamlet of South Alabama, and around the Rt. 63 and Bloomingdale Road intersection at the hamlet of Basom.

**b. Town of Alexander**

The Town expects most of its future development to occur within a corridor running along Rt. 98 between the Village of Alexander and the Village of Attica, as well as in the immediate vicinity of the two villages.

**c. Village of Alexander**

The Village does not expect any major new development within its boundaries. However, it does expect some new development immediately outside its borders, which would impact the Village's transportation network.

**d. Village of Attica**

The Village does not anticipate any major new development within its Genesee County section, but it does expect some new development just outside its borders within the Town of Alexander.

**e. City of Batavia**

The City does not expect any major new development within its borders. However, it does expect extensive redevelopment of previously built up land, and it also expects new development all around its borders, which will impact transportation conditions in the City.

**f. Town of Batavia**

The Town expects widespread new development in the area immediately north and east of the City of Batavia. To the west of the City, the Town expects new development extending in a corridor along Routes 5 and 33. To the southwest of the City, new growth is expected in a corridor along Route 98. To the southeast of the City, new growth is expected in a corridor along Route 63.

**g. Town of Bergen**

The Town expects new growth in the central and eastern parts of the town, around the Village of Bergen. New development is expected to occur along Routes 262, 33, and 19. A small area of new growth is expected in south-east corner of the town, near the I-90 and Rt. 490 interchange which is just over the border in Le Roy.

**h. Village of Bergen**

The Village does not expect much new development within its borders, but it will be affected by new growth just outside in the town.

**i. Town of Bethany**

The Town expects two pockets of new development. One pocket is in the center of the town around the intersection of Route 20 and Bethany Center Road, at the hamlet of Bethany Center; the other is in the northeast part of the town around the intersection of Route 63 with East Road, Paul Road, and East Bethany Road, at the hamlet of East Bethany.

**j. Town of Byron**

The Town expects new development in the vicinity of the hamlet of Byron, which is at the intersection of Routes 262 and 237, around the hamlet of South Byorn, which is at the intersection of Route 237 and Freeman Road, and lastly a small area of new growth is expected around the intersection of Route 237 and North Byron Road.

**k. Village of Corfu**

The Village does not anticipate new development within its boundaries, but it does expect new growth just outside its borders in the Towns of Pembroke and Darien.

**l. Town of Darien**

The Town expects most new development to be concentrated in the center of the Town along Routes 20 and 77. In addition, a pocket of growth is forecast for the west-central part of the town, around the intersection of Route 20 and Harlow Road near Darien Lake State Park.

**m. Town of Elba**

The Town expects very little new development; such growth that is anticipated is expected to congregate around the Village of Elba.

**n. Village of Elba**

The Village does not expect any new development within its boundaries, but it does expect new development around its borders in the Town of Elba.

**o. Town of Le Roy**

The Town expects extensive new development in its central section. New growth is anticipated all around the Village of Le Roy's border and extending eastward from the village along Route 5 almost to the county line. In addition, new growth is forecast for the area around the I-90 and Rt. 490 interchange in the north-central section of the Town.

**p. Village of Le Roy**

The Village does not expect new growth within its boundaries. It anticipates being affected by new development just beyond its borders in the Town of Le Roy.

**q. Town of Oakfield**

The Town expects new growth to be concentrated in the area immediately surrounding the Village of Oakfield boundary. Development is expected to the northeast of the Village along Route 63 and Lewiston Road, and immediately south of the village along South Pearl Road.

**r. Village of Oakfield**

The Village does not expect much new development within its border, but it expects to be affected by new growth just outside its borders in the Town of Oakfield.

**s. Town of Pavilion**

The Town expects a large area of new development in its south central section, focused around the hamlet of Pavilion and the intersection of Routes 63 and 19.

**t. Town of Pembroke**

The Town expects new development in the vicinity of the Village of Corfu. The town also expects new development in the vicinity of the hamlet of Indian Falls, and especially in the area surrounding Exit 48A, the intersection of Routes 5 and 77, and in a corridor extending from the intersection of Routes 5 and 77 westward to the town and county line. Another pocket of growth is expected in the eastern end of the town, in the area between Route 5 and I-90.

**u. Town of Stafford**

The Town expects new development along the Route 5 corridor from the Batavia town line to the vicinity of the hamlet of Stafford, at the intersection of Routes 5 and 237.

**Population Trends and Demographics**

Population growth in Genesee County has been gradual but steady over the past forty years. From a total of almost 54,000 people in 1960, the population has risen to slightly over 60,000 in 2000. This represents an increase of 12% in the number of people living in the county. However, a slight decline in the county’s population is forecast over the next forty years.

**Table 4.3: Historic Population Figures and Projections by Municipality, Genesee County, New York**

| Population            | Historic Population |        |        |        |        | Change 1960-2000 |      | Projected Population |        |        |        |
|-----------------------|---------------------|--------|--------|--------|--------|------------------|------|----------------------|--------|--------|--------|
|                       | 1960                | 1970   | 1980   | 1990   | 2000   | Number           | %    | 2010                 | 2020   | 2030   | 2040   |
| <b>Genesee County</b> | 53,944              | 58,722 | 59,400 | 60,060 | 60,370 | 6,426            | 12%  | 60,237               | 59,772 | 59,274 | 58,753 |
| Alabama               | 1,931               | 1,872  | 1,926  | 1,998  | 1,881  | -50              | -3%  | 1,854                | 1,834  | 1,814  | 1,795  |
| Alexander             | 1,652               | 1,875  | 1,868  | 1,778  | 1,852  | 200              | 12%  | 1,845                | 1,828  | 1,812  | 1,795  |
| Alexander (V)         | 335                 | 474    | 483    | 445    | 481    | 146              | 44%  | 484                  | 484    | 484    | 483    |
| Attica (V Part)       | 0                   | 2      | 16     | 10     | 118    | 118              | -    | 121                  | 123    | 123    | 125    |
| Batavia (City)        | 18,210              | 17,338 | 16,703 | 16,310 | 16,256 | -1,954           | -11% | 16,005               | 15,675 | 15,336 | 15,001 |
| Batavia (Town)        | 4,325               | 5,440  | 5,565  | 6,055  | 5,915  | 1,590            | 37%  | 5,954                | 5,970  | 5,954  | 5,921  |
| Bergen                | 1,032               | 1,263  | 1,592  | 1,691  | 1,942  | 910              | 88%  | 1,997                | 2,010  | 2,025  | 2,036  |
| Bergen (V)            | 964                 | 1,018  | 976    | 1,103  | 1,240  | 276              | 29%  | 1,275                | 1,286  | 1,299  | 1,309  |
| Bethany               | 1,569               | 1,978  | 1,876  | 1,808  | 1,760  | 191              | 12%  | 1,737                | 1,728  | 1,727  | 1,728  |
| Byron                 | 1,589               | 2,020  | 2,242  | 2,345  | 2,493  | 904              | 57%  | 2,550                | 2,560  | 2,570  | 2,574  |
| Darien                | 2,357               | 2,745  | 2,950  | 2,979  | 3,048  | 691              | 29%  | 3,059                | 3,048  | 3,036  | 3,022  |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|                  |       |       |       |       |       |       |      |       |       |       |       |
|------------------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| Corfu (V Part)   | 0     | 0     | 0     | 0     | 13    | 13    | -    | 13    | 13    | 13    | 14    |
| Elba             | 1,521 | 1,560 | 1,737 | 1,704 | 1,743 | 222   | 15%  | 1,739 | 1,725 | 1,712 | 1,698 |
| Elba (V)         | 739   | 752   | 750   | 703   | 696   | -43   | -6%  | 687   | 677   | 666   | 657   |
| Le Roy           | 2,117 | 2,873 | 3,119 | 3,202 | 3,328 | 1,211 | 57%  | 3,381 | 3,405 | 3,419 | 3,426 |
| Le Roy (V)       | 4,662 | 5,118 | 4,900 | 4,974 | 4,462 | -200  | -4%  | 4,411 | 4,362 | 4,324 | 4,290 |
| Oakfield         | 1,318 | 1,400 | 1,422 | 1,494 | 1,398 | 80    | 6%   | 1,391 | 1,378 | 1,366 | 1,352 |
| Oakfield (V)     | 2,070 | 1,964 | 1,791 | 1,818 | 1,805 | -265  | -13% | 1,770 | 1,733 | 1,699 | 1,668 |
| Pavilion         | 1721  | 2122  | 2,375 | 2,327 | 2,467 | 746   | 43%  | 2,484 | 2,484 | 2,481 | 2,475 |
| Pembroke         | 2,835 | 3,237 | 3,457 | 3,477 | 3,748 | 913   | 32%  | 3,759 | 3,745 | 3,729 | 3,710 |
| Corfu (V Part)   | 616   | 722   | 689   | 755   | 782   | 166   | 27%  | 783   | 779   | 775   | 770   |
| Stafford         | 2,005 | 2,461 | 2,508 | 2,593 | 2,409 | 404   | 20%  | 2,390 | 2,381 | 2,376 | 2,382 |
| Tonawanda (Res.) | 426   | 488   | 455   | 491   | 533   | 107   | 25%  | 548   | 544   | 534   | 522   |

Source: Regional Population Forecasts: County, City, Town and Village Projections for the Genesee/Finger Lakes Region out to the year 2040, Genesee/Finger Lakes Regional Planning Council, December 2003

With the exception of the Town of Alabama, which lost a slight 3% of its population during the forty years from 1960 to 2000, every town in the County gained people over that period. The three towns that show the greatest growth are Bergen, which grew by 88%; Byron, which grew by 57%; and Le Roy, which also grew by 57%. Towns with more modest but still substantial growth include Pavilion, which grew by 43%; Batavia, which grew by 37%; and Pembroke, which grew by 32%. Several villages also gained substantial numbers of people, including Alexander, which gained 146 people or 44%; Bergen, which gained 276 people or 29%, and Corfu, which gained 166 people or 27%. The Tonawanda Reservation grew by 107 people or 25% from 1960 to 2000.

Three of the County's villages and the City of Batavia have lost population over the forty years from 1960 to 2000. The city lost 1,954 people, or 11% of its population. The Village of Elba lost 43 people, or 6% of its population; the Village of Le Roy lost 200 people, or 4% of its population; and the Village of Oakfield lost 265 people, or 13% of its population.

Of the 22,770 households in Genesee County, 15,823 or 69.5% are family households. 7,572 or 33.3% of these households have children under the age of 18 living with them; 12,611 or 55.4% are married couples living together; and 2,241 or 9.8% have a female householder with no husband present. 6,947 or 30.5% of all households are non-family households. 5,637 or 24.8% of all households have only one householder; and 2,535 or 11.1% of all households have a householder who is 65 years old or older. The average household size in the county is 2.59 people and the average family size is 3.10 people.

The racial makeup of the county's population is 94.7% white, 2.1% black, 0.5% Asian, 0.8% Native American, and 1.2% two or more races. The age distribution of the county's population is 28.8% under the age of 19, 34.4% between the ages of 20 and 44, 25.5% between the ages of 45 and 64, and 14.3% are 65 years of age and older. The median age of a county resident is 37.4 years.

**Table 4.4: Age of Householder, Genesee County, New York**

| Municipality  | Age      |          |          |          |          |          |     |
|---------------|----------|----------|----------|----------|----------|----------|-----|
|               | Under 25 | 25 to 34 | 35 to 44 | 45 to 54 | 55 to 64 | 65 to 74 | 75+ |
| Alabama       | 19       | 158      | 126      | 114      | 102      | 86       | 62  |
| Alexander     | 8        | 158      | 175      | 127      | 129      | 73       | 68  |
| Alexander (V) | 2        | 48       | 40       | 14       | 14       | 12       | 22  |
| Attica (V)    | 52       | 257      | 212      | 137      | 92       | 147      | 165 |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|                  |     |      |      |     |     |     |     |
|------------------|-----|------|------|-----|-----|-----|-----|
| Batavia (City)   | 286 | 1258 | 1092 | 797 | 871 | 987 | 977 |
| Batavia (Town)   | 75  | 415  | 476  | 384 | 354 | 289 | 190 |
| Bergen           | 24  | 229  | 218  | 209 | 130 | 107 | 74  |
| Bergen (V)       | 16  | 111  | 109  | 64  | 40  | 42  | 29  |
| Bethany          | 23  | 113  | 156  | 114 | 102 | 60  | 37  |
| Byron            | 15  | 204  | 199  | 146 | 109 | 82  | 29  |
| Darien           | 26  | 212  | 235  | 194 | 138 | 95  | 63  |
| Elba             | 17  | 161  | 190  | 156 | 132 | 98  | 77  |
| Elba (V)         | 2   | 48   | 55   | 33  | 53  | 28  | 31  |
| Le Roy           | 186 | 618  | 594  | 500 | 399 | 399 | 306 |
| Le Roy (V)       | 153 | 398  | 363  | 220 | 250 | 291 | 224 |
| Oakfield         | 47  | 241  | 253  | 187 | 171 | 171 | 114 |
| Oakfield (V)     | 31  | 127  | 159  | 88  | 89  | 102 | 73  |
| Pavilion         | 36  | 178  | 192  | 128 | 115 | 75  | 67  |
| Pembroke         | 27  | 316  | 300  | 291 | 198 | 192 | 128 |
| Corfu (V)        | 17  | 73   | 42   | 37  | 33  | 19  | 21  |
| Stafford         | 18  | 178  | 231  | 131 | 150 | 141 | 73  |
| Tonawanda (Res.) | 5   | 29   | 16   | 32  | 42  | 27  | 17  |

Source: U.S. Census Bureau, 2000.

**Table 4.5: Median Household Income by Municipality, Genesee County, New York, 1990 and 2000**

| Municipality            | 1990   | 2000   |
|-------------------------|--------|--------|
| Alabama                 | DNA    | 40,223 |
| Alexander               | 31,591 | 43,500 |
| Alexander (V)           | 29,038 | 51,528 |
| Attica (V)              | 26,196 | 40,234 |
| Batavia (City)          | 26,606 | 33,484 |
| Batavia (Town)          | 30,510 | 38,449 |
| Bergen                  | 36,578 | 49,412 |
| Bergen (V)              | 36,528 | 51,016 |
| Bethany                 | 33,155 | 45,450 |
| Byron                   | 35,903 | 49,722 |
| Darien                  | 36,536 | 48,844 |
| Elba                    | 34,896 | 46,161 |
| Elba (V)                | 40,000 | 47,614 |
| Le Roy                  | 31,603 | 39,690 |
| Le Roy (V)              | 28,418 | 33,168 |
| Oakfield                | 28,333 | 41,579 |
| Oakfield (V)            | 27,208 | 40,580 |
| Pavilion                | 31,673 | 48,837 |
| Pembroke                | 30,488 | 41,266 |
| Corfu (V)               | 32,237 | 37,386 |
| Stafford                | 37,500 | 49,516 |
| Tonawanda (Res.)        | 20,962 | 22,200 |
| DNA: Data Not Available |        |        |

Source: U.S. Census Bureau, 2000.

## **SECTION 4.6: GENERAL OVERVIEW**

**Government:** Genesee County is governed by a nine-member County Legislature. The County was originally governed by a Board of Supervisors, but in 1968 the County was organized into nine legislative districts. The Chair of the Legislature is the County's highest elected official. The County Manager, first appointed by the Legislature in 1981, oversees the government's day to day operations by coordinating the activities of the County's twenty-eight departments. The County operates an airport, nursing home, forest, and parks in addition to its more traditional functions. The Genesee Association of Municipalities (GAM) provides a forum where municipal officials meet regularly to discuss inter-municipal issues, coordinate activities, and build consensus regarding common concerns and problems. The County is divided into twenty-one administrative units comprising one city, thirteen towns, six villages, and a small section of a seventh village that straddles the Genesee – Wyoming County line. The County Seat is located in the City of Batavia.

**City (1):** Batavia.

**Towns (13):** Alabama, Alexander, Batavia, Bergen, Bethany, Byron, Darien, Elba, Le Roy, Oakfield, Pavilion, Pembroke, Stafford.

**Villages (7):** Alexander, Attica\*, Bergen, Corfu, Elba, Le Roy, Oakfield.

**School Districts (17):** Akron Central School District\*\*, Albion Central School District\*\*, Alden Central School District\*\*, Alexander Central School District, Attica Central School District\*\*, Batavia City School District, Brockport Central School District\*\*, Byron-Bergen Central School District, Caledonia-Mumford Central School District\*\*, Elba Central School District, Le Roy Central School District, Medina Central School District\*\*, Oakfield-Alabama Central School District, Pavilion Central School District, Pembroke Central School District, Royalton-Hartland Central School District\*\*, Wyoming Central School District\*\*.

**Police Departments (7):** Attica Police Department, Corfu Police Department, Le Roy Police Department, City of Batavia Police Department, Veteran's Administration Police Department, Genesee County Sheriff, New York State Police.

**Fire Departments (18):** Alabama Volunteer Fire Department, Alexander Fire Department, Batavia City Fire Department, Batavia Town Fire Department, Bergen Fire Department, Bethany Volunteer Fire Company, Byron Fire Department No. 1, Corfu Fire Department, Darien Center Chemical Fire Company, East Pembroke Volunteer Fire Department, Elba Fire Department, Indian Falls Fire Department, Le Roy Fire Department, Oakfield Volunteer Fire Department, South Byron Volunteer Fire Company, Stafford Volunteer Fire Department, Pavilion Community Volunteer Fire Company, Pembroke Volunteer Fire Company.

**Ambulance (10):** Alexander Fire Department, City of Batavia Fire Department, Bergen Fire Department, Bethany Volunteer Fire Company, Byron Fire Department, Darien Center Chemical Fire Company, Darien Lake Theme Park & Camping Resort, Le Roy Volunteer Ambulance Services, Oakfield Fire Department, Pavilion Community Volunteer Fire Company.

**Water Supply:** The Monroe County Water Authority (MCWA) retails water to the Towns of Bergen, Byron, Le Roy, Stafford, Pavilion, Pembroke, and Darien as well as the Villages of Corfu, Le Roy, and Bergen. MCWA also provides water wholesale to the Town of Batavia and the Town and Village of Oakfield. The other municipalities in the County rely on their own water supply systems.

**Electric Providers (3):** Rochester Gas & Electric (RG&E), New York State Electric & Gas Corporation (NYSEG), National Grid.

**Natural Gas Providers (3):** Rochester Gas & Electric (RG&E), New York State Electric & Gas Corporation (NYSEG), National Fuel.

**Telecommunications Providers (5):** American Telephone & Telegraph (AT&T), Frontier Telephone, Citizens Telecom, Empire Telephone Corporation, Verizon

**Cable Providers (1):** Time Warner Communications

\*Most of the Village of Attica lies in Wyoming County, but a small area extends north over the county line into Genesee County.

\*\*Denotes a school district based outside Genesee County that serves students living within the county.

| <b>Town of Alabama</b>   | <b>Genesee County, New York<br/>Zip Codes: 14013, 14125, 14001, 14105</b>   |
|--|---|
| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> Alabama is located in the northwest corner of the county. It is bounded on the north by the Town of Shelby in Orleans county; on the east by the Towns of Oakfield and Batavia; on the south by the Town of Pembroke; and on the west by the Town of Newstead in Erie County and the Town of Royalton in Niagara County. The Tonawanda Indian Reservation is located in the southwest section of the town, separating a small portion of the town from the rest (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> Alabama was settled in 1812 and incorporated in 1826.</p> <p><i>Notable Facts:</i> The town was originally named Gerrysville, but the name was changed to Alabama in 1828. The hamlets of Alabama Center, South Alabama, West Alabama, Wheatville, and Basom are located in this town.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mainly flat land, much low lying swamp and muckland, mostly fields with some forested areas<br/> <i>Hydrography:</i> Tonawanda Creek, Oak Orchard Creek<br/> <i>Watersheds:</i> Oak Orchard Creek, Tonawanda Creek, Murder Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 42.8 square miles<br/> <i>Acres:</i> 27,392 acres</p> <p><b>POPULATION TRENDS</b><br/>                     From 1990 to 2000 the population decreased by 5.9%. The population is expected to decrease by 4.5% by 2004 to 1,795 residents.</p> <p><b>DEMOGRAPHICS (Census 2000)</b><br/> <i>Population:</i> 1,881<br/> <i>Sex Ratio:</i> Males: 50.4%, Females: 49.6%<br/> <i>Median Age:</i> 35.3<br/> <i>Median Household Income:</i> \$40,223<br/> <i>Median Family Income:</i> \$45,947<br/> <i>Families Below Poverty Line:</i> 4.7%<br/> <i>Individuals Below Poverty Line:</i> 6.3%<br/> <i>Housing Units:</i> 700<br/> <i>Median Housing Value:</i> \$76,500</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Oakfield-Alabama CSD, Medina CSD, Akron CSD, Royalton-Hartland CSD</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel<br/> <i>Telephone:</i> Empire &amp; Verizon<br/> <i>Water Supply:</i> Private<br/> <i>Waste Water:</i> Private</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> Alabama Volunteer Fire Department<br/> <i>Emergency Medical Services:</i> Alabama Volunteer Fire Department<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Iroquois National Wildlife Refuge (largest New York federal wildlife refuge), Oak Orchard Acid Springs, Tonawanda State Wildlife Management Area., Shallow Hollow Nature Trail<br/> <i>Historic and Cultural Resources:</i> Tonawanda Indian Reservation, Town of Alabama Museum</p> |

| <b>Town of Alexander</b>   | <b>Genesee County, New York<br/>Zip Code: 14005, 14011</b>   |
|--|--|
| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> The town is located in the south-central part of the county, bordered by the Town of Batavia on the north, the Town of Bethany on the East, the Town of Attica in Wyoming County on the south, and the Town of Darien on the west (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> Alexander was settled in 1802 and incorporated in 1812.</p> <p><i>Notable Facts:</i> Alexander Rea, a surveyor who worked for the Holland Land Company, purchased the first lot in the town and built a saw mill there in 1802. The town is named after him.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> The northern half of the town is mostly flat or gently undulating land; the southern half is much steeper and more rugged.<br/> <i>Hydrography:</i> Tonawanda Creek<br/> <i>Watersheds:</i> Upper Tonawanda Creek, Murder Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 35.5 square miles<br/> <i>Acres:</i> 22,720 acres</p> <p><b>POPULATION TRENDS</b><br/>                     From 1990 to 2000, the population grew about 5%. By 2004, the population is projected to decrease by 2% to 2,403 residents.</p> <p><b>DEMOGRAPHICS (Census 2000)</b><br/> <i>Population:</i> 2,451<br/> <i>Sex Ratio:</i> Males: 49.3%; Females: 50.7%<br/> <i>Median Age:</i> 35.5<br/> <i>Median Household Income:</i> \$43,500<br/> <i>Median Family Income:</i> \$51,364<br/> <i>Families Below Poverty Line:</i> 5.0%<br/> <i>Individuals Below Poverty Line:</i> 6.9%<br/> <i>Housing Units:</i> 893<br/> <i>Median Housing Value:</i> \$79,100</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Alexander CSD, Pembroke CSD, Attica CSD</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel<br/> <i>Telephone:</i> Verizon, Empire, Citizens<br/> <i>Water Supply:</i> Municipal (from Attica), Private<br/> <i>Waste Water:</i> Private</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> Alexander Fire Department<br/> <i>Emergency Medical Services:</i> Intermunicipal Ambulance, Alexander Fire Department and Ambulance</p> <p><i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i><br/> <i>Historic and Cultural Resources:</i> Alexander Town Hall, originally built as a school in the late 1830s, is the only three story cobblestone town hall in the U.S., is listed on the National Register, and houses the Alexander museum on the third floor.</p> |

| <b>Village of Alexander</b>   | <b>Genesee County, New York<br/>Zip Code: 14005</b>   |
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| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> The village is centrally located within the Town of Alexander (See Map 1: Genesee County, NY)</p> <p><i>Dates of Settlement and Incorporation:</i> The Village of Alexander was settled in 1802 and incorporated in 1834.</p> <p><i>Notable Facts:</i> The Buffalo &amp; Rochester Railroad (after 1853, the New York Central) came through in 1843. The Alexander Classical School (1837-1886) was housed in a three story cobblestone building that is now the Alexander Town Hall and Museum.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mostly flat land, some hilly areas.<br/> <i>Hydrography:</i> Tonawanda Creek<br/> <i>Watersheds:</i> Tonawanda Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 0.4 square miles<br/> <i>Acres:</i> 256 acres</p> <p><b>POPULATION TRENDS</b><br/>                     The village grew by 8.1% from 1990 to 2000. The population is expected to drop by less than 1% by 2040.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 481<br/> <i>Sex Ratio:</i> Male, 51.6%; Female, 48.4%<br/> <i>Median Age:</i> 32.7<br/> <i>Median Household Income:</i> \$51,528<br/> <i>Median Family Income:</i> \$60,000<br/> <i>Families Below Poverty Line:</i> 0.0%<br/> <i>Individuals Below Poverty Line:</i> 0.8%<br/> <i>Housing Units:</i> 178<br/> <i>Median Housing Value:</i> \$79,300</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Alexander CSD</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel<br/> <i>Telephone:</i> Verizon &amp; Citizens<br/> <i>Water Supply:</i> Municipal, purchased from Attica, NY<br/> <i>Waste Water:</i> Municipal</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> Alexander Fire Department Inc.<br/> <i>Emergency Medical Services:</i> Intermunicipal Ambulance, Alexander Fire Department and Ambulance<br/> <i>Nearby Medical Facilities:</i> United Memorial Hospital, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i><br/> <i>Historic and Cultural Resources:</i> Alexander Town Hall &amp; Museum</p> |

| <b>Village of Attica</b>   | <b>Genesee/Wyoming County, New York<br/>Zip Code: 14011</b>   |
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| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> The Village of Attica straddles Wyoming and Genesee Counties. Most of the village is within Wyoming County, but a small section stretches north into Genesee County and the Town of Alexander (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> Attica was settled in 1802 and the Village of Attica was incorporated in 1837.</p> <p><i>Notable Facts:</i> Families were attracted to this area because of plentiful land from the Holland Land Company. Farming has always been a major occupation of the community. In the 1920s, New York State began to expand its penal system. By March 1929, 697 acres were acquired for a new maximum security prison. Construction began in October; two years later the first inmates were transferred to Attica. The prison became the leading employer for Attica and one of the leading employers for Wyoming County. In 1931 a prison farm was completed. In 1984 a second medium security facility was added. Every summer Attica is home to the Attica Rodeo.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> The flats of the Tonawanda Creek follow Route 98 north toward Batavia through the middle of the town.<br/> <i>Hydrography:</i> Tonawanda Creek, Crow Creek, and Baker Brook. The area has been hit by major floods in 1902, 1972, and 1999.<br/> <i>Watersheds:</i> Upper Tonawanda Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 1.68<br/> <i>Acres:</i> 1,075.2</p> <p><b>POPULATION TRENDS</b><br/>                     Between 1980 and 2000, the population of the village decreased 6.3% from 2,643 to 2,479. It is projected that the Village of Attica will decline 5.4% over the next forty years.<br/>                     (G/FLRPC, 2003)</p> | <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 2,597<br/> <i>Sex Ratio:</i> Male 48.9%, Female 51.1%<br/> <i>Median Age:</i> 35.9<br/> <i>Median Household Income:</i> \$40,234<br/> <i>Median Family Income:</i> \$47,049<br/> <i>Families Below Poverty Line:</i> 6.9%<br/> <i>Individuals Below Poverty Line:</i> 9.9%<br/> <i>Housing Units:</i> 1,165<br/> <i>Median Housing Value:</i> \$72,200</p> <p><b>SCHOOL DISTRICTS</b><br/>                     Attica CSD, Genesee/Wyoming Catholic Center (private, K-8)</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel Gas<br/> <i>Telephone:</i> Verizon, Frontier<br/> <i>Water Supply:</i> Village of Attica<br/> <i>Waste Water:</i> Village of Attica</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Village of Attica Police, Wyoming County Sheriff Department, NYS Police.<br/> <i>Fire Departments:</i> Attica Fire Department<br/> <i>Emergency Medical Services:</i> Attica Fire Department, Monroe Ambulance (through Wyoming County Community Hospital)<br/> <i>Nearby Medical Facilities:</i> Wyoming Community Hospital, Attica Medical Center, Family Care Center, UMMC.</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Java Beagle Club, Veterans Memorial Park, Attica Youth Athletics fields, Attica Rodeo Grounds.<br/> <i>Historic and Cultural Resources:</i> Attica Post Office, Attica Historical Museum, Stevens Community Library, High School Performing Arts Center, and the Attica Rodeo.</p> |

| <b>Town of Batavia</b>  | <b>Genesee County, New York<br/>Zip Code: 14020, 14036</b>   |
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| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> The Town of Batavia is located in the center of the county, and is bordered on the north by the Towns of Oakfield and Elba, on the east by the Town of Stafford, on the south by the Towns of Bethany and Alexander, and on the west by the Towns of Pembroke and Alabama (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> Batavia was settled in the late 1790s and became a town in 1802.</p> <p><i>Notable Facts:</i> Batavia was the first town in Genesee County, and in all of western New York.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mainly flat or gently undulating terrain with some low hills.<br/> <i>Hydrography:</i> Tonawanda Creek, Bowen’s Creek<br/> <i>Watersheds:</i> Tonawanda Creek, Oak Orchard Creek, Black Creek, Murder Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 48.5 square miles<br/> <i>Acres:</i> 31,040 acres</p> <p><b>POPULATION TRENDS</b><br/>                     The Town of Batavia’s population dropped by 2.3% from 1990 to 2000. The population is projected to remain virtually consistent by 2040.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 5,915<br/> <i>Sex Ratio:</i> Males: 48.3%; Females: 51.7%<br/> <i>Median Age:</i> 39.4<br/> <i>Median Household Income:</i> \$38,449<br/> <i>Median Family Income:</i> \$43,425<br/> <i>Families Below Poverty Line:</i> 7.3%<br/> <i>Individuals Below Poverty Line:</i> 9.6%<br/> <i>Housing Units:</i> 2,447<br/> <i>Median Housing Value:</i> \$92,300</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Batavia City SD, Elba CSD, Byron-Bergen CSD, Alexander CSD, Pembroke CSD, Oakfield-Alabama CSD, Notre Dame High School (private, 9-12), St. Joseph Elementary (private, preK-8), St. Mary Elementary School (private, preK-8), St. Paul Lutheran School (private, preK-5)</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel Gas<br/> <i>Telephone:</i><br/> <i>Water Supply:</i> Tonawanda Valley Watershed and Tonawanda Creek in Genesee County, and Lake Ontario and Hemlock Lake from the Monroe County Water Authority<br/> <i>Waste Water:</i> Shoremont and Batavia WTPs</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> Town of Batavia Fire Department<br/> <i>Emergency Medical Services:</i> City of Batavia EMS<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Kiwanis Park<br/> <i>Historic and Cultural Resources:</i> Genesee Community College’s main campus is in Batavia, Batavia Country Club, Genesee Center for the Arts, Genesee Community College Library</p> |

| <b>City of Batavia</b>   | <b>Genesee County, New York<br/>Zip Code: 14020</b>   |
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| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> The City of Batavia is located within the Town of Batavia, in the center of Genesee County (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> The City was settled in the late 1790s, incorporated as a village in 1823, and incorporated as a city in 1915.</p> <p><i>Notable Facts:</i> Batavia is known as the birthplace of Western New York. It was initially settled as the headquarters of the Holland Land Company. The first Union soldier in the Civil War to enlist was from Batavia.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mainly flat land with some very gentle undulations. The terrain here is entirely urbanized and heavily altered from its natural state.<br/> <i>Hydrography:</i> Tonawanda Creek<br/> <i>Watersheds:</i> Upper Tonawanda Creek, Black Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 5.2 square miles<br/> <i>Acres:</i> 3,328 acres</p> <p><b>POPULATION TRENDS</b><br/>                     The city lost .3% of its population from 1990 to 2000. The population is expected to drop 7.7% by 2004 to 15,001 people.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 16,256<br/> <i>Sex Ratio:</i> Males: 48.2%; Females: 51.8%<br/> <i>Median Age:</i> 37.9<br/> <i>Median Household Income:</i> \$33,484<br/> <i>Median Family Income:</i> \$42,460<br/> <i>Families Below Poverty Line:</i> 10.2%<br/> <i>Individuals Below Poverty Line:</i> 12.3%<br/> <i>Housing Units:</i> 6,924<br/> <i>Median Housing Value:</i> \$77,200</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Batavia City SD, Notre Dame High School (private, 9-12), St. Joseph Elementary (private, preK-8), St. Mary Elementary School (private, preK-8), St. Paul Lutheran School (private, prek-5)</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel Oil<br/> <i>Telephone:</i> Verizon &amp; Fronter<br/> <i>Water Supply:</i> City of Batavia<br/> <i>Waste Water:</i> Municipal</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> City of Batavia Police Department, Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> City of Batavia Fire Department<br/> <i>Emergency Medical Services:</i> City of Batavia EMS<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital.</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> The city has several parks, including Centennial Park and DeWitt Recreational Area.<br/> <i>Historic and Cultural Resources:</i> The Holland Land Company Office &amp; Museum, County Historian’s office, Richmond Memorial Library, Genesee County Courthouse Historic District, Batavia Cemetery, GO Art! Cultural Center, PIECES Art Gallery, Batavia Downs.</p> |

| <b>Town of Bergen</b>  | <b>Genesee County, New York<br/>Zip Code: 14416</b>   |
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| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> The Town of Bergen is located in the northeast corner of Genesee County. It is bordered on the north by the Town of Clarendon in Orleans County and the Town of Sweden in Monroe County, on the east by the Towns of Ogden and Riga in Monroe County, on the south by the Town of Le Roy, and on the west by the Town of Byron (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> Bergen was settled in 1801 and incorporated in 1813.</p> <p><i>Notable Facts:</i> Bergen was formed from the Town of Murray in 1813. The Town was originally called Northwoods. The Bergen Swamp is designated a National Natural Landmark. It has attracted naturalists and students to study rare and endangered species of floral and fauna in an unchanged habitat going back 125,000 years.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mainly flat land, much low lying swamp and muckland, mostly fields with some forested areas<br/> <i>Hydrography:</i> Black Creek<br/> <i>Watersheds:</i> Black Creek, Oatka Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 27.6 square miles<br/> <i>Acres:</i> 17,664 acres</p> <p><b>POPULATION TRENDS</b><br/>                     During the 1990's, the town's population grew by approximately 14%. The projected grow by 2040 is 5.1% , or 3,345 residents total.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 3,182<br/> <i>Sex Ratio:</i> Males: 50.7%; Females: 49.3%<br/> <i>Median Age:</i> 37.1<br/> <i>Median Household Income:</i> \$49,412<br/> <i>Median Family Income:</i> 54,012<br/> <i>Families Below Poverty Line:</i> 1.6%<br/> <i>Individuals Below Poverty Line:</i> 4.1%<br/> <i>Housing Units:</i> 1,240<br/> <i>Median Housing Value:</i> \$86,900</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Byron-Bergen CSD, Brockport CSD, Le Roy CSD</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel Gas<br/> <i>Telephone:</i> Frontier &amp; Verizon<br/> <i>Water Supply:</i> Monroe County Water Authority<br/> <i>Waste Water:</i> Private</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> Bergen Fire Department<br/> <i>Emergency Medical Services:</i> Bergen Fire Department<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Bergen Swamp Preserve, Robins Brook Park, Westshore Linear Park.<br/> <i>Historic and Cultural Resources:</i> Byron-Bergen Public Library, Gilliam-Grant Community Center, Gifford-Walker Farm.</p> |

| <b>Village of Bergen</b>   | <b>Genesee County, New York<br/>Zip Code: 14416</b>   |
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| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> The Village of Bergen is located along the eastern border of the Town of Bergen (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> The Village was settled in 1801 and incorporated in 1877.</p> <p><i>Notable Facts:</i> The Village is located on the CSX Railroad’s main line.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mainly flat land, heavily urbanized and altered from its natural state<br/> <i>Hydrography:</i> Black Creek<br/> <i>Watersheds:</i> Black Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 0.6 square miles<br/> <i>Acres:</i> 384 acres</p> <p><b>POPULATION TRENDS</b><br/>                     The village grew by 12.4% from 1990 to 2000. By 2040, the population is expected to increase by 5.6%.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 1,240<br/> <i>Sex Ratio:</i> Males: 51.0%; Females: 49.0%<br/> <i>Median Age:</i> 34.6<br/> <i>Median Household Income:</i> \$51,016<br/> <i>Median Family Income:</i> \$54,327<br/> <i>Families Below Poverty Line:</i> 2.2%<br/> <i>Individuals Below Poverty Line:</i> 3.6%<br/> <i>Housing Units:</i> 477<br/> <i>Median Housing Value:</i> \$83,800</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Byron-Bergen CSD</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> Municipal<br/> <i>Natural Gas:</i> National Fuel Gas<br/> <i>Telephone:</i> Frontier and Verizon<br/> <i>Water Supply:</i> Monroe County Water Authority<br/> <i>Waste Water:</i> Municipal</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> Bergen Fire Department<br/> <i>Emergency Medical Services:</i> Bergen Fire Department<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Hickory Park, Zuber Park<br/> <i>Historic and Cultural Resources:</i> Lake Street Historic District, Bergen Museum of History.</p> |

| <b>Town of Bethany</b>  | <b>Genesee County, New York<br/>Zip Codes: 14054, 14525, 14143, 14020, 14005</b>  |
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| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> The Town of Bethany is located southeast of the City of Batavia, about half way between Rochester and Buffalo. The town is bordered on the north by the Towns of Batavia and Stafford, on the east by the Towns of Stafford and Pavilion, on the south by the Town of Middlebury in Wyoming County, and on the west by the Town of Alexander (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> The town was first settled in 1803 and was incorporated on June 8, 1812.</p> <p><i>Notable Facts:</i> Home to the oldest County Forest in NYS, the Genesee County Park and Forest.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Bethany lies nestled in the foothills of Allegheny Plateau to the south and the Lake Plains to the north, at the shore of an ancient lake. Soils especially to the north are fertile and the climate is temperate.<br/> <i>Hydrography:</i> The Little Tonawanda, Black and White Creeks run through Bethany. Flood zones overlay these creeks.<br/> <i>Watersheds:</i> Tonawanda Creek, Black Creek, Oatka Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 36.1<br/> <i>Acres:</i> 23,104</p> <p><b>POPULATION TRENDS</b><br/>                     From 1990 to 2000, Bethany lost 2.7% of its population. The population is expected to continue to drop 2% by 2040.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 1,760<br/> <i>Sex Ratio:</i> Male: 51.5%; Female: 48.5%<br/> <i>Median Age:</i> 38.0<br/> <i>Median Household Income:</i> \$45,450<br/> <i>Median Family Income:</i> \$50,234<br/> <i>Families Below Poverty Line:</i> 3.2%<br/> <i>Individuals Below Poverty Line:</i> 5.1%<br/> <i>Housing Units:</i> 665<br/> <i>Median Housing Value:</i> \$82,600</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Alexander CSD, Pavilion CSD, Wyoming CSD (K-8).</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel<br/> <i>Telephone:</i> Frontier &amp; Verizon<br/> <i>Water Supply:</i> Private<br/> <i>Waste Water:</i> Private</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff's Department, NYS Police<br/> <i>Fire Departments:</i> Bethany Volunteer Fire Company<br/> <i>Emergency Medical Services:</i> Bethany Volunteer Fire Company; City of Batavia Fire Department<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital, Wyoming County Community Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Genesee County Park and Forest, NYS DEC Recreational Trail, Interpretive Nature Center<br/> <i>Historic and Cultural Resources:</i> The Genesee County Forest; Town Historian's Office (former town hall).</p> |

| <b>Town of Byron</b>   | <b>Genesee County, New York<br/>Zip Code: 14422, 14058</b>  |
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| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> The Town of Byron is in the northeast corner of Genesee County. The town is bordered on the north by the Town of Clarendon in Orleans County, on the east by the Town of Bergen, on the south by the Towns of Le Roy and Stafford, and on the west by the Town of Elba (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> The town of was settled in 1807 and incorporated in 1820.</p> <p><i>Notable Facts:</i> The Town of Byron is the site of the “Byron Dig” (Hiscock Site), a scientific research project run by the Buffalo Museum of Science. The Hiscock Site is considered one of North America’s most important locations for fossils and archaeological artifacts from the Ice Age. It has been the site of numerous findings, including mastodon dinosaur bones.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mainly flat land, much low lying swamp and muckland, mostly fields with some forested areas<br/> <i>Hydrography:</i> There are several creeks and ponds in the Town of Byron.<br/> <i>Watersheds:</i> Oak Orchard Creel, Black Creek, Oatka Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 32.25<br/> <i>Acres:</i> 20,640</p> <p><b>POPULATION TRENDS</b><br/>                     Between 1960 and 2000, the population of the Town of Byron increased by 22% from 1,589 to 2,493. Byron’s population is expected to rise 3.2% by 2040 to 2,574.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 2,493<br/> <i>Sex Ratio:</i> Male, 1,249: 50.1%; Female, 1,244: 49.9%<br/> <i>Median Age:</i> 35.6<br/> <i>Median Household Income:</i> \$49,722<br/> <i>Median Family Income:</i> \$56,927<br/> <i>Families Below Poverty Line:</i> 25<br/> <i>Individuals Below Poverty Line:</i> 123<br/> <i>Housing Units:</i> 922<br/> <i>Median Housing Value:</i> \$89,200</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Byron-Bergen CSD, Elba CSD</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> Rochester Gas &amp; Electric<br/> <i>Telephone:</i> Frontier and Verizon<br/> <i>Water Supply:</i> Monroe County Water Authority and private wells<br/> <i>Waste Water:</i> Municipal and private septic systems, Shoremont WTP</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff’s Department, NYS Police<br/> <i>Fire Departments:</i> Byron Fire Department No. 1, South Byron Volunteer Fire Company Inc.<br/> <i>Emergency Medical Services:</i> Byron Rescue Squad<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> The Bergen Swamp, Mill Pond, Spring, Bigelow and Black Creeks, Trestle Park, Turtle Park, Firemen’s Park, Byron Community Park<br/> <i>Historic and Cultural Resources:</i> Byron Museum,</p> |

| <b>Village of Corfu</b>   | <b>Genesee County, New York<br/>Zip Code: 14036</b>  |
|---|--|
| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> Corfu is located almost entirely in Pembroke, with a small section in Darien (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> The village was settled in 1807 and incorporated in 1868.</p> <p><i>Notable Facts:</i> The village was originally known as Long’s Corners, after an early settler. The name was changed to “Corfu”, after the Greek island, when a Post Office was established there in 1839. The village was once on the mainline of the New York Central system.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mainly flat land, lower elevations around Murder Creek<br/> <i>Hydrography:</i> Murder Creek flows through the village.<br/> <i>Watersheds:</i> Murder Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 1.0 square miles<br/> <i>Acres:</i> 640 acres</p> <p><b>POPULATION TRENDS</b><br/>                     From 1990 to 2000, Corfu’s population grew by 3.5%. It is expected to lose -1.5% of its residents by 2040.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 795<br/> <i>Sex Ratio:</i> Males: 47.3%; Females: 52.7%<br/> <i>Median Age:</i> 34.8<br/> <i>Median Household Income:</i> \$37,386<br/> <i>Median Family Income:</i> \$46,667<br/> <i>Families Below Poverty Line:</i> 1.4%<br/> <i>Individuals Below Poverty Line:</i> 4.2%<br/> <i>Housing Units:</i> 336<br/> <i>Median Housing Value:</i> \$85,700</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Pembroke CSD</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel Gas<br/> <i>Telephone:</i> Citizens<br/> <i>Water Supply:</i> Monroe County Water Authority<br/> <i>Waste Water:</i> Corfu WTP</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> Corfu Fire Department, Indian Falls Fire Department, Pembroke Fire Department<br/> <i>Emergency Medical Services:</i> Corfu Rescue Hook &amp; Ladder Co. #1<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Pembroke Town Park<br/> <i>Historic and Cultural Resources:</i> Corfu Free Library, annual Colonial Days celebration (June)</p> |

| <b>Town of Darien</b>   | <b>Genesee County, New York<br/>Zip Code: 14040, 14036, 14004, 14005</b>  |
|---|---|
| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> Darien is located in the southwest portion of the county. It is bordered on the north by Pembroke, on the east by Alexander, on the south by Bennington in Wyoming County, and on the west by Alden in Erie County (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> Darien was settled in 1803 and incorporated as a town in 1842.</p> <p><i>Notable Facts:</i> Home to the 1,846 acre Darien Lake State Park.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mostly flat, open land with many low lying areas.<br/> <i>Hydrography:</i> Murder Creek<br/> <i>Watersheds:</i> Murder Creek, Ransom Creek, Cayuga Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 47.6 square miles<br/> <i>Acres:</i> 30,464 acres</p> <p><b>POPULATION TRENDS</b><br/>                     Darien grew by 2.3% from 1990 to 2000. However, it is expected to lose -1% of its population, leaving it at 3,022.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 3,061<br/> <i>Sex Ratio:</i> Males: 52.2%; Females: 47.8%<br/> <i>Median Age:</i> 36.8<br/> <i>Median Household Income:</i> \$48,844<br/> <i>Median Family Income:</i> \$50,844<br/> <i>Families Below Poverty Line:</i> 1.8%<br/> <i>Individuals Below Poverty Line:</i> 3.2%<br/> <i>Housing Units:</i> 1,125<br/> <i>Median Housing Value:</i> \$87,600</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Pembroke CSD, Alexander CSD, Alden CSD, Attica CSD</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel Gas<br/> <i>Telephone:</i> Citizens &amp; Verizon<br/> <i>Water Supply:</i> Monroe County Water Authority<br/> <i>Waste Water:</i> Corfu WTP and ECWA</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> Darien Center Chemical Fire Company Inc.<br/> <i>Emergency Medical Services:</i> Darien Center Chemical Fire Company Inc., Darien Lake Theme Park &amp; Camping Resort, Inc.<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Darien Lakes State Park<br/> <i>Historic and Cultural Resources:</i> Six Flags Darien Lake, Six Flags Darien Lake Performing Arts Center, Chestnut Hill Country Club</p> |

| <b>Town of Elba</b>  | <b>Genesee County, New York<br/>Zip Codes: 14058, 14020, 14125</b>  |
|--|---|
| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> Elba is in the north central part of the county. It is bordered on the north by the Town of Barre in Orleans County, on the east by the Town of Byron, on the south by the Towns of Stafford and Batavia, and on the west by Oakfield (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> The town was settled in 1803 and incorporated in 1820.</p> <p><i>Notable Facts:</i> By an act of Congress in 1896, Elba became the first town in the United States to receive free rural mail delivery. The Town is known as the “Onion Capital of the World” due to its large annual onion crop, a product of its rich soils.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mainly flat land, much low lying swamp and muckland, mostly fields with some forested areas<br/> <i>Hydrography:</i> Alabama Swamp, Oak Orchard Creek.<br/> <i>Watersheds:</i> Oak Orchard Creek, Black Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 35.7 square miles<br/> <i>Acres:</i> 22,848 acres</p> <p><b>POPULATION TRENDS</b><br/>                     The Town of Elba lost about 1.8% of its population from 1990 to 2000. Its decline is projected to continue by 2040, with a further loss of -3.4% of its population. In 2040, the population is projected to be 2,355.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 2,439<br/> <i>Sex Ratio:</i> Males: 50.6%; Females: 49.4%<br/> <i>Median Age:</i> 36.6<br/> <i>Median Household Income:</i> \$46,161<br/> <i>Median Family Income:</i> \$51,058<br/> <i>Families Below Poverty Line:</i> 5.9%<br/> <i>Individuals Below Poverty Line:</i> 6.5%<br/> <i>Housing Units:</i> 910<br/> <i>Median Housing Value:</i> \$82,500</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Elba CSD, Albion CSD, Oakfield-Alabama CSD, Byron-Bergen CSD</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> NYSEG<br/> <i>Telephone:</i> Verizon<br/> <i>Water Supply:</i> Private<br/> <i>Waste Water:</i> Private</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> Elba Volunteer Fire Department<br/> <i>Emergency Medical Services:</i> Elba Volunteer Fire Department<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Veteran’s Memorial Park<br/> <i>Historic and Cultural Resources:</i> Onion Festival (every August); Elba Historical Society Museum.</p> |

| <b>Village of Elba</b>  | <b>Genesee County, New York<br/>Zip Code: 14058</b>   |
|---|---|
| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> The Village of Elba is located in the center of the Town of Elba (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> The Village was settled in 1803 and incorporated in 1884.</p> <p><i>Notable Facts:</i> The Village was named for the island of Elba.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mostly fields and relatively flat<br/> <i>Hydrography:</i><br/> <i>Watersheds:</i> Oak Orchard Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 1.0 square miles<br/> <i>Acres:</i> 640 acres</p> <p><b>POPULATION TRENDS</b><br/>                     There was a -1% decrease in the village’s population in the 1990’s. By 2040, the population is expected to drop -5.6%.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 696<br/> <i>Sex Ratio:</i> Males: 50.7%; Females: 49.3%<br/> <i>Median Age:</i> 37.2<br/> <i>Median Household Income:</i> \$47,614<br/> <i>Median Family Income:</i> \$51,042<br/> <i>Families Below Poverty Line:</i> 5.6%<br/> <i>Individuals Below Poverty Line:</i> 5.7%<br/> <i>Housing Units:</i> 258<br/> <i>Median Housing Value:</i> \$81,700</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Elba CSD</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel<br/> <i>Telephone:</i> Verizon<br/> <i>Water Supply:</i> Municipal<br/> <i>Waste Water:</i> Municipal</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> Elba Volunteer Fire Department<br/> <i>Emergency Medical Services:</i> Elba Volunteer Fire Department<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Center</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Elba Village Park<br/> <i>Historic and Cultural Resources:</i> Onion Festival in August</p> |

| <b>Town of Le Roy</b>   | <b>Genesee County, New York<br/>Zip Codes: 14482, 14416</b>  |
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| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> The Town of Le Roy is located at the eastern end of the county. The town is bordered on the north by the Town of Bergen and the Town of Riga in Monroe County, on the east by the Town of Wheatland in Monroe County and the Town of Caledonia in Livingston County, on the south by the Town of Pavilion, and on the west by the Town of Stafford (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> The Town settled in the 1790s and incorporated in 1812</p> <p><i>Notable Facts:</i> The Town of Le Roy was the flour capital in the early 19<sup>th</sup> century. It is famous for salt products, pharmaceutical products, and crushed stone products. It is the original home of Jell-O.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mainly flat or gently undulating terrain with some low hills.<br/> <i>Hydrography:</i> Oatka Creek<br/> <i>Watersheds:</i> Oatka Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 42<br/> <i>Acres:</i> 26,897</p> <p><b>POPULATION TRENDS</b><br/>                     From 1990 to 2000, the Town of Leroy’s population decreased about -3.5%. By 2040, the population is expected to drop to 7716, a -1.0% decrease.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 7790<br/> <i>Sex Ratio:</i> Male: 48.2%; Female: 51.8%<br/> <i>Median Age:</i> 38.1<br/> <i>Median Household Income:</i> \$39,690<br/> <i>Median Family Income:</i> \$49,189<br/> <i>Families Below Poverty Line:</i> 3.8%<br/> <i>Individuals Below Poverty Line:</i> 5.6%<br/> <i>Housing Units:</i> 3219<br/> <i>Median Housing Value:</i> \$86,200</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     LeRoy CSD, Byron-Bergen CSD, Caledonia-Mumford CSD, Holy Family School (private, K-8), BOCES Genesee Valley (preK)</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> Rochester Gas &amp; Electric<br/> <i>Telephone:</i> Frontier &amp; Verizon<br/> <i>Water Supply:</i> Monroe County Water Authority<br/> <i>Waste Water:</i> Private</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> Le Roy Volunteer Fire Department<br/> <i>Emergency Medical Services:</i> Le Roy Volunteer Ambulance<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Bunnell Park picnic area and walking trails, Limerock Park, Buttermilk Falls<br/> <i>Historic and Cultural Resources:</i> Woodward Memorial Library, Le Roy Historical Society, Village and Town Offices, Oatka Festival in July, Summer Concert Series on the Oatka Creek bank, The Jell-O Museum, Le Roy Airport, Le Roy Country Club.</p> |

| <b>Village of Le Roy</b>  | <b>Genesee County, New York<br/>Zip Code: 14482</b>   |
|---|---|
| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> The Village of Le Roy is located in the center of the Town of Le Roy (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> The village was settled in 1797 and incorporated in 1834.</p> <p><i>Notable Facts:</i> Jell-O was invented in Le Roy. Other key local industries included patent medicine, brooms, crushed stone, salt, and insulators. The Le Roy Female Seminary, which was set up in the village in 1837, was chartered as Ingham University in 1857 and was the first all-female university in the United States.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> The village is mostly flat or gently sloping land; it is heavily urbanized and built up.<br/> <i>Hydrography:</i> Oatka Creek<br/> <i>Watersheds:</i> Oatka Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 2.7 square miles<br/> <i>Acres:</i> 1,728 acres</p> <p><b>POPULATION TRENDS</b><br/>                     From 1990 to 2000, the village’s population decreased by -10.3%. Its decline is projected to be 2.7% by 2040 to 4,290.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 4,462<br/> <i>Sex Ratio:</i> Males: 46.6%; Females: 53.4%<br/> <i>Median Age:</i> 37.7<br/> <i>Median Household Income:</i> \$33,168<br/> <i>Median Family Income:</i> \$43,594<br/> <i>Families Below Poverty Line:</i> 6.1%<br/> <i>Individuals Below Poverty Line:</i> 7.3%<br/> <i>Housing Units:</i> 1,980<br/> <i>Median Housing Value:</i> \$82,100</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Le Roy CSD, Holy Family School (private, K-8), BOCES Genesee Valley (preK)</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel Gas<br/> <i>Telephone:</i> Frontier &amp; Verizon<br/> <i>Water Supply:</i> Monroe County Water Authority<br/> <i>Waste Water:</i> Shoremont WTP</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police, Village of Le Roy Police Department<br/> <i>Fire Departments:</i> Le Roy Fire Department<br/> <i>Emergency Medical Services:</i> Le Roy Volunteer Ambulance<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Le Roy Arboretum, The Courts, Trigon Park, Mill Street Park, Wildwood Park, Presidential Acres Park, Genesee Park, Le Roy Community Pool, Hartwood Park.<br/> <i>Historic and Cultural Resources:</i> Jell-O Museum, Keeney House, Le Roy House, many historic buildings in the downtown core area.</p> |

| <b>Town of Oakfield</b>  | <b>Genesee County, New York<br/>Zip Code: 14125</b>  |
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| <p><b>COMMUNITY DESCRIPTION</b></p> <p><i>Location/Boundaries:</i> Oakfield is located in north central Genesee County. It is bordered on the north by the Town of Barre in Orleans County, on the east by the Town of Elba, on the south by the Town of Batavia, and on the west by the Town of Alabama (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> The town was settled in 1801 and incorporated from part of the Town of Elba in 1842.</p> <p><i>Notable Facts:</i> Oakfield had one of the county’s earliest private schools, the Cary Collegiate Seminary, founded in 1840 and in operation until 1905. Gypsum was discovered in the town in 1825, and mined and manufactured into wallboard by the US Gypsum Company from 1902 to 1998.</p> <p><b>LANDSCAPE FEATURES</b></p> <p><i>Topography:</i> Mainly flat land, much low lying swamp and muckland, mostly fields with some forested areas</p> <p><i>Hydrography:</i> Oak Orchard Creek, Tonawanda Swamp</p> <p><i>Watersheds:</i> Oak Orchard Creek</p> <p><b>AREA</b></p> <p><i>Square Miles:</i> 23.9 square miles</p> <p><i>Acres:</i> 15,296 acres</p> <p><b>POPULATION TRENDS</b></p> <p>The town’s population dropped by about 3% from 1990 to 2000. The population is expected to drop by 5.7% by 2040 to 3,020.</p> <p><b>DEMOGRAPHICS (Census 2000)</b></p> <p><i>Population:</i> 3,203</p> <p><i>Sex Ratio:</i> Males: 48.8%; Females: 51.2%</p> <p><i>Median Age:</i> 35.9</p> <p><i>Median Household Income:</i> \$41,579</p> <p><i>Median Family Income:</i> \$45,506</p> <p><i>Families Below Poverty Line:</i> 5.2%</p> <p><i>Individuals Below Poverty Line:</i> 7.8%</p> <p><i>Housing Units:</i> 1,250</p> <p><i>Median Housing Value:</i> \$72,400</p> | <p><b>SCHOOL DISTRICTS</b></p> <p>Oakfield-Alabama CSD, Elba CSD</p> <p><b>UTILITIES</b></p> <p><i>Electricity:</i> National Grid</p> <p><i>Natural Gas:</i> National Fuel Gas</p> <p><i>Telephone:</i> Verizon</p> <p><i>Water Supply:</i> Monroe County Water Authority</p> <p><i>Waste Water:</i> Shoremont and Batavia WTPs</p> <p><b>PUBLIC SAFETY</b></p> <p><i>Police Departments:</i> Genesee County Sheriff, NYS Police</p> <p><i>Fire Departments:</i> Oakfield Fire Department</p> <p><i>Emergency Medical Services:</i> Oakfield Fire Department</p> <p><i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b></p> <p><i>Parks/Preserves:</i> Oak Orchard State Wildlife Management Area</p> <p><i>Historic and Cultural Resources:</i></p> |

| <b>Village of Oakfield</b>   | <b>Genesee County, New York<br/>Zip Code: 14125</b>  |
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| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> The Village of Oakfield is located within the Town of Oakfield (See Map 1: Genesee County, NY).<br/> <i>Dates of Settlement and Incorporation:</i> The village was settled in 1801 and incorporated in 1858.<br/> <i>Notable Facts:</i></p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mostly flat and built up.<br/> <i>Hydrography:</i> Oak Orchard Creek, Tonawanda Swamp<br/> <i>Watersheds:</i> Oak Orchard Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 0.7 square miles<br/> <i>Acres:</i> 448 acres</p> <p><b>POPULATION TRENDS</b><br/>                     The village’s population dropped by -.7% from 1990 to 2000. The population is projected to drop -7.8% by 2040 to 1,668.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 1,805<br/> <i>Sex Ratio:</i> Males: 48.2%; Females: 51.8%<br/> <i>Median Age:</i> 34.3<br/> <i>Median Household Income:</i> \$40,580<br/> <i>Median Family Income:</i> \$45,270<br/> <i>Families Below Poverty Line:</i> 8.0%<br/> <i>Individuals Below Poverty Line:</i> 11.6%<br/> <i>Housing Units:</i> 702<br/> <i>Median Housing Value:</i> \$68,700</p> | <p><b>SCHOOL DISTRICTS</b><br/>                     Oakfield-Alabama CSD</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel Gas<br/> <i>Telephone:</i> Verizon<br/> <i>Water Supply:</i> Monroe County Water Authority<br/> <i>Waste Water:</i> Shoremont and Batavia WTPs</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> Oakfield Fire Department<br/> <i>Emergency Medical Services:</i> Oakfield Fire Department<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Triangle Park<br/> <i>Historic and Cultural Resources:</i> Oakfield Historical Society, Haxton Memorial Library, Concerts in the Park during summer</p> |

| <b>Town of Pavilion</b>  | <b>Genesee County, New York<br/>Zip Codes: 14525, 14482, 14054</b>   |
|--|--|
| <p><b>COMMUNITY DESCRIPTION</b><br/> <b>Location/Boundaries:</b> The Town of Pavilion is located in the southeastern corner of Genesee County. The town is bordered on the north by the Town of Le Roy, on the east by the Towns of Caledonia and York in Livingston County, on the south by the Town of Covington in Wyoming County, and on the west by the Town of Bethany (See Map 1: Genesee County, NY).</p> <p><b>Dates of Settlement and Incorporation:</b> The town was settled in 1805 and incorporated in 1842.</p> <p><b>Notable Facts:</b> Rochester &amp; Southern Railroad runs through Pavilion. Spectra Site Broadcast tower is located in Pavilion (1,000' tower). Man-made Lake LeRoy (Perkins) is located in Pavilion. The town's hamlets include Pavilion Center, Pavilion, and Texaco Town.</p> <p><b>LANDSCAPE FEATURES</b><br/> <b>Topography:</b> Mainly flat or gently undulating terrain with some low hills in the south of the town.<br/> <b>Hydrography:</b> Oatka Creek runs north from Warsaw, Wyoming County, to its confluence with the Genesee River in Scottsville, southern Monroe County.<br/> <b>Watersheds:</b> Oatka Creek, Canaseraga Creek</p> <p><b>AREA</b><br/> <b>Square Miles:</b> 35.63<br/> <b>Acres:</b> 22,803.20</p> <p><b>POPULATION TRENDS</b><br/>                     Between 1960 and 2000, the population of the town of Pavilion showed a slow, steady increase from 1721 to 2467. Its population is projected to remain relatively stable by 2040.</p> <p><b>DEMOGRAPHICS (Census 2000)</b><br/> <b>Population:</b> 2467<br/> <b>Sex Ratio:</b> Male: 50.7%; Female: 49.3%<br/> <b>Median Age:</b> 36.8<br/> <b>Median Household Income:</b> \$48,837<br/> <b>Median Family Income:</b> \$51,750</p> | <p><b>Families Below Poverty Line:</b> 3.9%<br/> <b>Individuals Below Poverty Line:</b> 5.4%<br/> <b>Housing Units:</b> 930<br/> <b>Median Housing Value:</b> \$83,800</p> <p><b>SCHOOL DISTRICTS</b><br/>                     Pavilion CSD, Le Roy CSD</p> <p><b>UTILITIES</b><br/> <b>Electricity:</b> National Grid<br/> <b>Natural Gas:</b> Rochester Gas &amp; Electric; National Fuel<br/> <b>Telephone:</b> Frontier &amp; Verizon<br/> <b>Water Supply:</b> Municipal and private, Monroe County Water Authority<br/> <b>Waste Water:</b> Municipal and private</p> <p><b>PUBLIC SAFETY</b><br/> <b>Police Departments:</b> Genesee County Sheriff, NYS Police<br/> <b>Fire Departments:</b> Pavilion<br/> <b>Emergency Medical Services:</b> Pavilion Fire Department Rescue Squad; City of Batavia Ambulance<br/> <b>Nearby Medical Facilities:</b> United Memorial Medical Center; VA Hospital, Wyoming County Community Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <b>Parks/Preserves:</b> Henry B. Wright Town Park<br/> <b>Historic and Cultural Resources:</b> Pavilion Public Library</p> |

| <b>Town of Pembroke</b>   | <b>Genesee County, New York<br/>Zip Codes: 14001, 14036, 14020</b>  |
|---|---|
| <p><b>COMMUNITY DESCRIPTION</b><br/> <b>Location/Boundaries:</b> The Town of Pembroke is the central town along the west border of the County. The town is bordered on the north by the Town of Alabama, on the east by the Town of Batavia, on the south by the Town of Darien, and on the west by the Town of Newstead in Erie County (See Map 1: Genesee County, NY).</p> <p><b>Dates of Settlement and Incorporation:</b> The town was first settled in 1804 and incorporated (from part of the Town of Batavia) in 1812.</p> <p><b>Notable Facts:</b> The town was named for a place in Wales. The hamlets of Brick House Corners, Pembroke, Pembroke Center, East Pembroke, North Pembroke, Indian Falls, and Prospect Hill in this town. State Routes 77, 5, and 33, as well as a portion of Interstate I-90, running through the town.</p> <p><b>LANDSCAPE FEATURES</b><br/> <b>Topography:</b> Generally flat land, some gentle, rolling hills.<br/> <b>Hydrography:</b> Tonawanda Creek<br/> <b>Watersheds:</b> Murder Creek, Tonawanda Creek</p> <p><b>AREA</b><br/> <b>Square Miles:</b> 41.7 square miles<br/> <b>Acres:</b> 26,688 acres</p> <p><b>POPULATION TRENDS</b><br/> As of 2000, there were 4,530 people in the town. The town had 4,232 people in 1990 and 4,530 in 2000, an increase of 7.0%. By 2040, there is a projected population decrease of -1.1%.</p> <p><b>DEMOGRAPHICS (Census 2000)</b><br/> <b>Population:</b> 4530<br/> <b>Sex Ratio:</b> Males: 49.0%; Females: 51.0%<br/> <b>Median Age:</b> 37.2<br/> <b>Median Household Income:</b> \$41,266<br/> <b>Median Family Income:</b> \$46,495<br/> <b>Families Below Poverty Line:</b> 2.6%<br/> <b>Individuals Below Poverty Line:</b> 4.8%</p> | <p><b>Housing Units:</b> 1,776<br/> <b>Median Housing Value:</b> \$91,700</p> <p><b>SCHOOL DISTRICTS</b><br/> Pembroke CSD, Akron CSD, Oakfield-Alabama CSD</p> <p><b>UTILITIES</b><br/> <b>Electricity:</b> National Grid<br/> <b>Natural Gas:</b> National Fuel Gas<br/> <b>Telephone:</b> Verizon, Empire, Citizens<br/> <b>Water Supply:</b> Municipal (only partial), Monroe County Water Authority<br/> <b>Waste Water:</b> None for town (Village of Corfu sewer plant)</p> <p><b>PUBLIC SAFETY</b><br/> <b>Police Departments:</b> Genesee County Sheriff, NYS Police<br/> <b>Fire Departments:</b> Village of Corfu, Pembroke Fire Company, Indian Falls Fire Department, East Pembroke Fire Department<br/> <b>Emergency Medical Services:</b> Corfu Fire Department, Indian Falls Fire Department, East Pembroke Volunteer Fire Department<br/> <b>Nearby Medical Facilities:</b> Pembroke Family Care (doctor's office), United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <b>Parks/Preserves:</b> Murder Creek and Tonawanda Creek, Indian Falls, Tonawanda Indian Reservation.<br/> <b>Historic and Cultural Resources:</b> Village of Corfu Free Library. The Brick House Corners Fair is held each September and commemorates the town's history, farms, and local crafts. The Onondaga Formation (Onondaga Escarpment) is a group of hard limestones and dolostones of Devonian age that form an important geographic feature in the area of outcrop.</p> |

| <b>Town of Stafford</b>  | <b>Genesee County, New York<br/>Zip Codes: 14143, 14482, 14020, 14422</b>   |
|--|---|
| <p><b>COMMUNITY DESCRIPTION</b><br/> <i>Location/Boundaries:</i> Stafford is located in the eastern central section of the county. It is bordered on the north by the Towns of Elba and Byron, on the east by the Town of Le Roy, on the east and south by the Town of Pavilion, on the south by the Town of Bethany, and on the west by the Town of Batavia (See Map 1: Genesee County, NY).</p> <p><i>Dates of Settlement and Incorporation:</i> The town was settled in 1798 and incorporated in 1820.</p> <p><i>Notable Facts:</i> The Rochester Zen Center runs a Buddhist retreat facility in the town, it was built in 2000. Part of the 1984 movie <i>The Natural</i>, starring Robert Redford, was filmed in the town. In the late 1800s, the Morganville Pottery company produced drain tiles, flowerpots, and glazed wares in the town.</p> <p><b>LANDSCAPE FEATURES</b><br/> <i>Topography:</i> Mainly flat or gently undulating terrain with some low hills.<br/> <i>Hydrography:</i> Black Creek<br/> <i>Watersheds:</i> Tonawanda Creek, Black Creek, Oatka Creek</p> <p><b>AREA</b><br/> <i>Square Miles:</i> 31.2 square miles<br/> <i>Acres:</i> 19,968 acres</p> <p><b>POPULATION TRENDS</b><br/>                     During the 1990s, the Town of Stafford’s population decreased by -7.1%. The population is expected to continue to decline by 1.1% by 2040.</p> <p><b>DEMOGRAPHICS</b> (Census 2000)<br/> <i>Population:</i> 2,409<br/> <i>Sex Ratio:</i> Males: 50.4%; Females: 49.6%<br/> <i>Median Age:</i> 40.1<br/> <i>Median Household Income:</i> \$49,516<br/> <i>Median Family Income:</i> \$54,667<br/> <i>Families Below Poverty Line:</i> 3.0%</p> | <p><i>Individuals Below Poverty Line:</i> 3.7%<br/> <i>Housing Units:</i> 997<br/> <i>Median Housing Value:</i> \$85,400</p> <p><b>SCHOOL DISTRICTS</b><br/>                     Le Roy CSD, Byron-Bergen CSD, Batavia City, Pavilion CSD</p> <p><b>UTILITIES</b><br/> <i>Electricity:</i> National Grid<br/> <i>Natural Gas:</i> National Fuel Gas<br/> <i>Telephone:</i> Frontier &amp; Verizon<br/> <i>Water Supply:</i> Monroe County Water Authority<br/> <i>Waste Water:</i> Shoremont WTP</p> <p><b>PUBLIC SAFETY</b><br/> <i>Police Departments:</i> Genesee County Sheriff, NYS Police<br/> <i>Fire Departments:</i> Stafford Fire Department<br/> <i>Emergency Medical Services:</i> Stafford Volunteer Fire Department<br/> <i>Nearby Medical Facilities:</i> United Memorial Medical Center, VA Hospital</p> <p><b>NATURAL, CULTURAL, &amp; HISTORIC RESOURCES</b><br/> <i>Parks/Preserves:</i> Emery Park, Illette Park<br/> <i>Historic and Cultural Resources:</i> Stafford Museum of History, Morganville Pottery Factory Site (archaeological site).</p> |

## **Chapter 5: Hazard Analysis**

### **SECTION 5.1: PURPOSE**

The purpose of the Hazard Analysis is twofold: 1.) Identify all natural, technological and human-caused hazards that might affect Genesee County and its municipalities, and 2.) Narrow the list to those hazard types that are most likely to occur and present the greatest threat of potential impact.

### **SECTION 5.2: PROCESS**

The Hazard Analysis was completed in several steps. The first step, undertaken before the official beginning of the all-hazard mitigation planning process, consisted of the development of a Hazard Analysis Report by the County's Emergency Management Office. Using the Hazards New York (HAZNY) program, a group of county and municipal officials ranked potential hazard events that could impact the county. This report was initially developed in June 2003; it was updated first in March 2004 and then again in February 2005. The Genesee County All-Hazard Mitigation Plan relies on the February 2005 update. See Table 3.3 in Chapter 3 for a list of the attendees at the February update meeting.

The second step involved analyzing the countywide hazard ranking with groups of municipal officials and county agency/non-municipal representatives at the Regional (Municipal) and County Agency/Non-Municipal meetings, held in late July and early August 2006. At these meetings the attendees were asked to review the countywide hazard ranking and adjust it so as to account for hazard concerns specific to their municipality or agency. The main focus of this activity was to determine any differences between the county-wide hazard ranking and individual municipal hazard concerns.

The final step involved developing hazard profiles that define the hazard, examine previous hazard incidents and discuss the impacts of those hazards on the county, and estimate the probability of future events. These hazard profiles can be found in Chapter 6, *Review of Past Hazard Events*.

#### **Subsection 5.2.A: HAZNY Event**

On February 18<sup>th</sup>, 2005, the Genesee County Office of Emergency Management Services carried out an update of the County's Hazard Analysis Report. The Office of Emergency Management Services orchestrated this update and used the automated program Hazards New York (HAZNY) to complete the hazard analysis review. The HAZNY program was developed by the American Red Cross and the New York State Emergency Management Office. The results from this hazard assessment are discussed in this chapter, and the full report is at the end of the chapter.

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. The program then calculates a score for each of the hazards analyzed, based on the responses to the questions. The program includes historical and expert data on selected hazards and is designed specifically for groups of stakeholders, rather than for individual use. This ranking of hazards provides the community with a factual basis for prioritizing the community's resources to prepare for, respond to, and mitigate against the hazards that pose the greatest risk to the community. The participants were listed in Table 3.3 in Chapter 3.

The five categories covered by the HAZNY program are: Scope, Frequency, Impact, Duration, and Onset.

**Scope** indicates the size of an area that would be impacted by a potential hazard. For this hazard analysis category, HAZNY participants are asked if the hazard in question has the capability of triggering other hazards in a cascading effect. The area of the impact of the hazard itself and its cascading effects, where they exist, are analyzed.

**Frequency** predicts how often a hazard has occurred in the past and could occur in the future.

**Impact** analyzes how the hazard will impact the lives and safety of people, as well as possible damage to public and private property. Specifically, impact is concerned with the hazard’s ability to seriously injure or kill people, create private economic impact as well as impact on public facilities.

**Onset** inquires about warning time; that is, how much time is there between the initial recognition of the approaching hazard and when the hazard will impact the community in question.

**Duration** analyzes how long the expected hazard will remain active; that is, over what period of time does the hazard occur, or how long will it take the community to recover from the event.

The participants in the HAZNY session analyzed hazards that could potentially affect the municipalities within Genesee County. HAZNY rated the hazards based on the assessment and assigned each hazard a numerical value. These values are categorized as follows:

- 321 to 400**      **High Hazard**
- 241 to 320**      **Moderately High Hazard**
- 161 to 240**      **Moderately Low Hazard**
- 44 to 160**        **Low Hazard**

**Table 5.1: Genesee County Hazard Rankings**

| Hazard                     | Rating | Hazard                | Rating |
|----------------------------|--------|-----------------------|--------|
| Hazmat (In Transit)        | 308    | Winter Storm (Severe) | 225    |
| Ice Storm                  | 287    | Dam Failure           | 222    |
| Fire                       | 284    | Severe Storms         | 218    |
| Flood                      | 280    | Ice Jam               | 197    |
| Hazmat (Fixed Site)        | 273    | Terrorism             | 196    |
| Water Supply Contamination | 262    | Drought               | 188    |
| Transportation Accident    | 255    | Tornado               | 176    |
| Earthquake                 | 238    | Air Contamination     | 166    |
| Electrical Grid Failure    | 238    | Extreme Temperatures  | 166    |
| Epidemic                   | 238    | Civil Unrest          | 163    |

Source: Genesee County HAZNY Report, 2005

**High Hazards**

This analysis did not identify any High Hazards.

**Moderately High Hazards**

This analysis identified seven Moderately High Hazards: Hazmat Spills (In Transit), Ice Storms, Fires, Floods, Hazmat Spills (Fixed Site), Water Supply Contamination, and Transportation Accident.

**Moderately Low Hazards**

This analysis identified thirteen Moderately Low Hazards: Earthquakes, Electrical Grid Failures, Epidemics, Winter Storms (Severe), Dam Failures, Severe Storms, Ice Jams, Terrorism, Droughts, Tornados, Air Contamination, Extreme Temperatures, and Civil Unrest.

**Low Hazards**

This analysis did not identify any Low Hazards.

**Additional Hazards:** Based on the New York State Standard Multi-Hazard Mitigation Plan and consultations with NYSEMO officials, two additional natural hazards have been profiled for Genesee County: Landslides and Wildfires.

These hazards were assigned a “Low” priority due to the fact that County and municipal officials do not consider them important enough to include within the Hazard Analysis Report. In addition, information in the *NYS Standard Multi-Hazard Mitigation Plan* indicates that while these hazards threaten the County, they are not significant risks. Even if they were to occur, they would not result in significant injury/loss of life or property damage. Historical research supports these conclusions. Only one landslide is known to have happened in the County, and past wildfire incidents have been isolated and extinguished without causing significant damage to lives or property.

The following tables break down the information in Table 5.1 into two categories, Natural Hazard Rankings and Technological/Human-Caused Hazard Rankings. This was done to separate the natural from the human-caused hazards for ease of review and to differentiate the two categories from each other.

Table 5.2 lists the County’s Natural Hazard rankings.

**Table 5.2: Genesee County Natural Hazard Rankings**

| Natural Hazard        | Ranking |
|-----------------------|---------|
| Ice Storm             | 287     |
| Flood                 | 280     |
| Earthquake            | 238     |
| Epidemic              | 238     |
| Winter Storm (Severe) | 225     |
| Severe Storms         | 218     |
| Ice Jam               | 197     |
| Drought               | 188     |
| Tornado               | 176     |
| Air Contamination     | 166     |
| Extreme Temperatures  | 166     |
| Landslides            | N/A*    |
| Wildfires             | N/A*    |

\* “Landslides” and “Wildfires” were not assessed in the Hazard Analysis Report and therefore do not have a numerical ranking assigned to them.

As the above table indicates, Genesee County’s highest ranked natural hazards include ice storms, floods, and earthquakes. The occurrence of severe weather events such as ice storms, winter storms, severe storms, tornados, and extreme temperatures, cannot be eliminated. However, the Mitigation Strategy will identify potential techniques of reducing the impact of these events. Similarly, hazards

such as earthquakes, epidemics, and droughts cannot be avoided, but the impact of these events can be reduced in part through proper mitigation techniques.

Dangers from flooding and ice jams, however, can be drastically reduced by steering new development away from flood prone land, removing existing buildings and structures from floodplains, and by implementing mitigation projects aimed at safeguarding those buildings and structures that remain within flood prone areas. Much of the Mitigation Strategy focuses on reducing potential flood damages.

Table 5.3 lists the County’s Technological and Human-Caused Hazard rankings.

**Table 5.3: Genesee County Technological and Human-Caused Hazard Rankings**

| Man-Made Hazard            | Ranking |
|----------------------------|---------|
| Hazmat (In Transit)        | 308     |
| Fire                       | 284     |
| Hazmat (Fixed Site)        | 273     |
| Water Supply Contamination | 262     |
| Transportation Accident    | 255     |
| Electrical Grid Failure    | 238     |
| Dam Failure                | 222     |
| Terrorism                  | 196     |
| Civil Unrest               | 163     |

As the above table indicates, Genesee County’s highest ranked human-caused hazards include Hazardous Materials (HAZMAT) incidents (both in transit and fixed site incidents), fires, water supply contamination, and transportation accidents. Other man-made hazards of concern are electrical grid failure, dam failure, terrorism, and civil unrest. While the emphasis of this plan is on addressing natural hazards and most of the proposed projects in the Mitigation Strategy focus on remediating natural hazards, the Planning Committee also discussed the potential impacts of the highest ranked human-caused hazards and how to reduce the County’s vulnerability to those events.

**Subsection 5.2.B: County Agency Review and Priorities**

At the County Agency/Non-Municipal meeting held in early August 2006, the representatives of county departments, agencies and other non-municipal entities were given a list of the countywide hazard ranking. They were asked to comment on this list, especially with regards to their own departmental and agency concerns. The attendees at this meeting expressed satisfaction with the hazard ranking and did not wish to alter it. They agreed that the mitigation projects they would include in the plan’s Mitigation Strategy would focus on remediating the highest ranked natural hazards.

**Subsection 5.2.C: Municipal Hazard Review and Priorities**

At the July and August 2006 regional meetings the municipal representatives were asked to review and discuss their perspective on the county-wide hazard rating. This was done by comparing the countywide hazard rating with individual municipal hazard ratings. Each municipal official was asked for comments regarding his/her municipality’s hazard concerns. These officials were in broad agreement regarding the HAZNY results. However, they did note where their local hazard issued differed from the countywide hazard ratings.

This municipal level analysis resulted in the hazard priorities shown in Table 5.4. This table was created by placing an **X** under every hazard ranked “High” and “Moderately High” by municipal officials at the Regional meetings.

**Table 5.4: Genesee County Municipal Hazard Priorities**

|                      | Hazard | Hazmat (In Transit) | Ice Storm | Fire | Flood | Hazmat (Fixed Site) | Water Supply Contamination | Transportation Accident | Earthquake | Utility/Electric Grid Failure | Epidemic | Severe Winter Storm | Dam Failure | Severe Storms | Ice Jam | Terrorism | Drought | Tornado | Air Contamination | Extreme Temperatures | Civil Unrest | Landslide | Wildfire |   |
|----------------------|--------|---------------------|-----------|------|-------|---------------------|----------------------------|-------------------------|------------|-------------------------------|----------|---------------------|-------------|---------------|---------|-----------|---------|---------|-------------------|----------------------|--------------|-----------|----------|---|
| <b>Municipality</b>  |        |                     |           |      |       |                     |                            |                         |            |                               |          |                     |             |               |         |           |         |         |                   |                      |              |           |          |   |
| Town of Alabama      |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              | x         |          | x |
| Town of Alexander    |        | x                   | x         | x    | x     | x                   | x                          | x                       | x          |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| Village of Alexander |        | x                   | x         | x    | x     | x                   | x                          | x                       | x          |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| Village of Attica    |        | x                   | x         | x    | x     | x                   | x                          | x                       | x          |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| City of Batavia      |        | x                   | x         | x    | x     | x                   |                            | x                       | x          |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| Town of Batavia      |        | x                   | x         | x    | x     | x                   |                            | x                       | x          |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| Town of Bergen       |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| Village of Bergen    |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| Town of Bethany      |        | x                   | x         | x    | x     | x                   | x                          | x                       | x          |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| Town of Byron        |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          | x |
| Village of Corfu     |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| Town of Darien       |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| Town of Elba         |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          | x |
| Village of Elba      |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| Town of Le Roy       |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   | x           | x             |         |           |         |         |                   |                      |              |           |          |   |
| Village of Le Roy    |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   | x           | x             |         |           |         |         |                   |                      |              |           |          |   |
| Town of Oakfield     |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          | x |
| Village of Oakfield  |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| Town of Pavilion     |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| Town of Pembroke     |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |
| Town of Stafford     |        | x                   | x         | x    | x     | x                   | x                          | x                       |            |                               |          | x                   |             | x             |         |           |         |         |                   |                      |              |           |          |   |

Sources: Regional (Municipal) Committee Meetings, G/FLRPC, July/August 2006.

Table 5.4 indicates that municipal officials are in broad agreement with the countywide hazard ranking. Overall, there are no major differences between the countywide ranking and individual municipal hazard concerns. Hazards such as HAZMAT (In Transit & Fixed Site) incidents, Ice Storms, Fires, Floods, Water Supply Contamination incidents, Transportation Accidents, and Severe Winter Storms are all critical concerns among municipal officials.

However, there are some differences which are reflected in the table. The City and Town of Batavia are not as concerned with water supply contamination as are most other areas of the County because of their state of the art water treatment facility, as well as their numerous back up sources.

The entire County is potentially vulnerable to earthquakes, but the south-central parts of the County are the only areas with a history of minor earthquake events. Municipalities located in these areas are

the ones most concerned with earthquakes, which happen very rarely but have the potential to cause widespread, if moderate, damage.

According to the NYS Standard Multi-Hazard Mitigation Plan, landslides are not a minor concern in Genesee County. Based on that Plan and locally available records, no municipal officials deemed landslides to pose a significant threat to their communities.

Wildfires, while not a critical concern for the entire County, are a municipal concern for the northern towns that contain large areas of muckland. These towns are Alabama, Byron, Elba, and Oakfield.

Please see the hazard profiles in Chapter 6 for more detailed information on each ranked hazard.

#### **Subsection 5.2.D: Review of Past Hazard Events**

Past hazard events are profiled in tables found in the following chapter. The purpose of these historical hazard tables is simply to identify the significant hazard events that have occurred in Genesee County in the past. By studying these events, and in particular their causes, locations, extents, and impacts, the Planning Committee can gain valuable insight on the potential for a hazard event to occur in the future. Furthermore, understanding the impacts of past hazard events is useful for developing practical Mitigation Measures aimed at breaking historic cycles of hazard events.

## GENESEE COUNTY, NEW YORK

### HAZARD ANALYSIS REPORT

#### Background

On February 18, 2005, Genesee County conducted a review of the hazard analysis completed in March 2003.

The Group analyzed hazards potentially affecting Genesee County. The *HAZNY* program, developed by the American Red Cross and the State Emergency Management Office, rated each hazard based on the Group's assessment and assigned a numerical value.

These values are categorized as follows:

**321 to 400 HIGH HAZARD**  
**241 to 320 MODERATELY HIGH HAZARD**  
**161 to 240 MODERATELY LOW HAZARD**  
**44 to 160 LOW HAZARD**

The Group rated the 20 hazards as follows:

| <i><b>Hazard</b></i>                  | <i><b>Rating</b></i> |
|---------------------------------------|----------------------|
| <i><b>HAZMAT (IN TRANSIT)</b></i>     | <b>308</b>           |
| <i><b>ICE STORM</b></i>               | <b>287</b>           |
| <i><b>FIRE</b></i>                    | <b>284</b>           |
| <i><b>FLOOD</b></i>                   | <b>280</b>           |
| <i><b>HAZMAT (FIXED SITE)</b></i>     | <b>273</b>           |
| <i><b>WATER SUPPLY</b></i>            | <b>262</b>           |
| <i><b>TRANS ACCIDENT</b></i>          | <b>255</b>           |
| <i><b>EARTHQUAKE</b></i>              | <b>238</b>           |
| <i><b>ELECTRICAL GRID FAILURE</b></i> | <b>238</b>           |
| <i><b>EPIDEMIC</b></i>                | <b>238</b>           |
| <i><b>WINTER STORM</b></i>            | <b>225</b>           |
| <i><b>DAM FAILURE</b></i>             | <b>222</b>           |
| <i><b>SEVERE STORMS</b></i>           | <b>218</b>           |
| <i><b>ICE JAM</b></i>                 | <b>197</b>           |
| <i><b>TERRORISM</b></i>               | <b>196</b>           |
| <i><b>DROUGHT</b></i>                 | <b>188</b>           |
| <i><b>TORNADO</b></i>                 | <b>176</b>           |
| <i><b>AIR CONTAMINATION</b></i>       | <b>166</b>           |
| <i><b>EXTREME TEMPS</b></i>           | <b>166</b>           |
| <i><b>CIVIL UNREST</b></i>            | <b>163</b>           |

**Hazard(s) rated as moderately high: HAZMAT (IN TRANSIT), ICE STORM, FIRE, FLOOD, HAZMAT (FIXED SITE), WATER SUPPLY, TRANS ACCIDENT**

**HAZMAT (IN TRANSIT):** 308, Moderately High Hazard

**Potential Impact:** Throughout a Large Region  
**Cascade Effects:** Highly Likely  
**Frequency:** A Regular Event  
**Onset:** No Warning  
**Hazard Duration:** Two to Three Days  
**Recovery Time:** Three Days to One Week

**Impact:**

- Serious Injury or Death to Large Numbers
- Severe Damage to Private Property
- Moderate Structural Damage to Public Facilities

This risk category continues to be a Moderately High Hazard. However, it has been moved to the top of the list with a score of 308 as a result of re-evaluating the potential impact over a large geographic region. The credible worst cast scenario was based on a catastrophic failure as a result of a highway or rail incident. Eleven major state and federal highways with high traffic volume crisscross Genesee County. In addition, two Class 1 railroads, one of which is a Key Route (high volume hazardous materials transportation route) pass through the County, increasing the likelihood of an incident. There were several small hazardous materials transportation incidents during the past year and one with major potential. Hazmat spills in transit are a frequent event in Genesee County, requiring an emergency response multiple times per year. The Group determined that a credible worst case event could impact a large region, causing serious injury or death to large numbers of people. The basis of this determination is the fact that the number of casualties would require the full or nearly full activation of the County's medical facilities' disaster plans. Additional factors are the likelihood that an accident would occur without warning, and in the case of a toxic chemical spill involving a rail car or tanker truck, could take two to three days to burn off.

**ICE STORM:** 287, Moderately High Hazard

**Potential Impact:** Throughout a Large Region  
**Cascade Effects:** Highly Likely  
**Frequency:** A Regular Event  
**Onset:** Several Hours Warning  
**Hazard Duration:** Two to Three Days  
**Recovery Time:** Three Days to One Week

**Impact:**

- Serious Injury or Death is Likely, but not in Large Numbers
- Severe Damage to Private Property
- Severe Structural Damage to Public Facilities

Ice Storms, rated at 287, are a regular event in Genesee County, occurring once every one to seven years. The Group determined that a worst case ice storm could result in severe private property damage, primarily utility transmission lines and poles.

**History of Emergencies/Declarations:**

- January 1998 – Ice Storm. FEMA 1196 DR NY - \$183,149 received in Disaster Initiative Recovery grant money
- January 31 - February 1, 2002 – Ice Storm.

**FIRE:** 284, Moderately High Hazard

**Potential Impact:** Throughout a Large Region  
**Cascade Effects:** Some Potential  
**Frequency:** A Regular Event  
**Onset:** No Warning  
**Hazard Duration:** Two to Three Days  
**Recovery Time:** Three Days to One Week

**Impact:**

- Serious Injury or Death is Likely, but not in Large Numbers
- Severe Damage to Private Property
- Moderate Structural Damage to Public Facilities

Fire, rated at 284, is a regular event requiring the activation of the County’s emergency forces between once a year and once every seven years. The Group determined that a credible worst case fire involving an entire block in the City of Batavia, would constitute a small region, but the effects could be felt across a large region depending on the location and result in severe damage to private property. It would likely result in serious injury or death, but not in large numbers. It was determined that any casualties could be adequately treated through the normal operation of the County’s emergency medical system. Such a fire would occur without any warning and could burn for two to three days.

**FLOOD:** 280, Moderately High Hazard

**Potential Impact:** Throughout a Large Region  
**Cascade Effects:** Some Potential  
**Frequency:** A Regular Event  
**Onset:** Several Hours Warning  
**Hazard Duration:** Two to Three Days  
**Recovery Time:** Three Days to One Week

**Impact:**

- Serious Injury or Death is Likely, but not in Large Numbers
- Severe Damage to Private Property
- Severe Structural Damage to Public Facilities

Flood, rated at 280, is a regular event, the most recent being January 1976 and January 1998. The potential area of impact was determined to be a large region. The closing of part of the

Thruway (1-90), located within a flood plain, has been required. The Group determined that severe damage to both private property and public infrastructure would be likely in a worst case event. Serious injury or death might result from such a flood, but not in large numbers.

**History of Emergencies/Declarations:**

- February 23-29, 1985 – Flooding. FEMA 734 DR-NY - Flood related emergency resulting from heavy rains combined with melting snow due to unseasonably warm weather.
  - Monies Received: City Batavia: \$50,000 flood damage, \$20,000 repair sewer line collapse. Town Batavia: damage minimal.
- June 22, 1989 – Severe Flash Flooding. Major rainstorm, inundated portions of highway system destroying and damaging roads and bridges.
  - Cost of repair caused by flooding: Genesee County \$1,142,100; Town of Oakfield \$10,000; Town of Darien \$6,000; Town of Stafford \$20,000; Town of Alexander \$27,500; Town of Bethany \$122,500; Town of Pavilion \$115,000.
- January 19, 1996 – Flood. FEMA 1095 DR NY - Road washouts – Alexander, Bethany, Pembroke, Stafford, City of Batavia. Assistance denied.
- July, 1998 – Flooding. FEMA 1233 DR NY
  - Monies received: Village of Attica \$14,068
- January 24, 1999 – Flooding. Limited state of emergency. Ice jam flooding and flash flood potential.

**HAZMAT (FIXED SITE): 273, Moderately High Hazard**

|                                 |                        |
|---------------------------------|------------------------|
| <b><u>Potential Impact:</u></b> | Several Locations      |
| <b><u>Cascade Effects:</u></b>  | Some Potential         |
| <b><u>Frequency:</u></b>        | A Regular Event        |
| <b><u>Onset:</u></b>            | No Warning             |
| <b><u>Hazard Duration:</u></b>  | Two to Three Days      |
| <b><u>Recovery Time:</u></b>    | Three Days to One Week |
| <b><u>Impact:</u></b>           |                        |

- Serious Injury or Death to Large Numbers
- Severe Damage to Private Property
- Little or No Structural Damage to Public Facilities

Hazardous Materials at Fixed Sites was rated 273. There have been numerous activations of the County hazmat team to various facilities within the County. There are several locations within the County and an airborne release at many of these facilities could cover a small region and cause serious injury or death to large numbers of people. The number of casualties from such an event would likely require the full or nearly full activation of the County’s medical disaster plans.

**WATER SUPPLY: 262, Moderately High Hazard**

**Potential Impact:** Throughout a Small Region  
**Cascade Effects:** Some Potential  
**Frequency:** An Infrequent Event  
**Onset:** No Warning  
**Hazard Duration:** More Than One Week  
**Recovery Time:** More Than Two Weeks

**Impact:**

- Serious Injury or Death is Likely, but not in Large Numbers
- Moderate Damage to Private Property
- Severe Structural Damage to Public Facilities

Water Supply Failure, rated at 262, was determined to be an infrequent event in the County. A credible worst case event, such as contamination or a failure of the City of Batavia water treatment plant, would likely impact a small region of the County. The medical expert in the Group believed that a worst case event would occur without warning and possible result in serious injury or death due to contamination of the municipal water supply. However, any casualties could be adequately treated through the normal operation of the County's emergency medical system.

**TRANS ACCIDENT: 255, Moderately High Hazard**

**Potential Impact:** Throughout a Large Region  
**Cascade Effects:** Some Potential  
**Frequency:** A Regular Event  
**Onset:** No Warning  
**Hazard Duration:** Less Than One Day  
**Recovery Time:** One to Two Days

**Impact:**

- Serious Injury or Death to Large Numbers
- Moderate Damage to Private Property
- Little or No Structural Damage to Public Facilities

Transportation Accidents, rated at 255, are a regular event requiring the activation of emergency forces between once a year and once every seven years. Referring to an Amtrak passenger train accident in the County a few years ago, where over 200 people were injured, the Group determined that a similar event would result in serious injury or death to large numbers when considering the size and rural nature of the County. As it did in the aforementioned accident, the County's emergency medical system could become overwhelmed, requiring outside assistance.

**Hazard(s) rated as moderately low: EARTHQUAKE, ELECTRICAL GRID FAILURE, EPIDEMIC, WINTER STORM, DAM FAILURE, SEVERE STORMS, ICE JAM, TERRORISM, DROUGHT, TORNADO, AIR CONTAMINATION, EXTREME TEMPS, CIVIL UNREST**

**EARTHQUAKE: 238, Moderately Low Hazard**

**Potential Impact:** Throughout a Large Region

**Cascade Effects:** Highly Likely

**Frequency:** A Rare Event

**Onset:** No Warning

**Hazard Duration:** Less Than One Day

**Recovery Time:** Three Days to One Week

**Impact:**

- Serious Injury or Death to Large Numbers
- Severe Damage to Private Property
- Severe Structural Damage to Public Facilities

Earthquake, rated at 238, is a rare event in the County. However, the southeast corner of the County lies within the “Clarendon-Linden” fault, and the adjacent Wyoming County has experience earthquake activity in the past on more than one occasion.

**ELECTRICAL GRID FAILURE: 238, Moderately Low Hazard**

**Potential Impact:** Throughout a Large Region

**Cascade Effects:** Highly Likely

**Frequency:** An Infrequent Event

**Onset:** No Warning

**Hazard Duration:** Four days to One Week

**Recovery Time:** One to Two Days

**Impact:**

- Serious Injury or Death is Likely, but not in Large Numbers
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

In previous Hazard Analyses Electrical Grid Failure was not considered. In the lifetime of most of the participants, the electrical grid had only failed once, November 1965. However, another grid failure occurred in August 2003. The impact of this event along with the potential that it could happen again caused this category to be evaluated as an individual risk. Electrical Grid Failure is listed as a moderately high hazard with a score of 238. While the impact could affect a large geographic area with cascading effects highly likely, the frequency and recovery time are minimal. Serious injury or death is likely, but not in large numbers. Damage to public and private property is moderate.

**History of Emergencies/Declarations:**

- August 14-16, 2003 – Power Outage. FEMA 3186 EM NY
  - Monies received: Labor and equipment. Emergency Management - \$63.74; City DPW - \$330.82; Sheriff’s - \$162.95; County Highway - \$83.18; City Batavia Water and Waste Treatment Dept. - \$379.82; City Batavia Police - \$230.41. Total: \$1,250.92.

**EPIDEMIC: 238, Moderately Low Hazard**

**Potential Impact:** Throughout a Large Region

**Cascade Effects:** Highly Likely

**Frequency:** A Rare Event

**Onset:** No Warning

**Hazard Duration:** More Than One Week

**Recovery Time:** More Than Two Weeks

**Impact:**

- Serious Injury or Death to Large Numbers
- Moderate Damage to Private Property
- Little or No Structural Damage to Public Facilities

Epidemic was rated at 238. However, the Group's medical expert at the 1999 HAZNY update was quite certain that a serious flu epidemic will occur in the near future. "It's just a matter of time," he said. He anticipated that three to eight percent of the population in the general area would be affected, creating a severe shortage of vaccine.

**WINTER STORM:** 225, Moderately Low Hazard

**Potential Impact:** Throughout a Large Region

**Cascade Effects:** Highly Likely

**Frequency:** A Regular Event

**Onset:** One Day Warning

**Hazard Duration:** Two to Three Days

**Recovery Time:** One to Two Days

**Impact:**

- Serious Injury or Death is Likely, but not in Large Numbers
- Moderate Damage to Private Property
- Little or No Structural Damage to Public Facilities

Winter Storm, rated at 225, and was considered to be a regular event occurring between once a year and once every seven years. The "Blizzard of 77" was a viable model for a credible worst case event. The County has a history of relatively severe winter storms, which have necessitated the activation of its emergency forces. The Group agreed that cascade effects, such as power failures and transportation accidents, are likely to happen in a severe winter storm. Serious injury or death might be expected as a result of accidents, but not in large numbers.

**History of Emergencies/Declarations:**

- January 19-23, 1985 – Blizzard. Heavy snow, high winds
- March 12-15, 1993 – Blizzard. FEMA 3107 EM NY - Snowplowing Assistance.
- January 1-15, 1999 – Winter Storm. FEMA 3136 EM NY - Heavy snowfall and high winds

- Monies received: Batavia City Schools \$4,345; Town of Oakfield \$2,755; Genesee County Hwy \$12,520; Town of Alabama \$4,459; Town of Alexander \$2,693; City Batavia \$27,544; Town of Batavia \$6,643; Village of Bergen \$2,993; Town of Bergen \$5,632; Town of Bethany \$3,201; Town of Byron \$5,223; Town of Darien \$10,157; Village of Elba \$2,229; Town of Elba \$4,096; Village of LeRoy \$7,478; Town of LeRoy \$4,162; Town of Pavilion \$4,075; Town of Pembroke \$7,189; Town of Stafford \$6,676
- December 2001 – Snow Storm. FEMA 3170 EM DR NY - Snow removal operations reimbursement
  - Monies received: Town of Alexander \$11,797, Town of Pembroke \$14,496; Town of Alabama \$18,561; Town of Bethany \$8,837; Town of Darien \$19,223; Town of Oakfield \$9,770; City \$26,721; Town of Batavia \$17,042; Town of Byron \$7,341; Town of Bergen \$7,031; Town of Elba \$11,722; Town of LeRoy \$7,391; Town of Pavilion \$13,682; Town of Stafford \$14,550; Genesee County \$36,427. Total Genesee County: \$224,597.

**DAM FAILURE: 222, Moderately Low Hazard**

**Potential Impact:** Throughout a Small Region

**Cascade Effects:** Highly Likely

**Frequency:** A Rare Event

**Onset:** No Warning

**Hazard Duration:** Two to Three Days

**Recovery Time:** Three Days to One Week

**Impact:**

- Serious Injury or Death is Likely, but not in Large Numbers
- Severe Damage to Private Property
- Severe Structural Damage to Public Facilities

Dam Failure, rated at 222, was determined to be a rare event in the County. A credible worst case event, such as the failure of the Main Street Dam in Le Roy, NY, would likely impact a small region of the County. The Group believed that a worst case event would occur without warning and possibly result in serious injury or death due to flooding. However, any casualties could be adequately treated through the normal operation of the County's emergency medical system. There are no recorded such events in the modern history of Genesee County.

**SEVERE STORMS: 218, Moderately Low Hazard**

**Potential Impact:** Throughout a Large Region

**Cascade Effects:** Some Potential

**Frequency:** A Regular Event

**Onset:** Several Hours Warning

**Hazard Duration:** Less Than One Day

**Recovery Time:** One to Two Days

**Impact:**

- Serious Injury or Death Unlikely
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

Severe Storm, rated at 218, and was considered to be a regular event occurring between once a year and once every seven years. The Group agreed that cascade effects, such as power failures, fires due to lightning and transportation accidents, are likely to happen in severe storms.

**ICE JAM: 197, Moderately Low Hazard**

**Potential Impact:** Several Locations  
**Cascade Effects:** Highly Likely  
**Frequency:** A Regular Event  
**Onset:** Several Days Warning  
**Hazard Duration:** Four days to One Week  
**Recovery Time:** One to Two Days

**Impact:**

- Serious Injury or Death Unlikely
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

Ice Jam, rated at 197, is a regular event. Cascade effects are likely in the case of flooding as it happened in the flood that resulted from an ice jam on the Tonawanda Creek in 1942. This jam caused record flood levels for the City of Batavia despite the fact that the storm was only a ten year event.

**TERRORISM: 196, Moderately Low Hazard**

**Potential Impact:** Several Locations  
**Cascade Effects:** Some Potential  
**Frequency:** A Rare Event  
**Onset:** No Warning  
**Hazard Duration:** One Day  
**Recovery Time:** Three Days to One Week

**Impact:**

- Serious Injury or Death to Extremely Large Numbers
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

Terrorism, rated at 196, is a rare event in Genesee County. However, because of the number of variables encountered when attempting to arrive at a credible worst case event, it was difficult for the Group to address this issue. Airborne or waterborne chemical, biological, or radiological agents were discussed. The Group concluded that several locations or “targets”

could be impacted resulting in serious injury or death to extremely large numbers of people. The Group acknowledged that planning for terrorist acts is becoming increasingly important, although not an easy task at the local level.

**DROUGHT:** 188, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region  
**Cascade Effects:** Highly Likely  
**Frequency:** An Infrequent Event  
**Onset:** More Than One Week Warning  
**Hazard Duration:** More Than One Week  
**Recovery Time:** Three Days to One Week  
**Impact:**
- Serious Injury or Death Unlikely
  - Severe Damage to Private Property
  - Little or No Structural Damage to Public Facilities

Drought, rated at 188, was determined to be an infrequent event. HAZNY's listing of historical droughts indicated the last one occurring in 1961. However, since that time, the level of water in the LeRoy reservoir has been so low at times, that water had to be pumped in from another source. However, LeRoy no longer gets its water from the reservoir, and has switched to a more reliable regional source.

**TORNADO:** 176, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region  
**Cascade Effects:** Some Potential  
**Frequency:** An Infrequent Event  
**Onset:** Several Hours Warning  
**Hazard Duration:** Less Than One Day  
**Recovery Time:** One to Two Days  
**Impact:**
- Serious Injury or Death is Likely, but not in Large Numbers
  - Moderate Damage to Private Property
  - Moderate Structural Damage to Public Facilities

Tornado, rated at 176, is an infrequent event occurring between once every eight years and once every fifty years. Since 1950, Genesee County has had only one tornado, which was of a relatively low intensity.

**AIR CONTAMINATION:** 166, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region  
**Cascade Effects:** Some Potential  
**Frequency:** An Infrequent Event

- Onset:** Several Days Warning  
**Hazard Duration:** Four days to One Week  
**Recovery Time:** One to Two Days  
**Impact:**
- Serious Injury or Death is Likely, but not in Large Numbers
  - Little or No Damage to Private Property
  - Little or No Structural Damage to Public Facilities

Air Contamination, rated at 166, is an infrequent event. It was not considered to be a significant hazard in Genesee County.

**EXTREME TEMPS: 166, Moderately Low Hazard**

- Potential Impact:** Throughout a Large Region  
**Cascade Effects:** Some Potential  
**Frequency:** An Infrequent Event  
**Onset:** Several Days Warning  
**Hazard Duration:** Four days to One Week  
**Recovery Time:** One to Two Days  
**Impact:**
- Serious Injury or Death is Likely, but not in Large Numbers
  - Little or No Damage to Private Property
  - Little or No Structural Damage to Public Facilities

Extreme Temperatures, rated at 166, is an infrequent event. It was not considered to be a significant hazard in Genesee County.

**CIVIL UNREST: 163, Moderately Low Hazard**

- Potential Impact:** Several Locations  
**Cascade Effects:** Highly Likely  
**Frequency:** A Rare Event  
**Onset:** Several Hours Warning  
**Hazard Duration:** One Day  
**Recovery Time:** One to Two Days  
**Impact:**
- Serious Injury or Death is Likely, but not in Large Numbers
  - Severe Damage to Private Property
  - Moderate Structural Damage to Public Facilities

Civil Unrest, rated at 163, is an infrequent event. It was not considered to be a significant hazard in Genesee County.

**Greatest Hazards**

**HAZARDS THAT OCCUR WITH NO WARNING\***

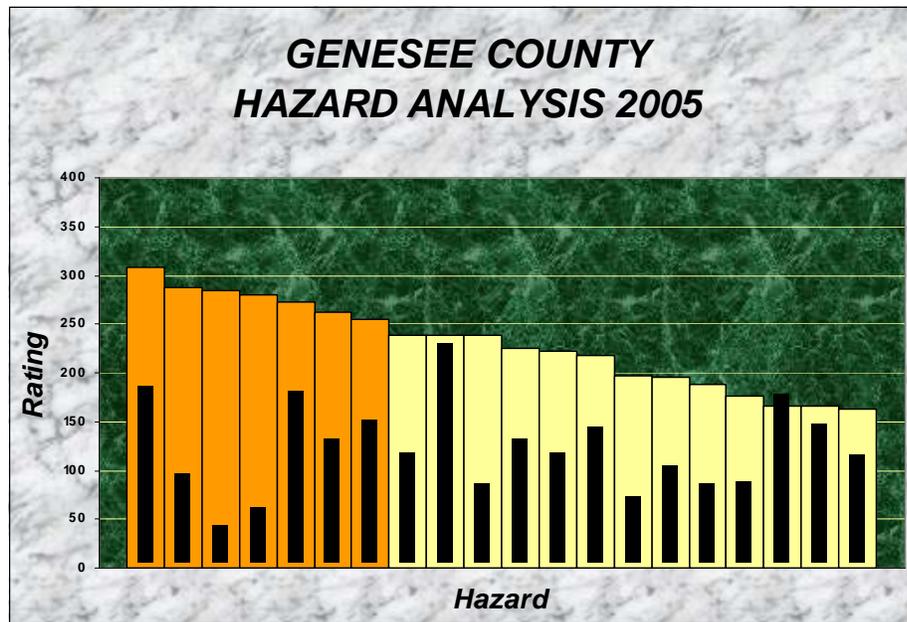
- HAZMAT (IN TRANSIT)**
- FIRE**
- HAZMAT (FIXED SITE)**
- WATER SUPPLY**
- TRANS ACCIDENT**
- EARTHQUAKE**
- ELECTRICAL GRID FAILURE**
- EPIDEMIC**
- DAM FAILURE**
- TERRORISM**

\* No warning was selected from the Onset Tab.

**HAZARDS THAT PRESENT THE GREATEST THREAT TO LIFE\***

- HAZMAT (IN TRANSIT)**
- HAZMAT (FIXED SITE)**
- TRANS ACCIDENT**
- EARTHQUAKE**
- EPIDEMIC**
- TERRORISM**

\*Serious injury and death in extremely large numbers was selected from the Impact Tab.



**Figure 1: Chart of Hazards vs. Ratings**

## Chapter 6: *Hazard Profiles*

### INTRODUCTION

As mentioned in the previous chapter, this chapter provides a profile for each potential hazard in Genesee County. The history of each hazard examined in the Hazard Analysis is profiled here by listing known past incidents and describing their causes, locations, geographic area, and impacts on lives, property, and the environment.

Each hazard is profiled in a section that includes six subsections:

- The official NYSEMO definition, found in the HAZNY program;
- A brief discussion of the known historical occurrences of a hazard;
- A brief discussion of the physical impacts of the hazard;
- Estimates and costs of damages (if available);
- A determination of future probability (if data is available to calculate this);
- An explanation of the research done to compile the hazard profile.

In addition, where detailed information is available, a summary of past hazard events is provided in table format to offer additional information about the impacts of hazard events on the County.

For ease of review, this chapter is organized into two parts. Natural hazards are profiled in Part I, *Natural Hazard Profiles*. Human-caused hazards are profiled in Part II, *Man-made Hazard Profiles*.

The following hazards are profiled in Part I: Ice Storms, Floods, Earthquakes, Epidemics, Severe Winter Storms, Severe Storms, Ice Jams, Droughts, Tornadoes, Air Contamination, Extreme Temperatures, Landslides, Wildfires.

The following hazards are profiled in Part II: HAZMAT (In-Transit), Fires, HAZMAT (Fixed Site), Water Supply Contamination, Transportation Accident, Electrical Grid/Utility Failure, Dam Failure, Terrorism, Civil Unrest.

In general, information for this chapter was collected from the *New York State Standard Multi-Hazard Mitigation Plan*, the digital *All-Hazard Mitigation Plan Development Toolkit* prepared by FEMA and NYSEMO, Genesee County and municipal officials, the Genesee County Historian's Office, and online resources such as the National Climatic Data Center's U.S. Storm Events Database. Additional sources are noted under the "Research" subsection of each section.

### CRITERIA FOR FUTURE PROBABILITY

Each hazard profile has a section that displays a percentage figure for future probability. This percentage, unless otherwise noted, was calculated by dividing the number of recorded past incidents by the number of years for which good records are available.

High Probability – A percentage ranging from 75 to 100 and above.

Moderate Probability – A percentage ranging from 25 to 74.

Low Probability – A percentage ranging from 0 to 24.

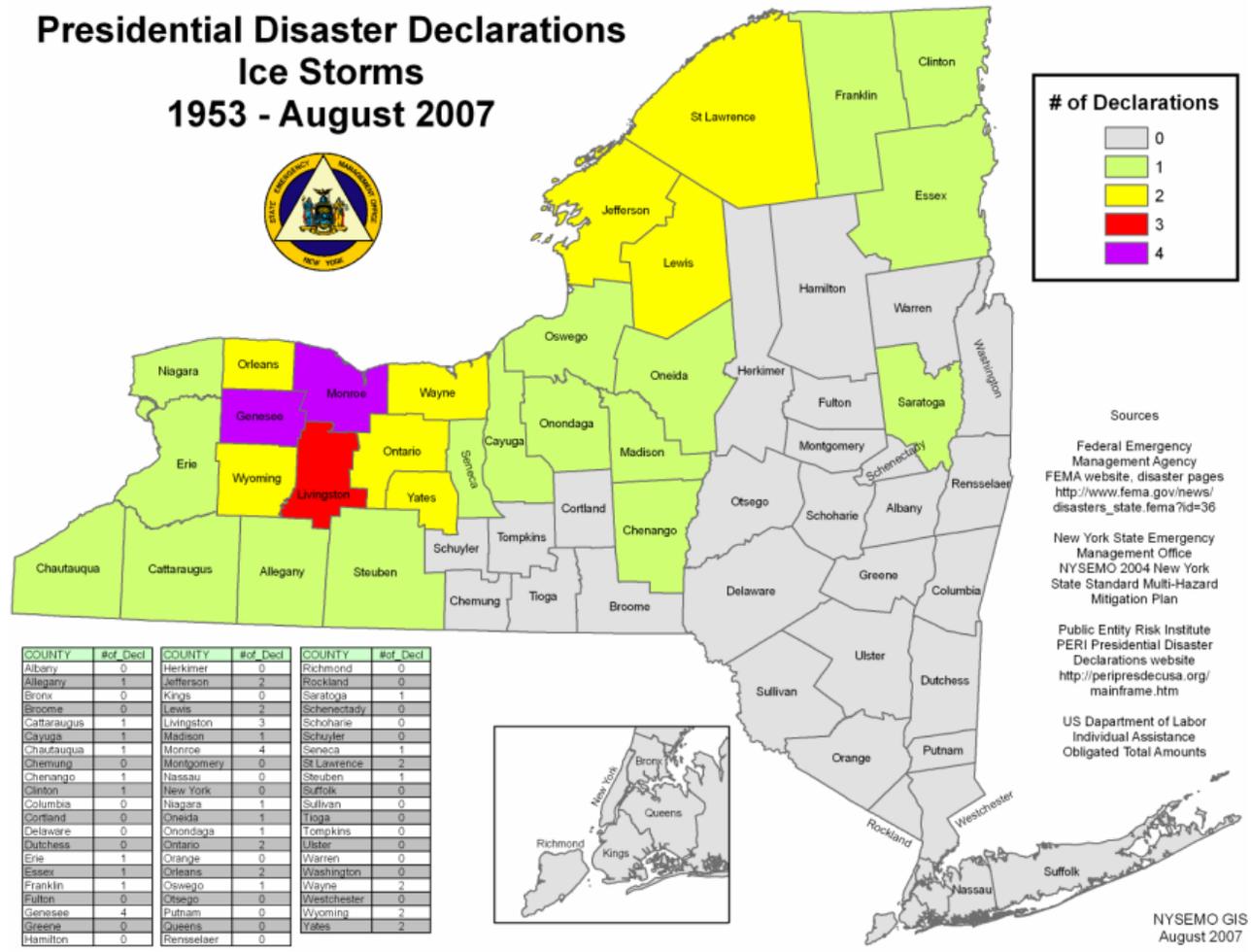
**PART I – NATURAL HAZARD PROFILES**

**SECTION 6.1: ICE STORMS**

**Subsection 6.1.A: Definition:** Freezing rain which accumulates in a substantial glaze layer of ice resulting in serious disruptions of normal transportation and possible downed power lines.

**Subsection 6.1.B: History:** There have been six reported ice storms in Genesee County from 1997 to 2006, in addition to other more minor ice storms that occur annually. These storms have also occurred periodically in the past. These storms can occur throughout the winter months and may cascade into problems including utility failure, extreme temperatures, transportation accidents, flooding, ice jams, water supply contamination, and structural damage. The impacts of these storms are felt county-wide.

The following map is excerpted from the *New York State Standard Multi-Hazard Mitigation Plan*. It shows the number of Presidential Disaster Declarations by county in New York State. This map indicates that between 1953 and 2007 Genesee County has had four federal Ice Storm disaster declarations. This means that Genesee County has had the greatest number of Ice Storm disaster declarations of any county in the state, with the exception of Monroe. Other more minor ice storms have occurred in the County than are indicated by this map. These events were addressed by local resources without calling in federal or state assistance.



**Source:** *New York State Standard Multi-Hazard Mitigation Plan*.

**Subsection 6.1.C: Impacts:** Ice storms have caused power outages; damage to automobiles, homes and other buildings; downed trees and wires; closings of schools and businesses; and general disruption to normal daily activities.

**Subsection 6.1.D: Damage:** Damage estimates for Genesee County were not available in the sources consulted.

**Subsection 6.1.E: Future Probability:** This hazard is considered a High Probability hazard. The lack of good records going back more than ten years makes it difficult to accurately calculate this hazard’s probability. Given the available data, which shows that 6 events have occurred over 8 years, the future probability of this hazard would be 75%. However, the actual percentage should probably be closer to 100%. This hazard can occur every year and will certainly happen in the future.

**Subsection 6.1.F: Research:** Ice storm data was obtained from the National Climatic Data Center (NCDC) beginning in 1955 and the *New York State Standard Multi-Hazard Mitigation Plan*. Other sources included archived materials at the Genesee County Historian’s Office. The first ice storm incident recorded in this report occurred on March 14, 1997.

**Major Ice Storms Affecting Genesee County from 1997 to 2005**

*\*Indicates information that appears again under another hazard.*

| Date      | Municipality   | Damage (\$)  | Injury/Fatality | Description   |
|-----------|----------------|--------------|-----------------|---|
| 3/14/1997 | Genesee County | Not Reported | Some Injuries   | Deepening low pressure over Missouri tracked northeast and brought a mix of ice and snow to the area. Several inches of the icy slush coated trees and power lines, the weight of which downed the trees and lines. Various school districts throughout the area cancelled classes because of the treacherous conditions. Countless automobile accidents, some with injuries, were blamed on the storm. Power outages were scattered across the region.*  |
| 3/21/1998 | Genesee County | Not Reported |                 | The storm began as a period of freezing rain and sleet Friday evening the 20th and changed over to snow early Saturday morning. The snow made roadways extremely slick and innumerable accidents resulted. The heavy ice and snow on power lines and trees resulted in scattered power outages throughout the area.*  |
| 1/15/1999 | Genesee County | Not Reported |                 | Low pressure moved to the south of the area and produced a general heavy snowfall across the region. The heavy, wet snow combined with freezing rain in Genesee County. The heavy snows again resulted in traffic tie-ups and school closings. Visibilities were reduced and roads became treacherous from the ice mix of snow and sleet. A general snowfall of six to nine inches fell across the entire area. This latest bout only added to the harsh winter conditions across the region. Several counties in the area were declared disaster areas by the State and Federal government.* |
| 2/14/2000 | Genesee County | Not Reported |                 | Low pressure moved across the Ohio Valley and Pennsylvania spreading a wintry mix of snow, sleet and freezing rain across the area. Snowfall amounts of four to eight inches in addition to 1/4 to 1/2 inch ice were common across the Niagara Frontier, Western Southern Tier and Western Finger Lakes Region.*  |
| 1/31/2002 | Genesee County | Not Reported |                 | A three to five inch snowfall overnight of the 30th-31st turned to freezing rain during the morning hours. Ice accumulations of one-half to three-quarters inch occurred. Hundreds of   |

|          |                |              |     |  |
|----------|----------------|--------------|-----|--|
|          |                |              |     | thousands were left without power as the heavy ice build-up downed trees and power lines. Some areas were without power for up to 72 hours. Winds picked up and gusted to 55 mph. Trees and tree limbs fell blocking roads and damaging homes and automobiles. Tree damage included large and small limb breakage and bark damage as well as the uprooting of trees. States of Emergency were declared across the Niagara Frontier counties.*  |
| 4/4/2003 | Genesee County | Not Reported | 0/1 | Low pressure over Illinois brought a mix of wintry weather to parts of the Genesee Valley, the Finger Lakes and the North Country. Across the Genesee Valley and the Finger Lakes, the precipitation fell mainly as freezing rain. Up to an inch of ice accumulation was measured. The heavy ice accumulation downed trees, limbs and power and telephone lines. Schools and businesses closed for several days. The falling trees and power poles produced a significant amount of damage to structures and automobiles.* |

**SECTION 6.2: FLOODS**

**Subsection 6.2.A: Definition:** Flooding is usually a natural, cyclic occurrence in existing water bodies. When a water body overflows its 'normal' banks, a potentially violent and/or destructive waterway can form. A flash flood is a sudden transformation of a small stream into a violent waterway after heavy rain and/or rapid snowmelt.

**Subsection 6.2.B: History:** After ice storms, floods are the most potentially destructive natural disaster affecting the County. Floods have caused widespread damage in the county throughout the twentieth century. Human injury/loss of life, property damage and destruction, crop and livestock losses, utility outages, and infrastructure damage have all occurred as a direct result of flooding. In Genesee County the typical flood is caused by a combination of heavy rains and ice/snow melt.

The flood hazard zones used in this report to assess the vulnerability of Critical Facilities and Community Assets to flooding (see Chapter 7) are based on FEMA’s Flood Insurance Rate Maps (FIRMS). The FIRMS depict zones of “100-year flood”, which are areas where a flood whose magnitude can be expected to be exceeded on the average of once every hundred years. A 100 year flood has a 1% chance of exceedence in any given year. However, floods of this magnitude can occur during any year, in consecutive years, and within any given time interval.

There are three main flood hazard areas in the county. The first area extends along the Tonawanda Creek watershed from the Wyoming County line north to the City of Batavia. This flood zone lies mostly within the Towns of Alexander and Batavia, but extends into the northwest corner of the Town of Bethany and the south central part of the City of Batavia. The flood zone is fairly restricted in the southern half of Alexander, but expands to encompass most of the northeastern quadrant of the town. It continues north into the Town and City of Batavia. This area is primarily open agricultural land, but development pressure is in danger of encroaching onto the floodplain in areas along Route 98, which roughly forms the western border of the floodplain.

The second main flood hazard area is in the northeastern corner of the county, in the Towns of Byron and Bergen. Here the Black Creek is the source of flooding in a band that stretches from the center of the Town of Byron eastwards through the Town of Bergen to the county line. This area is primarily open agricultural land.

The third main flood hazard area is along the county's northern border. Low-lying muckland in the towns of Alabama, Oakfield, Elba, and Byron is within the 100 year floodplain. A band of floodplain stretches along the Genesee-Orleans county line from northwest corner of the Town of Alabama eastward to the northwest corner of the Town of Byron. This area is primarily open agricultural land.

In addition to these three main areas of flood hazard zones, numerous smaller flood hazard "pockets" are scattered about the county, especially in the towns of Darien, Pembroke, and Batavia. Other flood hazard pockets are located along the Black Creek in Bethany, the Oatka Creek in Pavilion, and the White Creek in Le Roy.

Please refer to Map 12: Flood Zone Areas for a graphic depiction of the county's flood hazard areas.

The Oatka and Tonawanda Creeks are the two most dangerous and historically the most destructive sources of flooding in Genesee County. The following sections provide narrative overviews of major past flooding events along these two streams. These narratives were originally prepared for the *Genesee and Wyoming Counties Joint Flood Mitigation Plan* and were revised for inclusion in this Plan.

### **The Oatka Creek Watershed – Brief History of Flooding**

The Oatka Creek Watershed has a history of annual flooding, usually occurring in late winter and during the spring. Severe flooding during the spring season is often the result of heavy rains.

In addition to climate conditions, geographic factors of the watershed create interconnected weather patterns along the Oatka Creek. Flooding frequently begins where the Creek flows through Warsaw in Wyoming County, which lies on lowland especially susceptible to flooding due to runoff waters from the nearby East Hills. As the Creek continues north and then east through Genesee County, there is potential for flooding along its banks in the Towns of Pavilion and Le Roy.

The most severe recorded Oatka Creek floods have occurred in July 1902, throughout the spring of 1916, June 1928, March 1942, March 1955, March 1973, February 1984, and July 1998.

Newspapers reported the flood of July 1902 in biblical proportions, alluding to the story of Noah. Damage was extreme; "nearly every bridge... all along the Oatka and its tributaries was either carried away or damaged to such an extent that they are unsafe." (*The Western New-Yorker, July 11, 1902*). The flood was caused by the combination of heavy rain with the bursting of three local reservoirs located north of Warsaw. Flooding may have been worsened by the loss of vegetation on the surrounding hills due to salt mining activities during the previous decades.

Two instances of especially severe flooding occurred along the Oatka Creek during the spring of 1916. The first instance occurred in April of 1916. Conditions in Warsaw were especially extreme because of a threefold combination of heavy rain, the Buffalo Street bridge acting as an inadvertent dam, and the improper drainage of rainwater into lower areas of Warsaw from nearby East Hill. Warsaw's water ran downstream, creating a severe region-wide flood that affected areas along the Creek in Genesee County.

The second severe flood in 1916 occurred in May. A brief but intense rainfall was cited as the worst that Pavilion had ever recorded, and was severe enough to close all BR&P trains into Le Roy (*The Western New Yorker, May 18, 1916*). Severe floods resulted in water build-ups as much as eight feet deep. The intensity of the flood was due to heavy rainfall in Covington coupled with East Hill run-off water of heavy rains in Warsaw.

In 1966, the Buffalo District's ACE initiated a public project to enlarge the Oatka Creek to maximize flood protection. The project was completed in 1968. A 1972 estimate by the ACE reported that the project had prevented an estimated \$1 million in damages since its completion. (*The Batavia Daily News, July 11, 1972*)

The flood season of 1972 was strongly impacted by Hurricane Agnes and witnessed one of the worst incidents of Oatka Creek flooding. As weather conditions worsened due to heavy rainfall, the Mt. Morris Dam (southwest of Warsaw) threatened to burst. As a precaution, residents of low-lying areas along the Genesee River between Mt. Morris and as far north as Rochester were evacuated. Fortunately, water was systematically released from the dam, and calamity was avoided (*The Western New-Yorker, June 27, 1972*). However, more than twenty bridges within the Oatka watershed were washed away, and the area between Warsaw and Wyoming were especially flooded. East Hill run-off water resulted in excessive flooding in Warsaw. Among groups that assisted with repercussions of the rain included the Civil Defense and the National Guard watching water levels around the area, the Attica Correctional Institute gathering 200 volunteers to assist with cleanup, and the Red Cross assisted individuals with personal losses sustained from the flood.

In 1998, heavy rains caused severe floods in January and again in mid-July. January's floods were complicated by an ice storm. Conditions in July were so severe that a state of emergency was declared for five days, and roads were closed throughout the watershed due to flooding.

### **The Tonawanda Creek Watershed – Brief History of Flooding**

The Tonawanda Watershed has a history of annual flooding where the Tonawanda Creek flows through parts of Genesee and Wyoming Counties. Floods can be expected annually between late winter and throughout the spring. Severe flooding during this season is commonly the result of combinations of heavy rains and melting snow and ice.

In addition to climate conditions, geographic aspects of the watershed create highly interconnected weather patterns along the Creek. Although the headwaters of the Tonawanda are in the hills of southern Wyoming County, actual flooding often begins at the point where the Tonawanda Creek flows through the Village of Attica because this is where the channel gradient starts to flatten out. As the Creek continues north and west through Genesee County, there is potential for flooding along its banks in the towns of Alexander and Batavia. Thus, flood conditions in Attica act as good predictors of later conditions in downstream areas. Generally, runoff water from Attica can be expected to reach Batavia within 12 to 24 hours.

Lowlands are the most easily flooded areas along the Tonawanda. These include the lowlands between Attica and Alexander and the lowlands between Batavia and Alexander.

Major floods along the Tonawanda Creek have occurred in March 1865, March and July 1902, March 1904, March 1916, June 1928, January 1929, April 1940, March 1942, March 1956, January 1957, January 1959, March 1960, June 1972, September 1977, March 1979, June 1989, and January and July 1998.

The most severe and destructive Tonawanda Creek floods occurred in March and July 1902, throughout the spring of 1916, in January 1929, the defining flood of March 1942 that initiated significant public interest in flood prevention, in June 1989, and in January and July of 1998.

An ice jam at the Chestnut Street Bridge in March 1902 was cause of the first major twentieth century flood in the region. In Batavia, West and South Main Streets were completely submerged and were passable only by boat. As water receded, piles of ice left behind on the street were recorded at up to 16 feet tall (*Batavia Daily News, March 1, 1902*). Supports for the Walnut Street and Chestnut Street Bridges in Batavia were carried away, and the bridges almost collapsed.

The second major flood of the year occurred in July 1902 when severe flooding occurred in Attica. A dam along the Crow Creek failed and the impounded water added to the flood's severity. A blacksmith's shop was wrecked and several sheds were moved off their foundations. Homes on Water and Exchange Streets had several feet of floodwater in them. Bridges along the creek were demolished and the railroad beds were damaged, forcing the suspension of train traffic for several days. Crops in flooding fields were a total loss.

In the spring of 1916, the Tonawanda Creek caused five significant floods within four months. The flood of March 1916, recorded as Batavia's greatest flood up to the time, was caused by the combination of rain with melting snow. Late April brought the second major flood of the Tonawanda in 1916, made more extreme in Alexander and Batavia by the effects of floods upstream. Less than a month later, in mid-May 1916, the third flood of the year would prove the most severe. The New York Central Railroad running through Alexander was cut off, and over two feet of water was reported in Attica. A fourth flood occurred in early June, and early July would be the fifth significant flood of the season. The intense floods of 1916 would lead to the first public discussion of government intervention for flood protection. Although it was never implemented, a "gravity water system" was proposed in March 1918.

The next case of severe flooding occurred at the end of January 1929. Flooding in Attica acted as the precipitator of more severe situations in Alexander and Batavia. Greater than the flood of 1902, the rise of water in Batavia became the Town's new high record. The intensity of the flood inspired more talks about the proposed gravity water system and other calls for government relief that had lain dormant since 1918.

The great flood of March 1942 was the defining flood event for the region. Attica was cited as enduring "normal flooding," while effects in Batavia were extreme. (*Batavia Daily News, March 19, 1942*) The additional complication of the Little Tonawanda Creek overflow would lead to a new record flood level for the City of Batavia. Many residents in the southwestern part of the City of Batavia were stranded in their homes for more than three days. Sewers ran at capacity, flooding over a thousand residential basements and incapacitating many houses' heating and fuel sources. The American Red Cross was called in to help deal with repercussions of the flood. In addition to giving temporary aid to flood victims, the American Red Cross found the need to create a permanent agency to deal with the ongoing flood problems of the Tonawanda Creek. Stunned to see a flood of such magnitude and inconvenience, residents prompted public discussion that led to mandates for national government aid for their region. Although conditions were not severe enough to gain national attention, sufficient constituent demand continued, turning flood relief and prevention activities into local government topics with priority status.

In 1955 an official flood prevention plan was enacted by the Buffalo District's ACE; areas of the Tonawanda Creek within the city limits of Batavia were widened and a large flood control wall was constructed. The plan estimated the city would be protected from 87 to 88 percent of annual flood damages (*Batavia Daily News, October 9, 1953*). The flood season of 1956 acted as a test of the project's utility; residents of Batavia deemed the project a success and called for further undertakings. However, the alterations in Batavia increased the intensity of flooding in places down-stream from the city, and western municipalities such as Pembroke were upset with the project.

Throughout the 1950s, 1960s, and 1970s, the ACE developed various studies and proposals for further flood prevention plans. Some studies focused on the area between Bushville and Batavia, some focused on the area between Alexander and Batavia, and other plans called for work on the western part of the City of Batavia. Conflicting ideas and ongoing disagreements about how to obtain funding left flood mitigation projects along the Creek neglected during this period.

The next major instance of flooding along the Tonawanda occurred in late June 1989. A state of emergency was declared in Genesee County after enduring several flash floods. Several bridges were destroyed, including two in Alexander. Damages were severe enough that Governor Mario Cuomo requested federal emergency loans for farmers in both Genesee and Wyoming Counties.

The most recent major flood season of the Tonawanda Creek occurred in 1998. In January, Tonawanda Creek flooding affected areas within its watershed in large parts of both Genesee County and Wyoming County. Regions of Wyoming County were declared eligible for federal aid in July 1998 following more severe flooding.

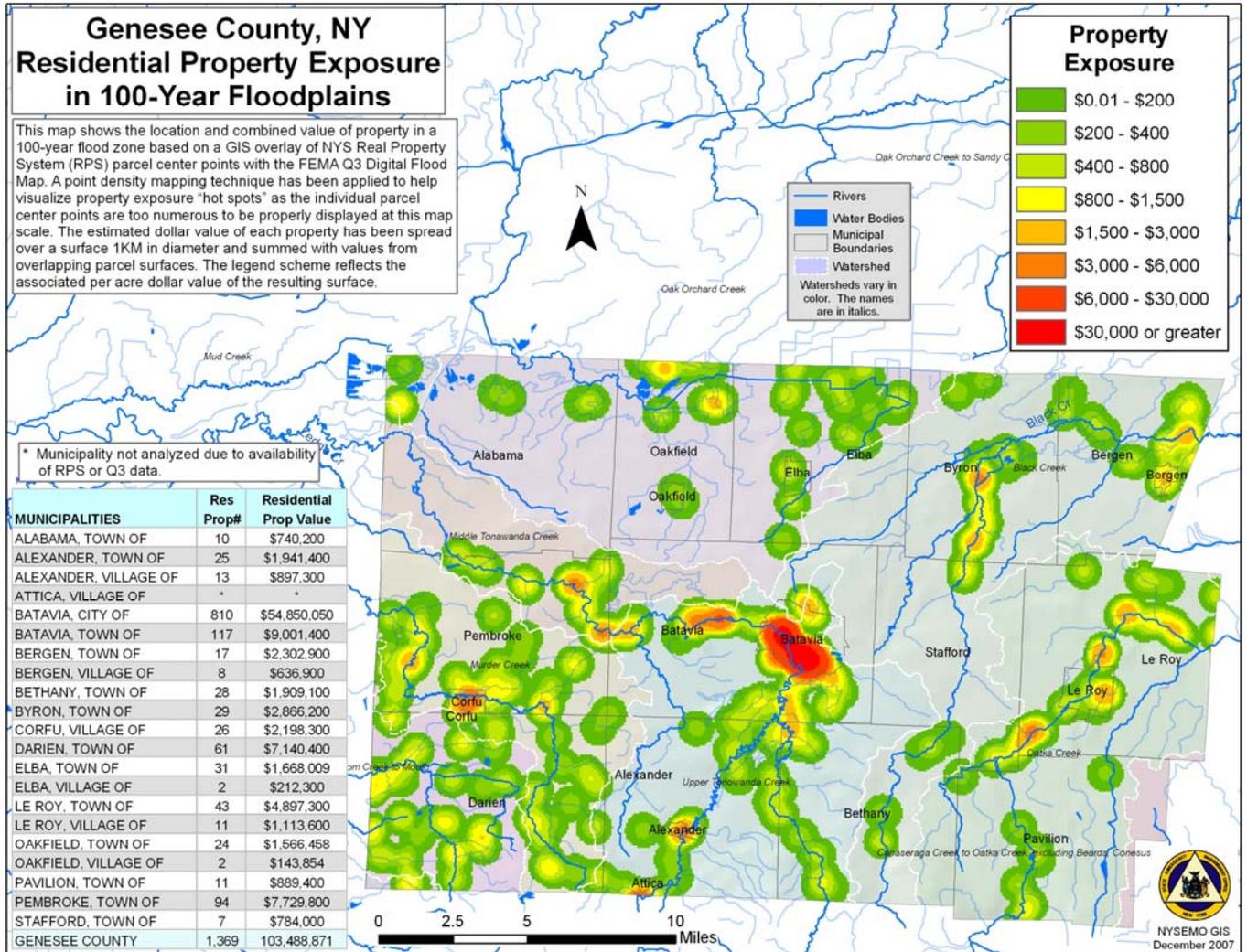
The annual flooding of the Tonawanda continues. As recently as March 21, 2003, flooding of the Creek forced several road closings in Alexander. The *Batavia Daily News* alluded to the inevitability of the flooding of the Tonawanda by dismissing its gravity as merely a “rite of spring, up there with geese flying south and robins showing up in the yard.” (*Batavia Daily News*, March 22, 2003)

The following list provides information on the past twenty years of flood disaster declarations in the county.

**History of Flood Disaster Declarations in Genesee County:**

- January 24, 1999 – Flooding. Limited state of emergency. Ice jam flooding and flash flood potential.
- July, 1998 – Flooding. FEMA 1233 DR NY
  - Monies received: Village of Attica \$14,068
- January 19, 1996 – Flood. FEMA 1095 DR NY - Road washouts – Alexander, Bethany, Pembroke, Stafford, City of Batavia. Assistance denied.
- June 22, 1989 – Severe Flash Flooding. Major rainstorm, inundated portions of highway system destroying and damaging roads and bridges.
  - Cost of repair caused by flooding: Genesee County \$1,142,100; Town of Oakfield \$10,000; Town of Darien \$6,000; Town of Stafford \$20,000; Town of Alexander \$27,500; Town of Bethany \$122,500; Town of Pavilion \$115,000.
- February 23-29, 1985 – Flooding. FEMA 734 DR-NY - Flood related emergency resulting from heavy rains combined with melting snow due to unseasonably warm weather.
  - Monies Received: City Batavia: \$50,000 flood damage, \$20,000 repair sewer line collapse. Town Batavia: damage minimal.

The map on the following page is excerpted from the *New York State Standard Multi-Hazard Mitigation Plan*. It displays the geographic distribution and value of residential real property stock within the 100-year floodplain for Genesee County. This map, which includes a summary of residential property values by municipality, is the result of a GIS analysis, conducted by NYSEMO, of real property parcel center points falling within the 100 year flood zone. The data listed on this map for individual municipalities within the County results from “overlaying” the Q3 floodplain maps (where they exist) with the data found in the RPS data base. The map indicates that the greatest potential damage to residential properties from flooding would be expected in densely populated areas such as the City of Batavia and villages including Attica, Alexander, and Corfu.



Source: New York State Standard Multi-Hazard Mitigation Plan.

**Subsection 6.2.C: Impacts:** The extent of flood damage depends on the topography of the flooded area, the depth and duration of flooding, the velocity of flow, the rate of rise in water surface elevation, and development of the flood plain. Deep water flowing at a high velocity and carrying floating debris would create conditions hazardous to people and vehicles which attempt to cross the flood plain. Generally, water 3 or more feet deep which flows at a velocity of 3 or more feet per second could easily sweep an adult off his feet and create definite danger of injury or drowning. Rapidly rising and swiftly flowing floodwater may trap persons in homes that are ultimately destroyed or in vehicles that are ultimately submerged or float away. Since waterlines can be ruptured by debris or the force of the floodwaters, there is the chance that water supply systems might be compromised and contaminated. Damaged sanitary sewer lines and water treatment plants could result in pollution by floodwaters and could create health hazards. Isolation of areas by floodwaters could create hazards in terms of medical fire, or law enforcement emergencies.

Historically, floods in Genesee County have caused human injury/loss of life, property damage and destruction, crop and livestock losses, infrastructure damage, utility outages, and general disruption to routine activities.

**Subsection 6.2.D: Damage:** Exact figures are not available, but estimated damages caused directly by flooding range in the several millions of dollars. This does not include many of the additional economic costs such as those associated with closed businesses, reduced operations, employee absence, and limited or delayed agricultural operations.

**Subsection 6.2.E: Future Probability:** 40 events/106 years = 38%. While this percentage indicates this hazard should be considered a Moderate Probability, the scale of the damage caused by past flooding events indicates that this hazard should be treated as if it were a High Probability event.

**Subsection 6.2.F: Research:** Flood data was obtained from the National Climatic Data Center (NCDC) beginning in 1955 and the *New York State Standard Multi-Hazard Mitigation Plan*. Other sources included archived materials at the Genesee County Historian’s Office, the Genesee County Hazard Analysis Report, and the Genesee County ARC Disaster Response Plan.

**Major Floods Affecting Genesee County from 1900 to 2006**

*\*Indicates information that appears again under another hazard.*

| Date           | Municipality   | Damage (\$)  | Injury/Fatality | Description  |
|----------------|----------------|--------------|-----------------|--|
| July 1902      | Attica         | Not Reported | Not Reported    | Severe flooding in Attica caused widespread damage, including flooded out homes and businesses and damaged infrastructure.   |
| March 1904     | Genesee County | Not Reported | Not Reported    | Major flooding along the Tonawanda Creek.  |
| March 1916     | Genesee County | Not Reported | Not Reported    | Major flooding along the Tonawanda & Oatka Creeks.   |
| June 1928      | Genesee County | Not Reported | Not Reported    | Major flooding along the Tonawanda & Oatka Creeks.   |
| January 1929   | Genesee County | Not Reported | Not Reported    | Major flooding along the Tonawanda Creek.  |
| April 1940     | Genesee County | Not Reported | Not Reported    | Major flooding along the Tonawanda Creek.  |
| March 1942     | Genesee County | Not Reported | Not Reported    | Major flooding along the Tonawanda Creek. This flood caused significant damage in Batavia and stimulated public interest in flood prevention projects. Flooding also occurred along the Oatka Creek. |
| March 1955     | Genesee County | Not Reported | Not Reported    | Major flooding along the Oatka Creek.  |
| March 1956     | Genesee County | Not Reported | Not Reported    | Major flooding along the Tonawanda Creek.  |
| January 1957   | Genesee County | Not Reported | Not Reported    | Major flooding along the Tonawanda Creek.  |
| January 1959   | Genesee County | Not Reported | Not Reported    | Major flooding along the Tonawanda Creek.  |
| March 1960     | Genesee County | Not Reported | Not Reported    | Major flooding along the Tonawanda Creek.  |
| June 1972      | Genesee County | Not Reported | Not Reported    | Major flooding along the Tonawanda Creek.  |
| March 1973     | Genesee County | Not Reported | Not Reported    | Major flooding along the Oatka Creek.  |
| September 1977 | Genesee County | Not Reported | Not Reported    | Major flooding along the Tonawanda Creek.  |
| March 1979     | Genesee County | Not Reported | Not Reported    | Major flooding along the Tonawanda Creek.  |
| February 1984  | Genesee County | Not Reported | Not Reported    | Major flooding along the Oatka Creek.  |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|               |                |              |              |  |
|---------------|----------------|--------------|--------------|--|
| February 1985 | Genesee County | Not Reported | Not Reported | Major flooding along the Tonawanda Creek.  |
| June 1989     | Genesee County | 1,142,100    | Not Reported | Severe flash flooding caused widespread infrastructure damage.   |
| 8/2/1994      | Genesee County | 50,000       | 0/0          | Flash Flood reported*  |
| 1/19/1996     | Genesee County | 20,000       | 0/0          | Rapid snowmelt of about a foot of snow combined with heavy rainfall to produce significant flooding.*  |
| 4/13/1996     | Genesee County | 25,000       | 0/0          | A general one to two inch rainfall combined with lingering snowmelt from higher elevations to result in considerable lowland flooding. Most major creeks and rivers rose to bankful. The Genesee River was above flood stage for five hours. Oatka Creek was above flood stage for 31 hours.*  |
| 6/9/1996      | Le Roy         | 15,000       | 0/0          | A thunderstorm moving across the eastern portions of the county produced 3/4" hail, damaging winds, and torrential rains. The winds downed trees and power lines. The storm dropped over 2.5" of rain in about an hour. Minor urban flooding occurred.*  |
| 6/20/1996     | Batavia        | 40,000       |              | Strong thunderstorms crossed the area during the early afternoon hours dropping rainfall amounts of one to two inches. The rain fell on already saturated ground producing flash flooding. Roads were closed because of the flood waters. Several basements were damaged by flooding.*   |
| 7/18/1997     | Genesee County | 36,000       |              | Thunderstorms developed ahead of a strong cold front and brought high winds and large hail to the region. The high winds downed trees and power lines and caused minor structural damage. The heavy rains that accompanied the storms resulted in minor urban flooding.*   |
| 1/8/1998      | Le Roy         | 1,000        |              | Western and central New York was drenched with unprecedented January rainfalls over a 36 hour period. All of the region received between two and four inches of rain which fell on bare, saturated ground. The rapid runoff produced urban flooding as well as flooding of many small streams and creeks. Numerous roads throughout the area were closed due to flood waters. Local firefighting and public works departments were called out to pump water from flooded basements. The floodwaters overwhelmed several area wastewater treatment plants and water emergencies were declared.* |
| 1/8/1998      | Genesee County | 105,000      |              | Two and a half to three inches of rain fell in a two day period. The rain fell onto bare, already saturated ground. The rapid runoff caused Buffalo area creeks and streams to crest quickly. Levels on Buffalo, Cazenovia, Ellicott and Cayuga creeks crested about a foot or two above flood stage, but not significant damage was reported. Tonawanda creek crested over four feet above flood stage, the highest since 1985. One hundred homes had to be evacuated in Batavia.*  |
| 1/8/1998      | Le Roy         | 10,000       |              | Western and central New York was drenched with unprecedented January rainfalls over a 36 hour period. All of the region received between two and four inches of rain which fell on bare, saturated ground. The rapid runoff produced urban flooding as well as flooding of many small streams and creeks. Numerous roads throughout the area were closed due to flood waters. Local firefighting and   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|           |                |              |              |  |
|-----------|----------------|--------------|--------------|--|
|           |                |              |              | public works departments were called out to pump water from flooded basements. The floodwaters overwhelmed several area wastewater treatment plants and water emergencies were declared. States of Emergency were also declared in various locations within the area.*   |
| 6/2/1998  | Batavia        | 15,000       |              | Severe thunderstorms swept across the entire region during the late afternoon and evening hours. The storms produced hailstones up to 1.5". Although the stones were not excessively large, what was unusual for the area was the number and coverage of the reported hail. In addition to the large amount of hail, the thunderstorms produced damaging winds which downed trees and power lines and poles.*  |
| 6/26/1998 | Batavia        | Not Reported |              | Severe thunderstorms crossed the area during the early morning hours. The thunderstorms produced large hail and damaging winds which downed trees and power lines. The damage from thunderstorm winds paled in comparison to the damage resulting from the flash floods the thunderstorms produced. Erie, Genesee and Cattaraugus counties were declared state and federal disaster areas.*  |
| 7/8/1998  | Genesee County | Not Reported | 2 Fatalities | Localized thunderstorms early in the morning of the 8th dropped three to five inches of rain across parts of Erie, Genesee, and Livingston counties. Over five inches fell in just a few hours over much of Genesee county. This resulted in rare, widespread devastating flash flooding. Many small streams and creeks became raging torrents and the upper reaches of the Tonawanda Creek rose drastically--faster than at any time in at least 30 years according to locals--and flooded out much of the Village of Attica. Two deaths resulted from the flooding. A 28 year-old female and a 17 year-old male drowned while attempting to rescue animals from the basement of an animal clinic. More thunderstorms during the afternoon aggravated the flooding on the Tonawanda creek which rose well above flood stage downstream to Batavia the following day. The crest dissipated further downstream with limited flooding reported near Newstead. Oatka creek in Garbutt rose above flood stage the afternoon of the 9th and remained so through the afternoon of the 10th. A State of Emergency was declared for all of Genesee County. Nearly 400 buildings were damaged in Genesee county and damage to crop land was severe. The extensive flooding closed numerous roads throughout the multi-county area. In Attica alone, nearly one hundred homes and businesses were evacuated. In the aftermath, Genesee, Genesee, Livingston and Monroe counties were declared Federal Disaster Areas.* |
| 1/23/1999 | Genesee County | Not Reported |              | Warm temperatures melted the snow pack from record snowfall in late December and early January. Nearly two feet of ripe snow pack dissolved to just a few inches remaining. The runoff caused flooding in poor drainage and low lying regions across the area with roads closed in some locations for a couple of days. Some of the hardest hit areas included Batavia and Corfu in Genesee County. The Tonawanda rose above flood stage at Batavia at 11:00 AM on the 24th and remained so for 24 hours. The creek  |

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|           |                |              |     |  |
|-----------|----------------|--------------|-----|--|
|           |                |              |     | did not crest in Rapids until the 27th, but was above flood stage from 2:00 PM on the 26th to 9:00 AM on the 28th.*  |
| 7/16/2000 | Byron          | 30,000       |     | Heavy rains from thunderstorms dropped over two inches in a couple of hours. The flash flooding that resulted inundated roads, washing away a portion of the shoulder. A bean field was washed away.*  |
| 2/1/2002  | Genesee County | 38,000       |     | A large scale storm system crossed the region on January 31st-February 1st bringing precipitation amounts of two to three inches to the region. The heavy rains on bare, saturated ground caused area creeks to rise with several exceeding flood stage. Tonawanda Creek at Batavia exceeded its 9 foot flood stage at 6 am on the 2nd and crested at 10.1 feet at 2pm.*   |
| 5/22/2004 | Genesee County | Not Reported |     | Thunderstorms that developed along a nearly stationary front produced hail up to 1.25" in diameter and wind gusts measured to 61 mph. The slow moving thunderstorms also produced torrential rains that resulted in road closures and basement flooding.*  |
| 9/9/2004  | Genesee County | Not Reported | 0/1 | Western and central New York were inundated by drenching rains as the remnants of hurricane Frances drifted north across the region on Thursday September 9th. Area wide rainfall totaled 3 to 5 inches with the bulk of it falling in a 6 to 9 hour period from very late Wednesday to midday Thursday. Several creeks in the Buffalo and Rochester areas recorded their greatest flows and highest gage levels ever in a non-winter/spring season. Oatka Creek at Garbutt was above the 6 foot flood stage from 6PM Thursday the 9th to 2AM Friday the 10th, cresting at 6.18 feet. Black Creek at Churchville was above the 6 foot flood stage from 1AM Friday the 10th to 11PM Saturday the 11th, cresting at 7.85 feet. Tonawanda Creek at Batavia was above the 9 foot flood stage from 5AM to 9PM Friday the 10th, cresting at 10.12 feet. The heaviest rain was in a swath from Chautauqua county northeast across Erie and Niagara counties to Monroe and western Wayne counties. In Cowlesville, Genesee county, a three-year-old boy drowned when he was swept away by flood waters while playing near a stream. His body was recovered further downstream along the banks of Cayuga Creek in Alden.* |
| 4/2/2005  | Genesee County | Not Reported | 1/0 | Deep low pressure over Pennsylvania brought copious amounts of precipitation to western and central New York...falling mainly as rain across much of the area. Rainfalls totals generally ranged from two to three inches. The rain, combined with snowmelt, produced flooding. Six area creeks and rivers reached flood stage. Oatka Creek at Garbutt was above its 6' flood stage for 48 hours and crested at 7.03 feet. Black Creek at Churchville was above its 6' flood stage for 51 hours and crested at 7.76 feet. Tonawanda Creek at Batavia was above its 8' flood stage for 5 hours and crested at 9.10 feet and at Rapids was above its 12' flood stage for 48 hours and crested at 13.78 feet.*  |
| 6/13/2005 | Le Roy         | Not Reported |     | Low pressure, the remains of Hurricane Arlene, moved northeast across the Great Lakes. The bands of showers and thunderstorms produced damage across parts of the  |

|           |                |              |     |  |
|-----------|----------------|--------------|-----|--|
|           |                |              |     | Niagara Frontier and Finger Lakes. The strong winds downed trees and limbs in eastern Genesee County. Power outages were scattered throughout the area.*   |
| 7/14/2005 | Batavia        | Not Reported |     | Thunderstorms developed in an unseasonably hot and humid air mass during the late afternoon and early evening hours. The storms downed trees and power lines in the Batavia area.*   |
| 2/17/2006 | Genesee County | Not Reported | 0/1 | Low pressure deepened as it tracked northeast into southern Ontario. The strong winds associated with the low downed trees and power lines throughout western New York and the north country. Damage from falling trees to buildings and automobiles was extensive.* |

**SECTION 6.3: EARTHQUAKES**

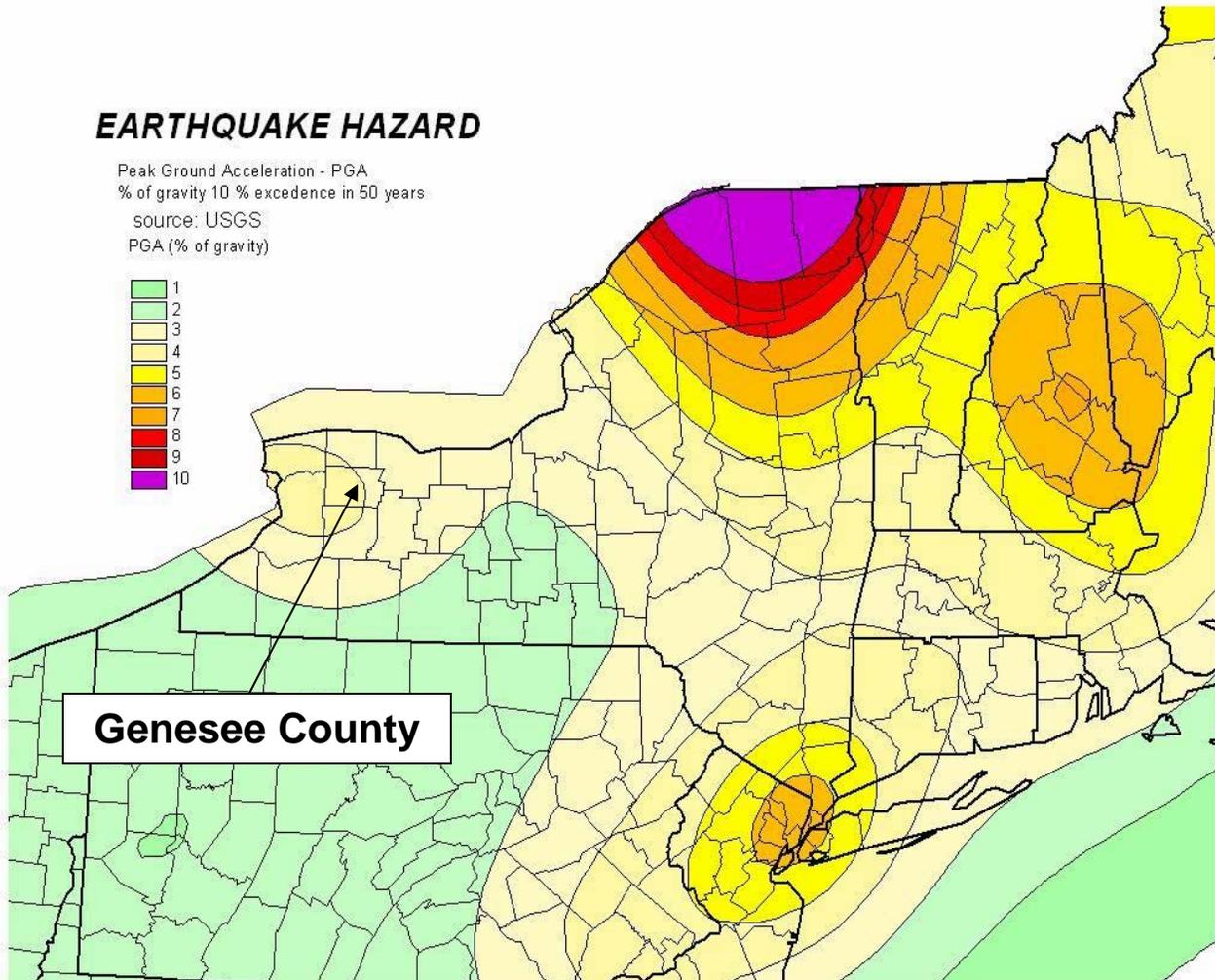
**Subsection 6.3.A: Definition:** A sudden motion of the ground caused by release of subterranean strain energy, due to plate tectonics, resulting in surface faulting (ground rupture), ground shaking, or ground failure (collapse).

**Subsection 6.3.B: History:** The earliest recorded earthquake in Genesee County occurred in about 1838. This quake shook the Batavia area and caused much consternation among the populace, but caused no damage other than a few broken dishes. Numerous minor earthquakes have struck the county since then, but none of these minor quakes have caused significant damage. Earthquakes tend to happen every few years and are usually noticed by local inhabitants. However, at times more severe earthquakes have occurred. The most destructive earthquake to strike the County occurred on August 12, 1929 and was centered in the Attica area. This quake measured either 5.8 or 5.2 on the Richter Scale (depending on different sources) and caused widespread if moderate damage including collapsed chimneys, bulged walls, cracked plaster, and broken windows.

The county is affected by active faults in Quebec, Canada and the New England area. Several active faults run through and nearby the county as well. Local faults include the Clarendon-Linden, Retsof, Le Roy, Attica, and Folsomdale faults, as well as several other unnamed faults. Other faults may exist in the area, but much research still needs to be done in order to determine exactly where they are or what threats they pose to the region.

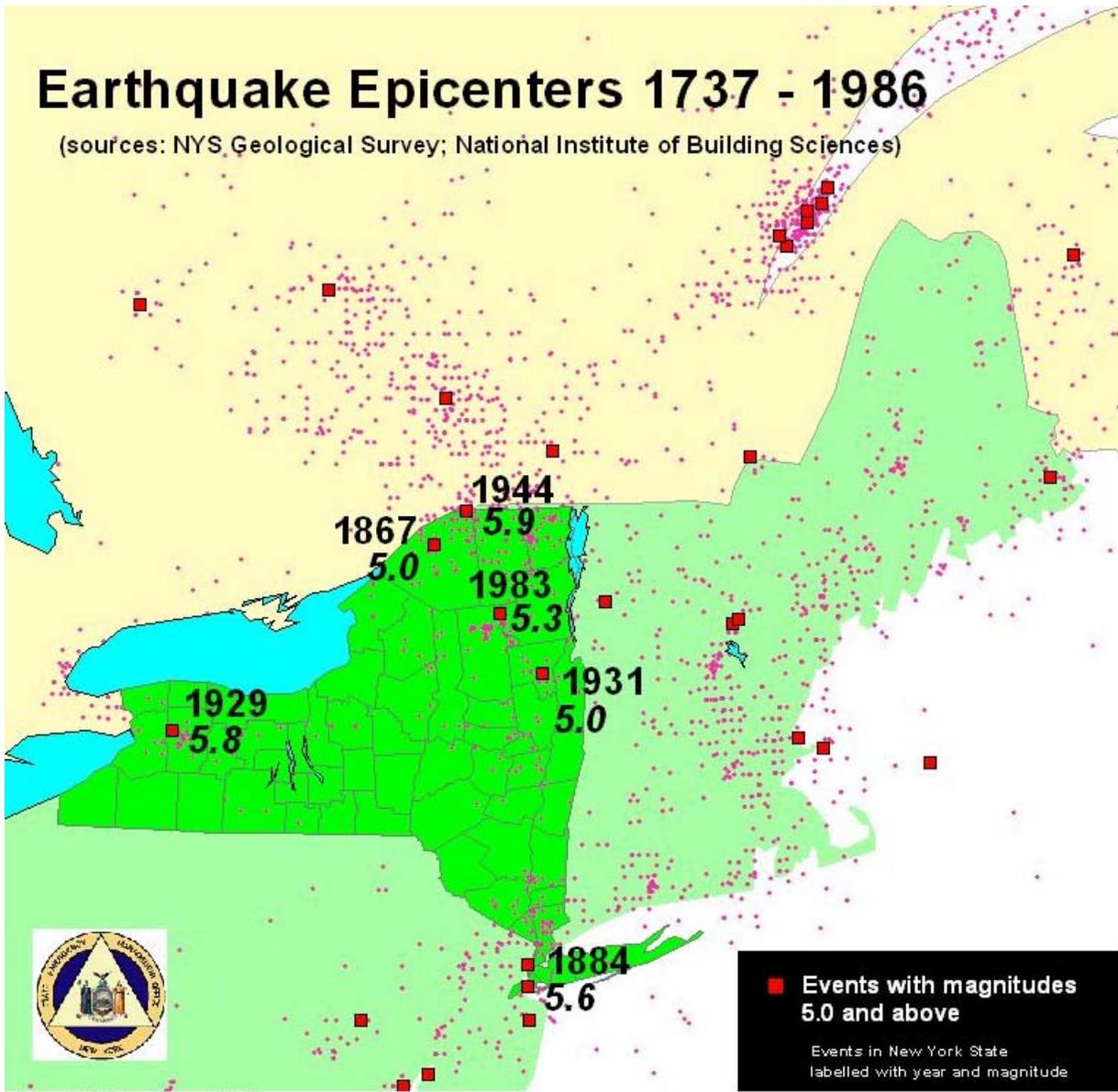
The map on the following page depicts New York State’s vulnerability to earthquakes. This map, from the U.S. Geological Survey, shows the Peak Ground Acceleration (PGA) values with a 10% chance of being exceeded over any given 50 year period. Peak Ground Acceleration is a measure of the strength of ground movements. This map shows the geographic area affected (all colored areas on the map), the probability of an earthquake of each given level of severity (10% chance in 50 years), and the severity (the PGA is indicated by color). Areas with the least earthquake risk are shown in green and areas with the greatest risk are shown in purple.

As the map indicates, the central and western portions of Genesee County have a PGA of 4% of gravity (light yellow color) for earthquakes with a 10% chance of occurring within 50 years. The eastern portion of the county has a PGA of 3% of gravity (buff color) for earthquakes with a 10% chance of occurring within 50 years.



Source: FEMA/NYSEMO All-Hazard Mitigation Plan Development Toolkit.

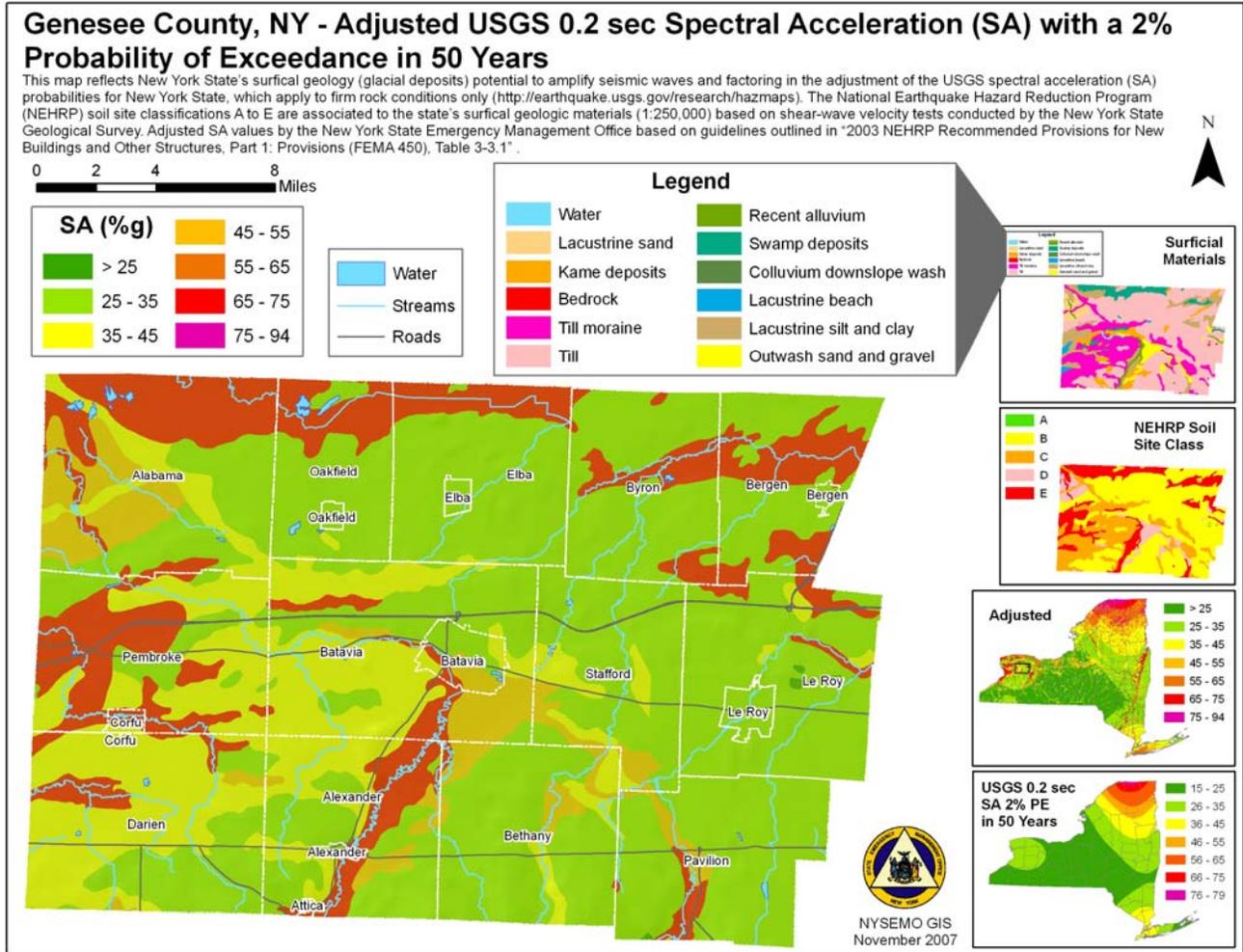
The map on the next page presents historical earthquake epicenters spatially across the northeastern United States and Canada, illustrating and indicating, through areas of historical earthquake groupings, areas with a generally higher incidence and magnitude of earthquakes. Historical earthquake occurrence as presented on this map indicates that there are three areas of the state that have a higher seismic risk: northeast, southeast, and far western areas. A cluster of epicenters is readily apparent in Wyoming and Erie Counties; the 1929 Attica event (magnitude 5.8) is noted as one of the most powerful recorded earthquakes in the New York State's history. The epicenter of this event was located in the Town of Alexander in Genesee County. This map was prepared by NYSEMO using data from the NYS Geological Survey and the National Institute of Building Sciences.



Source: FEMA/NYSEMO All-Hazard Mitigation Plan Development Toolkit.

Soil conditions exert a profound influence over the impact of seismic waves generated by earthquakes. The map on the following page shows differing soil conditions in various areas throughout the County. It indicates that several areas throughout the County, including the mucklands in the north, land along the Tonawanda Creek, land along Black Creek, and much of the Town of Pembroke have a greater chance of seeing major damage caused by earthquakes than other parts of the County.

Seismic waves propagate out from the earthquake epicenter and travel outward through the bedrock up into the soil layers. As the waves move into the soils, the speed or velocity of the waves is affected by how stiff or soft the soil is. Generally, in a stiff or “hard” soil, the wave will travel at a higher velocity. In the case of “soft” soils, the wave will slow, traveling at lower velocities. When the wave is slowed, the seismic energy is modified, resulting into a wave with greater amplitude. This amplification results in greater earthquake damage.



Source: New York State Standard Multi-Hazard Mitigation Plan.

The following table is excerpted from the *New York State Standard Multi-hazard Mitigation Plan*. It provides detailed information on the potential financial impacts of earthquakes to Genesee County. This data indicates that the County is at risk for an average of \$166,000.00 per year in losses due to earthquakes.

| HAZUS MH Earthquake Annualized Loss Estimation and Ranking Results                 |                               |                                    |                             |   |   |  |               |                     |                         |                                    |
|--|-------------------------------|------------------------------------|-----------------------------|---|---|--|---------------|---------------------|-------------------------|------------------------------------|
| (Source: <i>New York State Standard Multi-Hazard Mitigation Plan</i> , Table 3-52) |                               |                                    |                             |   |   |  |               |                     |                         |                                    |
| County   | Total Exposure<br>[x \$1,000] | Annualized Capital<br>Stock Losses | Annualized Income<br>Losses | Annualized Total<br>Losses<br>[x \$1,000] | Annualized Loss<br>Ratio [in dollars per<br>\$1 million of<br>exposure] | Annualized Loss per<br>Capita [in Dollars] | Exposure Rank | Exposure Ratio Rank | Annualized Loss<br>Rank | Annualized Loss per<br>Capita Rank |
| Genesee  | 3,644,533                     | 146                                | 20                          | 166                                       | 46  | 2.75                                       | 43            | 29                  | 37                      | 33                                 |

**Subsection 6.3.C: Impacts:** Earthquakes have caused minor structural damage such as collapsed chimneys, cracked plaster, bulged walls, and broken windows. They have also caused minor damage to the contents of buildings, such as broken dishes and items knocked from shelves. At least one earthquake, the 1929 Attica event, caused several water wells in the area to dry up. A large earthquake could cascade into fires, utility failures and major structural damage, but there is no historical precedent in Genesee County for severe property damage and/or injury/loss of life from earthquakes.

**Subsection 6.3.D: Damage:** Not Reported.

**Subsection 6.3.E: Future Probability:** 35 events/160 years (1838 to 1998) = 22%. This calculation indicates that earthquakes should be considered a low probability event. However, despite their rarity, earthquakes should be considered a High Probability event due to their potential to cause widespread damage.

**Subsection 6.3.F: Research:** Information on earthquakes was obtained from the Genesee County Historian’s Office, the Genesee County Hazard Analysis Report, the Genesee County ARC Disaster Response Plan, the *New York State Encyclopedia*, and the *New York State Standard Multi-Hazard Mitigation Plan*. The first earthquake event included in the following table occurred in about 1838.

**Recorded Earthquakes Affecting Genesee County:**

| Date       | Municipality   | Damage (\$)  | Description  |
|------------|----------------|--------------|--|
| Circa 1838 | Batavia area   | Not Reported | First recorded earthquake to strike the county. An account of the event was provided by George H. Holden, a former county clerk, and published in the <i>Batavia Daily News</i> in 1906. Mr. Holden did not recall the exact date of the quake, but he did remember it took place at about 7:00 AM because he was opening his family’s general store for business when the tremors began. The only damage he was aware of was some broken crockery in the store.   |
| 10/22/1844 | Genesee County | Not Reported | Mild earthquake occurred, no reports of damage. However, a group of Second Adventists living in Oakfield interpreted the quake as a sign that the end of the world was near. It wasn’t.  |
| 10/23/1857 | Genesee County | Not Reported | Minor earthquake reported. No description available.   |
| 12/22/1888 | Genesee County | Not Reported | Minor earthquake reported. No description available.   |
| 4/25/1898  | Byron          | Not Reported | Minor earthquake reported; buildings jarred and windows rattled.   |
| 2/10/1914  | Genesee County | Not Reported | Mild earthquake occurred, no reports of damage.  |
| 2/28/1925  | Genesee County | Not Reported | A minor earthquake struck the county at about 9:30 in the evening. Tremors were reported throughout the county, but no damage other than a few broken dishes was reported. Several people were startled by the tremors but no injuries were reported.  |
| 8/12/1929  | Genesee County | Not Reported | A major earthquake caused widespread structural damage in the Attica area. Reported damages included about 120 toppled chimneys, cracked plaster, bulged walls, broken windows, and damage to the contents of buildings such as broken dishes, items knocked from shelves, and pictures knocked off walls. Several water wells in the area also went dry. In Batavia, the only reported structural damage was to the Fire Hall’s bell cupola, which had to be demolished. This is the most destructive earthquake that has ever occurred in the county. The epicenter was five miles north of the village of Attica and the quake measured 5.2 on the Richter Scale. |
| 12/2/1929  | Genesee County | Not Reported | Two minor tremors shook the county during the evening; no damage or injuries. These tremors were considered aftershocks from the major August 12 <sup>th</sup> earthquake.   |

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|            |                |              |  |
|------------|----------------|--------------|--|
| 12/3/1929  | Genesee County | Not Reported | Seven minor tremors shook the county during the morning; no damage or injuries. These tremors were considered aftershocks from the major August 12 <sup>th</sup> earthquake.   |
| 1/17/1930  | Genesee County | Not Reported | Mild earthquake struck the county, no damage reported.   |
| 11/1/1935  | Genesee County | Not Reported | Mild earthquake occurred just after 1:00 in the morning, jolting people awake and sending many running into the streets. No injuries or major damage was reported. Minor damage included broken windows, cracked plaster, and damage to the contents of buildings. The quake was felt throughout the region and the epicenter was believed to be near Buffalo. |
| 2/23/1939  | Genesee County | Not Reported | Mild earthquake struck the county, no damage reported.   |
| 10/31/1939 | Genesee County | Not Reported | Mild earthquake struck the county, no damage reported.   |
| 2/12/1942  | Genesee County | Not Reported | Mild earthquake struck the county, no damage reported.   |
| 5/28/1942  | Genesee County | Not Reported | Mild earthquake struck the county, no damage reported.   |
| 2/26/1944  | Genesee County | Not Reported | Mild earthquake struck the county, no damage reported.   |
| 3/2/1944   | Genesee County | Not Reported | Mild earthquake struck the county, no damage reported.   |
| 9/5/1944   | Genesee County | Not Reported | Mild earthquake struck the county, no damage reported. This was the famous Massena earthquake, centered in the St. Lawrence valley, which remains today the most severe recorded earthquake ever to strike New York State. However, although it caused problems in and around Massena, Genesee County was too far away to suffer any damage.                   |
| 9/20/1946  | Genesee County | Not Reported | Mild earthquake struck the county, no damage reported.   |
| 1952       | Genesee County | Not Reported | Minor earthquake reported. No description available.   |
| 8/16/1955  | Genesee County | Not Reported | Mild earthquake struck the county, no damage reported.   |
| 1956       | Genesee County | Not Reported | Minor earthquake reported. No description available.   |
| 7/17/1965  | Genesee County | Not Reported | Mild earthquake struck the county, no damage reported.   |
| 8/26/1965  | Genesee County | Not Reported | Mild earthquake struck the county, no damage reported.   |
| 1/1/1966   | Genesee County | Not Reported | Genesee County was struck by an earthquake felt as far south as Pennsylvania and as far north as Toronto. Minor damage included several collapsed chimneys and damaged walls.  |
| 6/13/1967  | Genesee County | Not Reported | Minor earthquake reported. Minor damage included several collapsed chimneys and damaged walls.   |
| 8/12/1969  | Genesee County | Not Reported | An earthquake shook the county. It was measured a 3 on the Richter Scale. No damage reported.  |
| 2/8/1973   | Genesee County | Not Reported | Mild earthquake struck the county, no damage reported.   |
| 10/7/1983  | Genesee County | Not Reported | Minor earthquake shook the county early in the morning. No injuries or damage reported.  |
| 1/31/1986  | Genesee County | Not Reported | Minor earthquake shook the county, no damage reported.   |
| 3/3/1986   | Genesee County | Not Reported | Minor earthquake shook the county, no damage reported.   |
| 11/25/1988 | Genesee County | Not Reported | Minor earthquake shook the county in the early evening. No damage or injuries. Epicenter located 90 miles north of Quebec, Canada. The quake measured 6.0 on the Richter Scale.  |
| 3/5/1998   | Bethany        | Not Reported | Tremors caused minor damage to a house in Bethany.   |
| 9/25/1998  | Genesee County | Not Reported | An earthquake centered in northwestern Pennsylvania shook the county. The quake was a magnitude 5.2 on the Richter Scale. No damage or injuries reported.  |

### **SECTION 6.4: EPIDEMICS**

**Subsection 6.4.A: Definition:** The occurrence or outbreak of disease to an unusual number of individuals or proportion of the population, human or animal.

**Subsection 6.4.B: History:** There have been eight recorded incidents of epidemics or epidemic related incidents in Genesee County between 1900 and 2005. The most severe disease outbreak in the county was the famous Spanish Influenza outbreak in the autumn of 1918.

**Subsection 6.4.C: Impacts:** Past epidemics have not caused any property damage, but they did result in the closings and cancellations of schools, church services, civic gatherings, and businesses. Epidemics have sickened many people and have resulted in deaths, but

**Subsection 6.4.D: Damage:** Not Reported.

**Subsection 6.4.E: Future Probability:** 8 events/105 years = 7.6%. This hazard should be considered a Low Probability.

**Subsection 6.4.F: Research:** Information on epidemics was obtained from the Genesee County Hazard Analysis Report, the Genesee County ARC Disaster Response Plan, and the Genesee County Historian’s Office. The first epidemic event included in this report occurred in 1901.

**Epidemics Affecting Genesee County from 1900 to 2005**

*\*Indicates information that appears again under another hazard.*

| Date         | Municipality   | Damage (\$)  | Description   |
|--------------|----------------|--------------|---|
| 1901         | Pembroke       | Not Reported | East Pembroke School closed due to an outbreak of Scarlet Fever   |
| Oct., 1911   | Batavia        | Not Reported | First case of diphtheria discovered in Genesee County; outbreak sweeps through Batavia. Batavia Opera House and local schools closed to avoid the spread of disease.  |
| Feb., 1913   | Bergen         | Not Reported | Measles outbreak caused the High School to be shut down for several days.   |
| Autumn, 1918 | Genesee County | Not Reported | The worldwide Spanish Influenza outbreak struck Genesee County. Schools were closed; civic gatherings and church services canceled; theatres, restaurants, bars, ice cream parlors, and billiard halls were shut down. By mid October, about 250 cases were reported in Le Roy alone. In Batavia, a total of 397 cases were reported to the Health Officer. By January 1919 the disease had abated, but it continued to occur in increasingly less lethal waves into the early 1920s. |
| June, 1926   | Bethany        | Not Reported | Two cases of smallpox were reported in Bethany.   |
| Sept., 1939  | Genesee County | Not Reported | 51 polio cases were reported in the county. Some families were quarantined and complaints were registered about not enough precautions being taken.   |
| May, 1949    | Batavia        | Not Reported | 14 cases of tuberculosis were discovered; the Veteran’s Hospital was converted into a tuberculosis institution in April 1950  |
| Dec., 1957   | Genesee County | Not Reported | Asian Flu struck the county, filling hospitals and setting off a rush to obtain the flu vaccine.  |

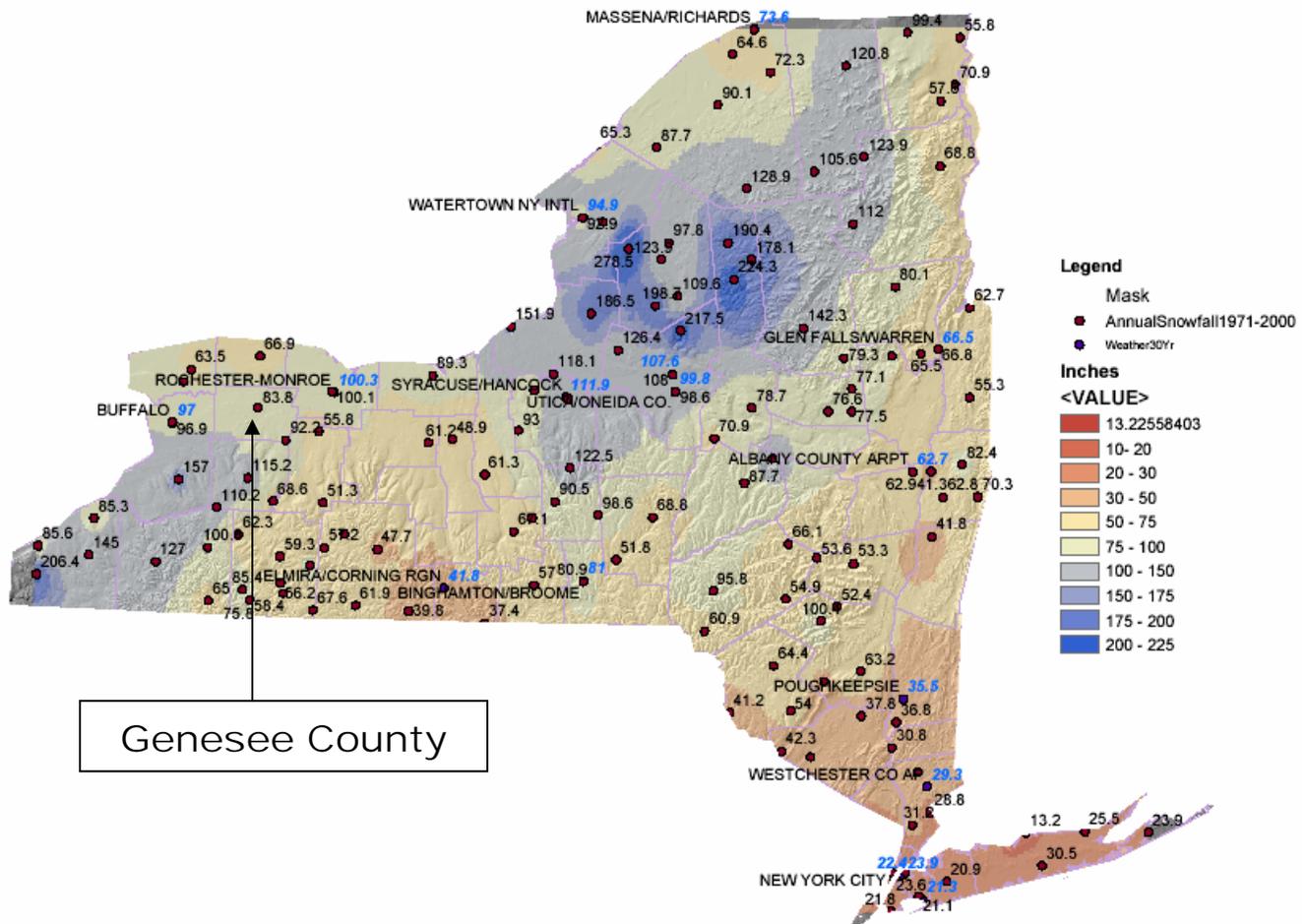
**SECTION 6.5: SEVERE WINTER STORMS**

**Subsection 6.5.A: Definition:** A storm system that develops in late fall to early spring and deposits wintry precipitation, such as snow (including lake effect), sleet, or freezing rain, with a significant impact on transportation systems and public safety.

**Subsection 6.5.B: History:** There have been about 50 recorded incidents of severe winter storms in Genesee County from 1993 to 2006, occurring frequently in the winter months between November and April. These storms may cascade into problems including transportation accidents, utility failure, extreme temperatures, and structural damage. These storms have deposited large amounts of snow county-wide and are often lake effect systems.

The map below is excerpted from the *New York State Standard Multi-Hazard Mitigation Plan*. It depicts the average annual snowfalls in various parts of the state for a 30 year period. As this map indicates, Genesee County is at risk for heavy snowfall and, by extension, severe winter weather. As a result of the County's location due east of Lake Erie, the western towns typically receive the heaviest snowfalls.

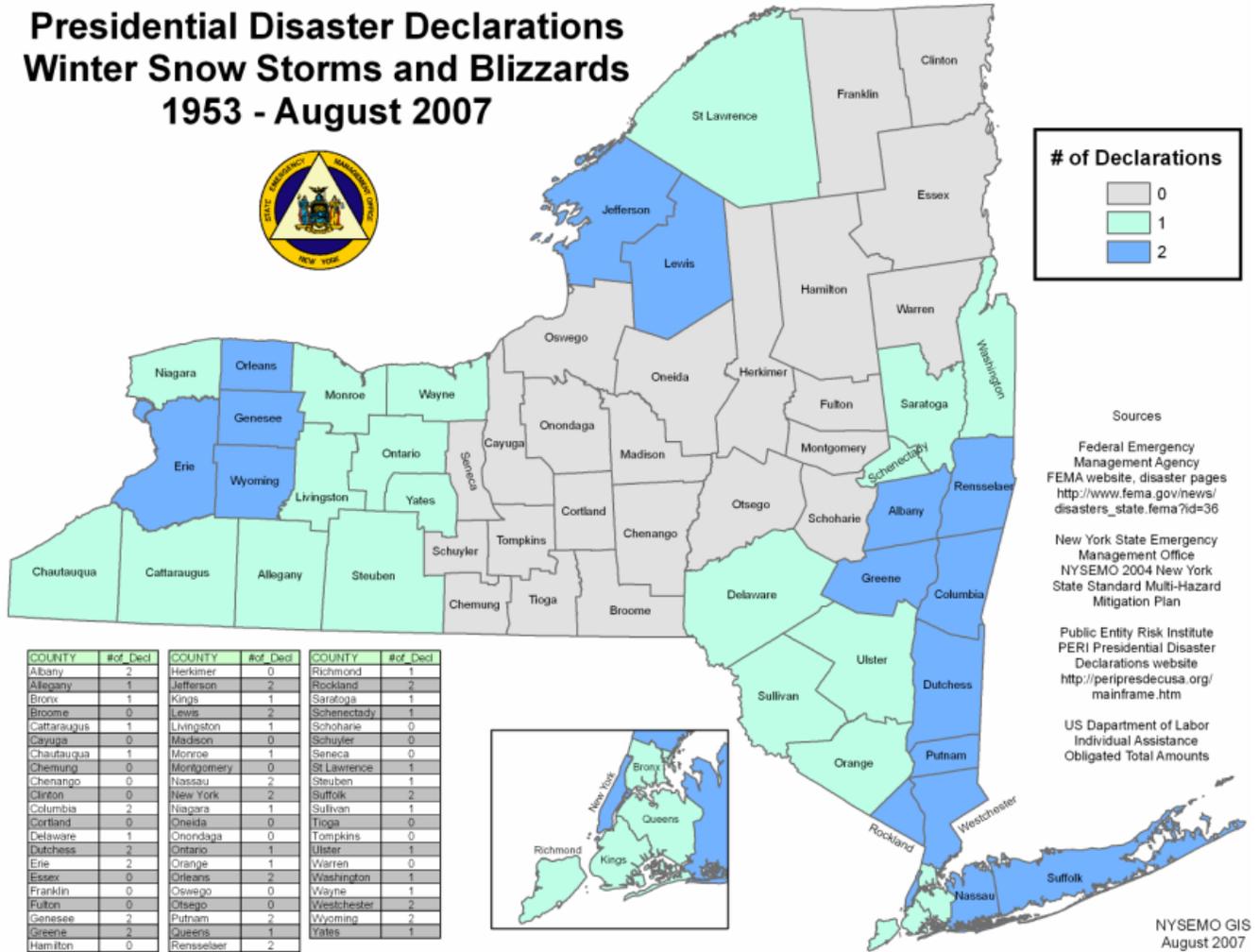
## Annual Snowfall Normals 1971-2000



**Source:** *New York State Standard Multi-Hazard Mitigation Plan*.

The map on the following page is also excerpted from the *New York State Standard Multi-Hazard Mitigation Plan*. It shows the number of Presidential Disaster Declarations by county in New York State. This map indicates that between 1953 and 2007 Genesee County has had two federal Winter Snow Storm/Blizzard disaster declarations. However, many more winter storms have occurred in the County than were indicated on this map. These events were addressed by local resources without calling in federal or state assistance.

## Presidential Disaster Declarations Winter Snow Storms and Blizzards 1953 - August 2007



Source: *New York State Standard Multi-Hazard Mitigation Plan.*

**Subsection 6.5.C: Impacts:** Severe winter storms generally cause power outages, downed lines, wires, and trees, transportation accidents, school closings, and structural damage.

**Subsection 6.5.D: Damage:** Reported damage totaled approximately \$173,205,000. This total does not include many of the economic costs such as those associated with closed businesses, reduced operations, employee absence, and limited or delayed agricultural operations.

**Subsection 6.5.E: Future Probability:** 55 events/13 years (1993-2006) = 385%. This hazard is considered a High Probability hazard. A more accurate calculation would be arrived at if more data was available for previous years, but even if that information was available, it would certainly indicate that multiple winter storms have occurred every year and, therefore, such storms should be considered a high probability hazard.

**Subsection 6.5.F: Research:** Severe winter storm data was obtained from the National Climatic Data Center (NCDC), beginning in 1955; and the *New York State Standard Multi-Hazard Mitigation Plan*. The first severe winter storm incident recorded in the NCDC’s database and included in this report occurred on January 13, 1993.

**Severe Winter Storms Affecting Genesee County from 1993 to 2006**

\*Indicates information that appears again under another hazard.

| Date       | Municipality   | Damage (\$)  | Injuries/Fatality | Description  |
|------------|----------------|--------------|-------------------|--|
| 1/13/1993  | Genesee County | Not Reported | 0/0               | A low pressure system which moved east from the eastern Great Lakes and a second low pressure system which formed along the Middle Atlantic Coast and moved northeast brought heavy snow to much of New York.*   |
| 2/12/1993  | Genesee County | Not Reported | 0/0               | A low pressure system moved up the Atlantic Coast on the 12th and 13th of February dumping heavy snow across eastern New York. In addition to the heavy snow many areas also received sleet and freezing rain with the storm, which added to traveling difficulties.*  |
| 2/16/1993  | Genesee County | Not Reported | 0/0               | A low pressure system moved northeast from the Tennessee Valley early on the 16th across southeastern New York and off the northern New England Coast on the 17th dumping heavy snow across much of eastern New York.*   |
| 3/13/1993  | Genesee County | Not Reported | 4/3               | The "Blizzard of 93", one of the worst storms this century, virtually shut down eastern New York on the weekend of March 13-14 forcing the closure of roads and airports. One of the most powerful storms on record moved up the Eastern Seaboard on the 13th and 14th of March coming close to establishing pressure and snowfall records in many locations.* |
| 4/1/1993   | Genesee County | Not Reported | 0/0               | Major winter storm. Some traffic accidents were also reported in the area due to the slippery roads.*  |
| 12/24/1993 | Genesee County | Not Reported | 0/0               | Snow Squall*   |
| 12/26/1993 | Genesee County | Not Reported | Some Fatalities   | Low pressure moved east across Southern Ontario pulling a cold front across Western New York. A brisk westerly flow produced heavy lake effect squalls both before and after the front. Numerous automobile accidents resulted from the slippery roads and near-blizzard conditions. A few resulted in fatalities.*  |
| 1/4/1994   | Genesee County | Not Reported | 0/0               | Heavy Snow*  |
| 3/10/1994  | Genesee County | Not Reported | 0/0               | Heavy Snow*  |
| 1/3/1995   | Genesee County | Not Reported | 0/0               | Heavy Snow*  |
| 2/7/1995   | Genesee County | Not Reported | 0/0               | Heavy Snow Squalls*  |
| 11/15/1995 | Genesee County | Not Reported | 0/0               | Heavy Snow*  |
| 1/3/1996   | Genesee County | Not Reported | Some Injuries     | A major winter storm brought heavy snowfall to the area. In general 12-20 inches of snow fell across the area with 18 inches being measured in Batavia. School closings were the rule. The winter road conditions were blamed for many automobile accidents, some with injuries.*  |
| 1/19/1996  | Genesee County | Not Reported | 0/0               | Rapid snowmelt of about a foot of snow combined with heavy rainfall to produce significant flooding.*  |
| 1/27/1996  | Genesee County | Not Reported | 0/0               | Deep low pressure over the upper Great Lakes brought strong winds to the area. The high winds downed trees and power lines.*   |
| 3/5/1996   | Genesee        | Not          | 0/0               | A late season winter storm dumped six to ten inches of   |

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|            |                |              |                 |   |
|------------|----------------|--------------|-----------------|---|
|            | County         | Reported     |                 | heavy, wet snow across portions of Western New York.*   |
| 1/10/1997  | Genesee County | Not Reported | Some Fatalities | Lake effect snow bands set up Friday morning over the Niagara peninsula and Niagara county before shifting south and east during the afternoon.*  |
| 1/16/1997  | Genesee County | Not Reported | Some Fatalities | Lake effect snows dropped between six and twelve inches of snow in intense bands off Lake Erie. The snows combined with strong winds to produce hazardous conditions. The New York State Thruway was closed between Henrietta and Depew for a good portion of the 17th. Numerous auto accidents, several fatal, were blamed on the snow and frequent whiteouts. Specific amounts included: Batavia 6".*   |
| 2/22/1997  | Genesee County | Not Reported | 1/1             | A strong cold front cross the region during the morning hours. Temperatures dropped 40 to 45 degrees with the passage of the front. The funneling effect of the Great Lakes combined with rapid pressure rises behind the front to produce hazardous winds. Trees, power lines and poles were downed across the entire area. Reports of homes and autos damaged by the falling trees and limbs were numerous. The strong winds caused structure damage in some locations tearing off roofs and shingles, blowing out windows, and collapsing walls.   |
| 2/27/1997  | Genesee County | Not Reported | 9/0             | Deep low pressure moved from Indiana to Ontario bringing high winds to the area. The strong winds downed trees and telephone and power lines. Power outages were reported throughout the area. Several cities and towns declared States of Emergency because of the prolonged lack of power. Windows were blown out of buildings. The strong winds caused structure damage in some locations tearing off roofs and sidings and collapsing walls. Homes and autos were damaged by falling limbs. Tractor trailers were blown over in Batavia. The drivers of those trucks suffered minor injuries. Specific gusts reported included: 50 knots at Batavia.* |
| 3/6/1997   | Genesee County | Not Reported |                 | Low pressure deepened rapidly as it passed across Pennsylvania and drew cold air southward changing rain over the area to heavy, wet snow. Totals ranged from six to nine inches near Lake Ontario to five to seven inches across metro Buffalo and the western Finger Lakes. Numerous accidents were blamed on the heavy snow which fell after several weeks of mild, spring-like conditions.*   |
| 3/14/1997  | Genesee County | Not Reported | Some Injuries   | Deepening low pressure over Missouri tracked northeast and brought a mix of ice and snow to the area. Several inches of the icy slush coated trees and power lines, the weight of which downed the trees and lines. Various school districts throughout the area cancelled classes because of the treacherous conditions. Countless automobile accidents, some with injuries, were blamed on the storm. Power outages were scattered across the region.*  |
| 11/14/1997 | Genesee County | Not Reported | Some Injuries   | An early season winter storm brought heavy snow to the area as low pressure moved north along the Atlantic coast. Snowfall amounts ranged from six to twelve inches across the region with the highest amounts over the Genesee valley and western Finger Lakes. The snow was wet and   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|            |                |              |                            |  |
|------------|----------------|--------------|----------------------------|--|
|            |                |              |                            | heavy and snarled traffic badly. Countless accidents were reported, many with injuries. Several school districts were forced to close..*   |
| 12/10/1997 | Genesee County | Not Reported |                            | Moisture associated with low pressure approaching the area overspread the region. Most locations had a burst of snow which fell at the rate of one to two inches per hour for several hours. The heaviest snow fell at the worst possible time, creating havoc with the rush hour traffic. Numerous auto accidents were blamed on the storm and several school districts were forced to close early.*  |
| 3/21/1998  | Genesee County | Not Reported |                            | Deep low pressure tracked from Kentucky to New England and brought heavy snow to the entire region. The storm began as a period of freezing rain and sleet Friday evening the 20th and changed over to snow early Saturday morning. The heaviest snow from the storm fell over the northern counties from the Buffalo-Niagara Falls area to Rochester and Oswego county. The snow made roadways extremely slick and innumerable accidents resulted. The heavy ice and snow on power lines and trees resulted in scattered power outages throughout the area.   |
| 12/22/1998 | Genesee County | Not Reported | Some Injuries, 1 fatality. | This first significant lake effect snowstorm of the season was a long lasting one. Arctic air surged into the region following the passage of a strong cold front. Lake snows never shut down off Lake Ontario throughout the four day event. The peak times for the event were Tuesday the 22nd--up to 18" off Lake Ontario; and Tuesday night--up to 18" off Lake Ontario. The storm totals were not overly impressive since the snow squalls oscillated across the area as winds shifted with the passage of weak troughs. Generally 8-12" fell in the snow belts Genesee county. The heavy falling and blowing snow reduced visibilities and driving conditions became treacherous. Numerous automobile accidents (several with injuries and one fatal) were blamed on the wintry conditions. Several school districts cancelled classes giving an early start to the holiday recess.* |
| 1/2/1999   | Genesee County | Not Reported | Some Injuries              | An intensifying storm over the Southern Plains moved northeast spreading a mix of snow, sleet and freezing rain across the area. Several inches of snow were followed by sleet and freezing rain. In some areas, especially east of Lake Ontario, an unprecedented four to five inches of sleet fell. The wintry precipitation stalled traffic and forced schools to extend the holiday break a few more days. Numerous automobile accidents, several with injuries, were blamed on the storm.*  |
| 1/4/1999   | Genesee County | Not Reported |                            | Heavy lake effect snow squalls began on the evening of the 3rd. Total snowfall from the 48 hour event was fairly consistent across the region due to the slow southerly drift of the snow band. The entire region had over a foot of snow.   |
| 1/6/1999   | Genesee County | Not Reported | Some Injuries              | Low pressure moving northeast across the region brought heavy snow and zero visibilities to the region. The synoptic snow was enhanced by moisture from the Great Lakes ahead of a cold front. Once the front moved through the region the cold air crossing Lakes Erie and Ontario  |

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|           |                |              |               |  |
|-----------|----------------|--------------|---------------|--|
|           |                |              |               | produced lake effect snow squalls. Numerous automobile accidents, several with injuries, were blamed on the heavy snow and reduced visibilities. It was the fourth significant lake effect event in two weeks.   |
| 1/9/1999  | Genesee County | Not Reported |               | A general snowfall fell across the region as a result of a large weather system over the Ohio Valley. Across parts of the Genesee Valley and Finger Lakes, snowfall amounts were somewhat lower...a result of a brief changeover to freezing rain.   |
| 1/15/1999 | Genesee County | Not Reported |               | Low pressure moved to the south of the area and produced a general heavy snowfall across the region. The heavy snows again resulted in traffic tie-ups and school closings. Visibilities were reduced and roads became treacherous from the ice mix of snow and sleet. A general snowfall of six to nine inches fell across the entire area. This latest bout only added to the harsh winter conditions across the region. Several counties in the area were declared disaster areas by the State and Federal government.*   |
| 1/23/1999 | Genesee County | Not Reported |               | Warm temperatures melted the snow pack from record snowfall in late December and early January. Nearly two feet of ripe snow pack dissolved to just a few inches remaining. The runoff caused flooding in poor drainage and low lying regions across the area with roads closed in some locations for a couple of days. Some of the hardest hit areas included Batavia and Corfu in Genesee County. The slower rising Ellicott and Tonawanda Creeks than rose above flood stage. The slower Tonawanda rose above flood stage at Batavia at 11:00 AM on the 24th and remained so for 24 hours.  |
| 3/4/1999  | Genesee County | Not Reported |               | Deep low pressure moved from West Virginia north across New York to Quebec, Canada. Heavy rain changed to heavy snow as cold air circulated into the region. Snow fell at the rate of two to three inches per hour. The Governor declared Genesee county a State Disaster Area. Genesee county was also declared a Federal Disaster Area. The National Guard was called on to help remove cars, rescue stranded motorists and deliver food and medical supplies. Schools and businesses were closed throughout the area. Nearly 10,000 customers lost power during the storm. Specific snowfall reports included: Batavia 12"; and Darien 7".* |
| 3/6/1999  | Genesee County | Not Reported | Some Injuries | A strong storm moved from Ohio to New England and dropped a general six to twelve inches of snow across the entire region. The snow fell just two days after much of the area was recovering from another major winter storm. The heavy snow was blamed for numerous auto accidents--some with injuries. Specific snowfall reports included: Darien, 9".*  |
| 1/4/2000  | Genesee County | Not Reported |               | Strong winds accompanied the passage of a cold front across the area during the late morning and early afternoon hours. Trees and power lines were downed by the winds. Power outages were scattered throughout the area.*   |
| 2/14/2000 | Genesee County | Not Reported |               | Low pressure moved across the Ohio Valley and Pennsylvania spreading a wintry mix of snow, sleet and   |

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|            |                |              |     | freezing rain across the area. Snowfall amounts of four to eight inches in addition to 1/4 to 1/2 inch ice were common across the Niagara Frontier, Western Southern Tier and Western Finger Lakes Region.   |
| 11/20/2000 | Genesee County | Not Reported |     | Cold air crossing the warm waters of Lakes Erie and Ontario resulted in lake effect squalls that dropped over two feet downwind of the lakes. Off Lake Erie, the squall developed around midday on the 20th in a southwest flow ahead of a cold front. Snow fell at the rate of two to four inches per hour for several hours. Tens of thousands of people were stranded in autos as city and suburban streets became clogged with traffic and came to a standstill. Three thousand school children were stranded in buses which were unable to complete their routes. Snowfall in this early stage was as high as two feet in a narrow strip about three miles wide. The flow turned to northwest, then north after the frontal passage late on the 22nd and brought several inches of fluffy snow to the south shore of Lake Ontario including the Rochester area. |
| 12/6/2000  | Genesee County | Not Reported |     | Lake effect snow bands meandered across the areas downwind of Lakes Erie and Ontario from late on the 5th through the 7th. A cold front crossed the region and ushered in a west to northwest flow of cold air. The squalls which developed dropped up to two feet of light, fluffy snow.*   |
| 3/4/2001   | Genesee County | Not Reported |     | A complex low pressure system that plagued the Northeast brought significant snowfall to western and central New York. The snow in western New York came in two phases from Sunday night to early Monday morning (4th-5th) and again Monday night to Tuesday morning (5th-6th). The heaviest snow fell during the first period and was associated with upper level energy, while the second snow period resulted from the western fringe of a large coastal storm south of New England. Snowfall totals for the 48-hour event were generally between 12-18" from the Genesee Valley eastward. Specific storm totals reported... Genesee county: 10" and 9" Batavia, Genesee county:  |
| 12/24/2001 | Genesee County | Not Reported | 0/1 | Lake effect snow bands developed and persisted for an unprecedented five days meandering north and south across the region. Multiple bands of snow developed over the Niagara peninsula during Snowfall rates of 4" per hour and thunder were reported during the evening. Specific storm totals In Genesee County: East Pembroke 29"; Darien 28"; Batavia 16"; and Alexander 14".   |
| 1/31/2002  | Genesee County | Not Reported |     | A three to five inch snowfall overnight of the 30th-31st turned to freezing rain during the morning hours. Ice accumulations of one-half to three-quarters inch occurred. Hundreds of thousands were left without power as the heavy ice build-up downed trees and power lines. Some areas were without power for up to 72 hours. Winds picked up and gusted to 55 mph. Trees and tree limbs fell blocking roads and damaging homes and automobiles. Tree damage included large and small limb breakage and bark damage as well as the uprooting of trees.   |
| 12/2/2002  | Genesee County | Not Reported |     | Lake effect snows developed in a cold, northwest flow during the overnight hours of the first. Specific reports  |

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|            |                |              |                            | included: East Pembroke 17".   |
| 4/4/2003   | Genesee County | Not Reported | 0/1                        | Low pressure over Illinois brought a mix of wintry weather to parts of the Genesee Valley, the Finger Lakes and the North Country. Across the Genesee Valley and the Finger Lakes, the precipitation fell mainly as freezing rain. Up to an inch of ice accumulation was measured. The heavy ice accumulation downed trees, limbs and power and telephone lines. Over 175000 customers lost power. In some cases power outages lasted for up to one week. Schools and businesses closed for several days. Over 100 shelters were opened to house people without utilities. The falling trees and power poles produced a significant amount of damage to structures and automobiles. Agriculturally, fruit trees were severely damaged. |
| 11/25/2003 | Genesee County | Not Reported |                            | The first lake effect event of the season was a brief but intense one. Lake effect snows developed behind a cold front. A single band of snow developed across northern Erie and Genesee counties. Snow fell at the rate of one to two inches per hour. Thunder and lightning was reported. Seven to ten inches of snow fell in a narrow area from Elma to Alden to Darien.*   |
| 12/14/2003 | Genesee County | Not Reported | Some Injuries, 1 fatality. | Low pressure intensified as it moved from the Gulf Coast up the mid-Atlantic coast to New England and brought a general snow to the entire region. The event lasted 24 to 30 hours from the early morning of Sunday the 14th through early Monday. Amounts across the Genesee Valley and western Finger Lakes ranged from six to twelve inches. Specific storm total amounts reported were: 8" in Batavia; and 7" in Leroy. The typical rash of automobile accidents occurred as a result of the wintry conditions. Several injuries, some serious, and one fatality (in Ira) were a reported in the accidents.  |
| 1/11/2004  | Genesee County | Not Reported |                            | A storm system moved from the central Great Lakes across New York State and blanketed the Niagara Frontier with seven to twelve inches of snow. Specific snowfall totals included: 8" at Batavia; and 7" at Darien.*   |
| 1/19/2004  | Genesee County | Not Reported |                            | The lake effect event began the afternoon of the 18th in a cold northwest flow. The snow bands continued and oscillated down wind of Lakes Erie and Ontario for nearly 60 hours. Off Lake Erie, 8" was recorded at Pembroke.*  |
| 3/16/2004  | Genesee County | Not Reported | Some Fatalities            | A low pressure system strengthened over the mid-Mississippi valley, moved to the Virginias, and then tracked northeast along the Atlantic coast. The late season storm produced ten to twenty inches of heavy, wet snow across much of the region. The snow began across the western southern tier around daybreak on the 16th and during the morning hours across the Niagara frontier and western Finger Lakes region. The snow continued, heavy at times, throughout the day and then began to taper off at midnight. Many schools and businesses heeded warnings and closed on the 16th and remained closed on the 17th. The storm was blamed for numerous automobile accidents, including several fatalities.                     |
| 1/22/2005  | Genesee County | Not Reported |                            | Low pressure over the Ohio Valley moved to the Virginia coast and then lifted northeast off the Atlantic Coast. The system brought widespread snowfall to the entire region  |

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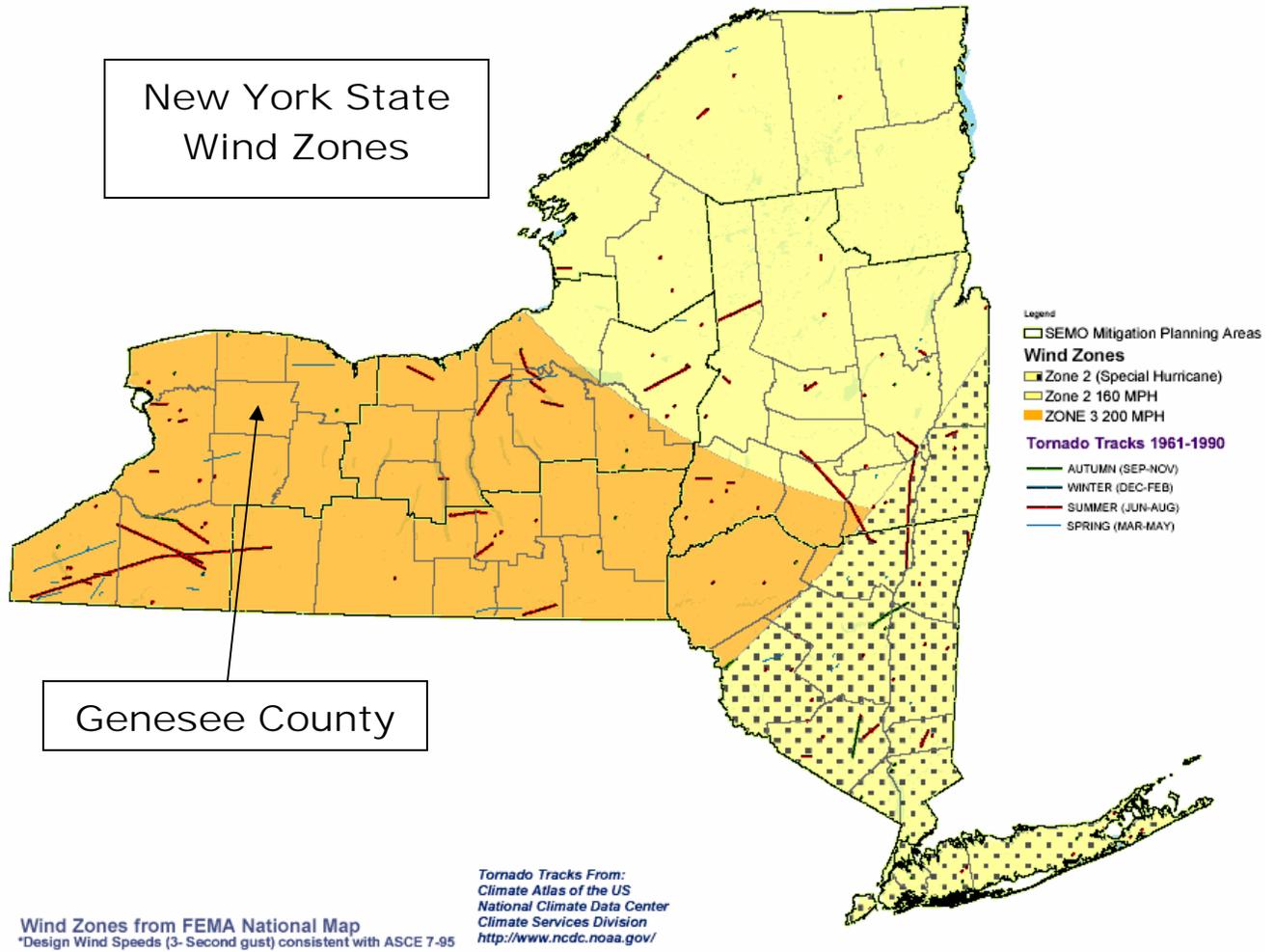
|            |                |              |  |   |
|------------|----------------|--------------|--|---|
|            |                |              |  | with eight to fourteen inch reports. Isolated reports of 20" were received due to lake enhancement. The winds, gusting to 40 mph, produced blizzard-like conditions in blowing and drifting snow. In several counties, travel was restricted to emergency vehicles only. Specific storm totals included: 10" at Batavia.*   |
| 3/1/2005   | Genesee County | Not Reported |  | An intensifying low over Indiana and Ohio on February 28th lifted slowly across Lake Erie. Snow overspread the area during the late afternoon hours of the 28th. It was generally light at first, but became moderate to heavy for a time across the northern Finger Lakes shortly after midnight. The snow finally tapered off during the morning and early afternoon hours of March 1st. Specific overnight snowfalls included: 9" at Alabama.* |
| 11/17/2005 | Genesee County | Not Reported |  | The first lake effect event of the season brought over a foot of heavy, wet snow to the areas downwind of Lake Erie while areas east of Lake Ontario received seven to ten inches.*   |
| 2/5/2006   | Genesee County | Not Reported |  | A cold front swept across the area and as the cold air deepened, lake effect snows developed. Off Lake Erie, the strong westerly winds reduced visibilities to 1/2 a mile at times and pushed the lake effect snows well inland into Genesee county and beyond. *   |
| 3/2/2006   | Genesee County | Not Reported |  | Low pressure developed over the Midwest then moved across Ohio and Pennsylvania spreading snow across the western sections. A blanket of eight to ten inches of snow covered parts of the Finger Lakes Region. The heavy wet snow made driving treacherous and numerous accidents resulted.*  |
| 3/2/2006   | Genesee County | Not Reported |  | Low pressure developed over the Midwest then moved across Ohio and Pennsylvania spreading snow across the western sections. A blanket of eight to ten inches of snow covered the western southern tier and parts of the Niagara Frontier and Finger Lakes Region. The heavy wet snow made driving treacherous and numerous accidents resulted.*   |
| 10/12/2006 | Genesee County | Not Reported |  | Major snowstorm caused widespread damage to trees, power lines, caused traffic accidents.*  |

**SECTION 6.6: SEVERE STORMS**

**Subsection 6.6.A: Definition:** Severe storms include weather events such as hail storms, windstorms, and severe thunderstorms (with associated severe wind events such as derechos, gustnados, and downbursts). A severe thunderstorm is one which produces tornados, hail 0.75 inches or more in diameter, or winds of 50 knots (58 mph) or more. Structural damage caused by high wind may imply the occurrence of a severe thunderstorm.

**Subsection 6.6.B: History:** There have been approximately 200 severe storm events in Genesee County during the past century. Severe Storms include hail storms, windstorms, and severe thunderstorms. These storms have occurred multiple times each year throughout the county. These storms may cascade into problems including utility failure, transportation accidents, structural damage, fire, and flooding.

The map below, based on the FEMA National Wind Zone map, depicts wind zones in New York State. Like all of western New York, Genesee County is located in Zone 3, where wind design speeds of up to 200 miles per hour are considered possible. This map indicates that wind speeds of up to 200 MPH are possible in the County and region.



Source: FEMA/NYSEMO All-Hazard Mitigation Plan Development Toolkit.

This map also shows selected tornado tracks. No tornado tracks are shown in Genesee County, but historical records indicate that at least three tornadoes have occurred within the county. Tornadoes are profiled separately under the “Tornado” hazard profile below (see page 112).

This map indicates a “Special Hurricane” zone in the southeastern part of the state, including Long Island, the metropolitan area of New York City, and the lower and mid Hudson Valley and Catskill Mountains. Genesee County is located well outside this zone, and hurricanes are not considered a viable threat to the County. If the remnants of a hurricane system passed over the County, heavy rains and flooding would be the most probable result.

**Subsection 6.6.C: Impacts:** Severe storms have interrupted utility services by downing power lines and telephone lines. They have interrupted transportation services, and have caused severe damage to trees as well as damage to automobiles, buildings, and other structures.

**Subsection 6.6.D: Damage:** Reported damage totaled approximately \$178,548,000 although costs have not been provided for all storms. This total does not include many of the economic costs such as those associated with closed businesses, reduced operations, employee absence, and limited or delayed agricultural operations.

**Subsection 6.6.E: Future Probability:** 106 events/105 years = 101%. This hazard is considered a High Probability hazard.

**Subsection 6.6.F: Research:** Severe storm data was obtained from the National Climatic Data Center (NCDC), beginning in 1955; and the *New York State Standard Multi-Hazard Mitigation Plan*. Other sources included archived materials at the Genesee County Historian’s Office. The first severe storm incident recorded in this report occurred on July 5, 1902.

**Severe Storms Affecting Genesee County from 1900 to 2005**

*\*Indicates information that appears again under another hazard.*

| Date        | Municipality                 | Damage (\$)  | Injuries/Fatality | Description  |
|-------------|------------------------------|--------------|-------------------|--|
| August 1913 | Genesee County               | Not Reported | 0/0               | Total of five inches of rain fell in one afternoon cloudburst.   |
| 1918        | Genesee County               | Not Reported | 0/0               | Tornado reported.  |
| 7/2/1932    | Genesee County               | Not Reported | 0/0               | High wind—reaching tornado intensity—caused electrical disturbances and damage to crops.   |
| 5/20/1940   | Genesee County               | Not Reported | 0/0               | Miniature cyclone and severe electrical storm that damaged silos, farm buildings, and machinery and uprooted hundreds of trees in its wake.  |
| 5/23/1945   | Genesee County               | Not Reported | 0/0               | Gale that produced extensive storm damage and uprooted many trees.   |
| 7/27/1947   | Genesee County—East Pembroke | Not Reported | 0/0               | Windstorm was the high point of a series of electrical disturbances with downpours that shattered all existing rainfall records for July, as the precipitation measured to the six-inch mark in Batavia. No housing damaged but many telephone and electric wires down. Some wheat rotted and the development of potato blight due to the rainy weather. |
| 5/15/1961   | Genesee County               | Not Reported | 0/0               | Thunderstorm/Strong Winds  |
| 8/18/1965   | Genesee County               | Not Reported | 0/0               | “Baby” tornado struck with the temperature at 89 degrees on one of the hottest and more humid days of the summer producing periods of heavy rain and lighter showers.  |
| 8/2/1969    | Genesee County               | Not Reported | 0/0               | Thunderstorm/Strong Winds  |
| 8/20/1970   | Genesee County               | Not Reported | 0/0               | Thunderstorm/Strong Winds  |
| 6/6/1973    | Genesee County               | Not Reported | 0/0               | Thunderstorm/Strong Winds  |
| 7/29/1974   | Genesee County               | Not Reported | 0/0               | Hail, .75 inches of precipitation.   |
| 5/12/1979   | Genesee County               | Not Reported | 0/0               | Hail, 1 inch of precipitation.   |
| 6/9/1980    | Genesee County               | Not Reported | 0/0               | Thunderstorm/Strong Winds  |
| 6/26/1980   | Genesee County               | Not Reported | 0/0               | Hail, .75 inches of precipitation.   |
| 6/26/1980   | Genesee                      | Not          | 0/0               | Thunderstorm, 56 kts. Wind.  |

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|            | County         | Reported     |     |  |
|------------|----------------|--------------|-----|--|
| 3/31/1982  | Genesee County | Not Reported | 0/0 | Hail, .75 inches of precipitation.   |
| 6/15/1982  | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 7/7/1982   | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 7/18/1982  | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 9/6/1983   | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 8/16/1984  | Genesee County | Not Reported | 0/0 | Hail, .75 inches of precipitation.   |
| 5/31/1985  | Genesee County | Not Reported | 0/0 | Hail, 2 inches of precipitation.   |
| 6/16/1986  | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 7/7/1986   | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 8/3/1986   | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 7/30/1987  | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 8/5/1988   | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 8/15/1988  | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 8/17/1988  | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 10/14/1989 | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 6/18/1990  | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 6/30/1990  | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 3/28/1991  | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 5/1/1991   | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 7/30/1991  | Genesee County | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 9/3/1993   | Genesee County | Not Reported | 0/2 | A F1 tornado touched down in a corn field in Batavia and moved northeast. The tornado tore the roof off a home and destroyed the attached garage. The roof was carried about 0.25 miles. As the tornado crossed Route 5, it lifted a delivery van into the air and dropped it onto an oncoming tractor trailer. Both drivers were killed instantly. The tornado continued moving northeast, briefly lifting over a field. At its second touchdown, the tornado uprooted several trees in a circular fashion. It then uprooted several more large trees which fell onto a house. As scattered path of damage continued northeast where additional damage occurred to a house and barn. Telephone poles were also snapped along the damage path. The tornado's path was 4 miles long and 65 yards wide.* |

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|------------|----------------|--------------|-----|--|
| 8/2/1994   | Genesee County | Not Reported | 0/0 | Flash Flood*   |
| 8/28/1994  | Darien Center  | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 6/26/1995  | Bergen         | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 7/13/1995  | Oakfield       | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 8/3/1995   | Stafford       | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 8/31/1995  | Batavia        | Not Reported | 0/0 | Thunderstorm/Strong Winds  |
| 3/25/1996  | Genesee County | Not Reported | 2/0 | A strong cold front swept through Western New York during the evening hours of the 25th. Strong south winds ahead of the front brought down trees, power lines and telephone lines. Velocities were measured as high as 74 mph. Damage was reported in the Batavia area.*                      |
| 4/13/1996  | Genesee County | Not Reported | 0/0 | A general one to two inch rainfall combined with lingering snowmelt from higher elevations to result in considerable lowland flooding. Most major creeks and rivers rose to bankful. The Genesee River was above flood stage for five hours. Oatka Creek was above flood stage for 31 hours.*  |
| 5/20/1996  | Elba           | Not Reported | 0/0 | A line of severe thunderstorms crossed the area producing damaging winds. The thunderstorm winds downed trees and power lines.*  |
| 5/20/1996  | Bergen         | Not Reported | 0/0 | A line of severe thunderstorms crossed the area producing damaging winds. The thunderstorm winds downed trees and power lines.*  |
| 6/9/1996   | Le Roy         | Not Reported | 0/0 | A thunderstorm moving across the eastern portions of the county produced 3/4" hail, damaging winds, and torrential rains. The winds downed trees and power lines. The storm dropped over 2.5" of rain in about an hour. Minor urban flooding occurred.*  |
| 6/20/1996  | Batavia        | Not Reported |     | Strong thunderstorms crossed the area during the early afternoon hours dropping rainfall amounts of one to two inches. The rain fell on already saturated ground producing flash flooding. Roads were closed because of the flood waters. Several basements were damaged by flooding.*         |
| 8/15/1996  | Alexander      | Not Reported |     | Thunderstorm/Strong Wind   |
| 10/30/1996 | Genesee County | Not Reported |     | Low pressure moving northeast across Lake Superior brought strong winds to the area. The winds brought down trees, tree limbs, and power lines. Over 2000 were without power. In Batavia, the winds blew down a large carnival tent and destroyed the tables and chairs that had been set up.* |
| 12/1/1996  | Pembroke       | Not Reported |     | A line of severe thunderstorms crossed the county. The thunderstorm winds downed trees and power lines resulting in scattered power outages.*  |
| 6/30/1997  | Alabama        | Not Reported |     | Hail, .75 inches of precipitation.   |
| 7/18/1997  | Corfu          | Not Reported |     | Thunderstorms developed ahead of a strong cold front and brought high winds and large hail to the region. The high winds downed trees and power lines and caused minor   |

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|-----------|----------------|--------------|-----|---|
|           |                |              |     | structural damage. The heavy rains that accompanied the storms resulted in minor urban flooding.*   |
| 9/29/1997 | Batavia        | Not Reported |     | Severe thunderstorms rolled across the area during the evening hours producing damaging winds estimated at sixty to seventy miles per hour. The winds downed trees and power lines and resulted in thousands being left without power.*   |
| 1/8/1998  | Le Roy         | Not Reported |     | Western and central New York was drenched with unprecedented January rainfalls over a 36 hour period. All of the region received between two and four inches of rain which fell on bare, saturated ground. The rapid runoff produced urban flooding as well as flooding of many small streams and creeks. Numerous roads throughout the area were closed due to flood waters. Local firefighting and public works departments were called out to pump water from flooded basements. The floodwaters overwhelmed several area wastewater treatment plants and water emergencies were declared. States of Emergency were also declared in various locations within the area.*   |
| 1/8/1998  | Genesee County | Not Reported |     | A general two and a half to three inches of rain fell in a two day period. The rain fell onto bare, already saturated ground. One hundred homes had to be evacuated in Batavia.*  |
| 1/8/1998  | Le Roy         | Not Reported |     | Western and central New York was drenched with unprecedented January rainfalls over a 36 hour period. All of the region received between two and four inches of rain...rain which fell on bare, saturated ground. The rapid runoff produced urban flooding as well as flooding of many small streams and creeks. Numerous roads throughout the area were closed due to flood waters. Local firefighting and public works departments were called out to pump water from flooded basements. The floodwaters overwhelmed several area wastewater treatment plants and water emergencies were declared. States of Emergency were also declared in various locations within the area. Several school districts cancelled classes. |
| 3/28/1998 | Genesee County | Not Reported |     | A fast moving squall line crossed the area during the afternoon hours. Winds, gusting over 70 mph, downed numerous trees and wires. Power outages were reported throughout the area. In Alabama, Genesee county, a camping trailer was overturned by the squall. Minor structural damage (i.e. siding torn off and roof shingles blown away) was also reported.*  |
| 5/4/1998  | Batavia        | Not Reported |     | A localized thunderstorm dropped three quarters of an inch of rain in less than an hour and inch and a quarter hail across the county. The hail accumulated several inches on the ground and piles of it could still be seen hours later.   |
| 5/4/1998  | Batavia        | Not Reported |     | A localized thunderstorm dropped three quarters of an inch of rain in less than an hour and inch and a quarter hail across the county. The hail accumulated several inches on the ground and piles of it could still be seen hours later.   |
| 5/31/1998 | East Pembroke  | Not Reported | 2/0 | A second round of storms for the day moved across the region during the evening hours. Again the thunderstorms produced high winds, large hail and torrential rains. Trees and power lines were downed across western New York. In the Rochester area, the power company reported 30  |

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|           |                |              |     | poles snapped by the winds and 40,000 customers without power. Lightning hit a car traveling on the New York State Thruway--traveled through the car to a door handle--burning the arm of 16 year old female passenger. Lightning throughout the area shattered trees and set a number of fires.   |
| 6/2/1998  | Batavia        | Not Reported |     | Severe thunderstorms swept across the entire region during the late afternoon and evening hours. The storms produced hailstones up to 1.5". Although the stones were not excessively large, what was unusual for the area was the number and coverage of the reported hail. Power outages were reported across the 13 county region.   |
| 6/26/1998 | Batavia        | Not Reported |     | Severe thunderstorms crossed the area during the early morning hours. The thunderstorms produced large hail and damaging winds which downed trees and power lines. The damage from thunderstorm winds paled in comparison to the damage resulting from the flash floods the thunderstorms produced.  |
| 6/26/1998 | Byron          | Not Reported |     | Severe thunderstorms crossed the area during the early morning hours. The thunderstorms produced large hail and damaging winds which downed trees and power lines. The damage from thunderstorm winds paled in comparison to the damage resulting from the flash floods the thunderstorms produced.  |
| 7/8/1998  | Genesee County | Not Reported | 0/2 | Localized thunderstorms early in the morning of the 8th dropped three to five inches of rain across parts of Erie, Genesee, and Livingston counties. Over five inches fell in just a few hours over much of Genesee county. This resulted in rare, widespread devastating flash flooding. Many small streams and creeks became raging torrents and the upper reaches of the Tonawanda Creek rose drastically--faster than at any time in at least 30 years according to locals--and flooded out much of the Village of Attica. Two deaths resulted from the flooding. A 28 year-old female and a 17 year-old male drowned while attempting to rescue animals from the basement of an animal clinic. More thunderstorms during the afternoon aggravated the flooding on the Tonawanda creek which rose well above flood stage downstream to Batavia the following day. A State of Emergency was declared for all of Genesee County. Nearly 400 buildings were damaged in Genesee county and damage to crop land was severe. The extensive flooding closed numerous roads throughout the multi-county area. Several were completely washed out. Specific road closures included: Rte.20 in Darien. In Attica alone, nearly one hundred homes and businesses were evacuated. Evacuations also occurred in Alexander. In the aftermath, Genesee, Livingston and Monroe counties were declared Federal Disaster Areas.* |
| 9/6/1998  | Batavia        | Not Reported | 1/0 | Across the area the damage path of a severe thunderstorm was nearly one hundred miles long and five to ten miles wide. Winds were estimated between 80 and 100 mph throughout the two hour event. Along the entire path, damage and debris all laid in an easterly direction consistent with the damage from straight-line winds. Most of the damage consisted of downed trees and limbs. The  |

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|------------|----------------|--------------|--------------|--|
|            |                |              |              | falling trees and limbs in turn downed power and telephone lines and resulted in damage to buildings and automobiles.  |
| 7/25/1999  | Alabama        | Not Reported |              | Severe thunderstorms developed along lake breezes from Lakes Erie and Ontario then crossed parts of western New York and the Finger Lakes Region during the early afternoon hours. The thunderstorms produced nickel-sized hail and brief downpours. The downburst winds from the thunderstorms downed trees and limbs.  |
| 7/31/1999  | Bergen         | Not Reported | 12+ Injuries | Violent thunderstorms ripped across western New York and the Finger Lakes region during the evening hours. The strong thunderstorms downed trees and power lines and left hundreds of thousands without power. Several roads were blocked by fallen debris. Several of the falling trees caused damage to houses and automobiles.  |
| 10/13/1999 | Corfu          | Not Reported |              | A strong cold front cross the area. The thunderstorms that accompanied the front produced damaging winds and large hail. The winds downed trees and power lines. About 10,000 customers lost their power. Winds frequently gusted near 60 mph.*  |
| 5/12/2000  | Byron          | Not Reported |              | Thunderstorms rolled across the Niagara Peninsula and then along the Lake Ontario shore counties. Only small hail was reported with the storms, however the storms produced hurricane-force winds. The high winds buffeted the area taking down trees and power lines. Various communities reported power outages of 12 hours or more.   |
| 7/16/2000  | Byron          | Not Reported |              | Heavy rains from thunderstorms dropped over two inches in a couple of hours. The flash flooding that resulted inundated roads, washing away a portion of the shoulder. A bean field was washed away.*  |
| 12/12/2000 | Genesee County | Not Reported |              | Deep low pressure over Ohio tracked northeast across the region. The strong pressure gradient on the back side of the low combined with rapid pressure rises resulted in very strong northwest winds across the region. The damaging winds downed trees and line throughout the area. Schools were forced to close. The Red Cross opened several shelters throughout the area. Over 50 crews from the Ontario Hydro Power Company in Canada assisted in power restoration. Power outages lasted from several hours to nearly a day in some spots.  |
| 2/10/2001  | Genesee County | Not Reported |              | Deep low pressure over the western Great Lakes moved across Ontario to Quebec and dragged a cold front across the area. Sustained winds of 20 to 30 mph were reported across the area with gusts up to 76 mph recorded. The strong winds downed trees and utility lines throughout the fourteen county area. Several hundred thousand customers were without power. Roads were blocked by downed trees. There were numerous reports of property damage from the winds, mostly from trees falling on buildings and cars. Specifically, this was reported from Genesee county. Specific measured wind gusts were: 61 mph in Alexander. |
| 2/25/2001  | Genesee County | Not Reported |              | Deep low pressure over the northern Great Lakes moved northeast to Quebec and pulled a strong cold front across the area. The strong winds that accompanied the system downed trees and power lines.   |

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|            |                |              |     |  |
|------------|----------------|--------------|-----|--|
| 2/1/2002   | Genesee County | Not Reported |     | A large scale storm system crossed the region on January 31st-February 1st bringing precipitation amounts of two to three inches to the region. The heavy rains on bare, saturated ground caused area creeks to rise with several exceeding flood stage. Tonawanda Creek at Batavia exceeded its 9 foot flood stage at 6 am on the 2nd and crested at 10.1 feet at 2pm.*   |
| 2/1/2002   | Genesee County | Not Reported | 2/0 | An intensifying storm moved across the Great Lakes and lifted northeast to the St. Lawrence Valley. Very strong winds behind the low blasted the region with wind gusts exceeding 55 mph. Trees and power lines were downed by the strong winds. Hundreds of thousands were without power...some for several days. Fallen trees and limbs littered the area and closed roads. Numerous reports of damage to homes and automobiles were received from throughout the area. Driving bans and States of Emergency were declared in several counties. Numerous school districts were forced to close on the first and several remained closed through the beginning of the following week. |
| 3/3/2002   | Genesee County | Not Reported |     | Low pressure over Indiana deepened as it moved northeast. Trees and power lines were downed.   |
| 3/9/2002   | Genesee County | Not Reported |     | Low pressure over Wisconsin deepened as it moved across Lake Superior and into northern Ontario. Strong winds accompanied and followed the passage of a cold front. The damaging winds affected the entire area, downing trees and power lines and causing some structural damage. Nearly 100,000 customers completely lost power with thousands others experiencing brief power outages.  |
| 7/29/2002  | Batavia        | Not Reported |     | Thunderstorms developed ahead of an advancing cold front. The thunderstorm winds downed trees and power lines and scattered outages were reported.*  |
| 2/4/2003   | Genesee County | Not Reported |     | Strong low pressure brought high winds to the region during the late morning and early afternoon hours. Trees and power lines were downed by the strong winds. Scattered power outages were reported with those affected totaling several thousand customers.  |
| 5/11/2003  | Stafford       | Not Reported |     | Strong thunderstorms moved across the Genesee Valley, Western Finger Lakes and eastern Lake Ontario region during the afternoon hours. The thunderstorm winds, estimated to 65 mph, downed trees in Stafford.  |
| 10/15/2003 | Genesee County | Not Reported |     | Low pressure over Ohio deepened as it moved across eastern Lake Erie and then across Lake Ontario. High winds buffeted the area downing trees and power lines and poles. Sustained winds of 30 to 40 mph with gusts to 70 mph were recorded. Power outages were reported throughout the area. It was estimated that as many as 50,000 were without power at some point. In numerous locations, the falling trees damaged buildings and automobiles.  |
| 11/12/2003 | Batavia        | Not Reported |     | Deep low pressure tracked across southern Ontario. Thunderstorms accompanied its associated cold front. The thunderstorms produced three-quarter inch hail just west of Batavia.   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|            |                |              |     |  |
|------------|----------------|--------------|-----|--|
| 11/13/2003 | Genesee County | Not Reported | 2/1 | Deep low pressure tracked across southern Ontario and brought strong, damaging winds to the entire area. The winds downed trees and power lines. The falling trees and poles damaged homes and automobiles. Specific reports of damage were received from Batavia. Tractor trailers jack-knifed or were blown over in Le Roy. School districts in several counties closed. Several major radio and television stations were knocked off the air. Several other fires, though not started by weather conditions, were fueled and spread by the strong winds. *  |
| 4/18/2004  | Darien         | Not Reported |     | Thunderstorm winds brought down numerous trees, utility poles, power lines and caused structural damage as a derecho crossed the region. There were also numerous reports of dime to nickel sized hail with isolated reports of one to one and a half inch hail over Genesee county. Up to 10,000 customers were temporarily left without power by the storm.*   |
| 4/18/2004  | Batavia        | Not Reported |     | Thunderstorm winds brought down numerous trees, utility poles, power lines and caused structural damage as a derecho crossed the region. There were also numerous reports of dime to nickel sized hail with isolated reports of one to one and a half inch hail over Genesee and southern Livingston counties. Up to 10,000 customers were temporarily left without power by the storm.*   |
| 5/20/2004  | Le Roy         | Not Reported |     | Thunderstorms developed along a front stalled across the Finger Lakes Region. The thunderstorm winds downed trees and power lines in Le Roy. The slow moving storms also produced up to three inches of rain in less than an hour. Several roads were closed.*   |
| 5/22/2004  | Darien         | Not Reported |     | Thunderstorms that developed along a nearly stationary front produced hail up to 1.25" in diameter and wind gusts measured to 61 mph. The slow moving thunderstorms also produced torrential rains that resulted in road closures and basement flooding.*  |
| 7/17/2004  | Elba           | Not Reported |     | An isolated thunderstorm produced downburst winds to 60 mph that downed trees and power lines in the Town of Elba.*  |
| 9/9/2004   | Genesee County | Not Reported | 0/1 | Western and central New York were inundated by drenching rains as the remnants of hurricane Frances drifted north across the region on Thursday September 9th. Area wide rainfall totaled 3 to 5 inches with the bulk of it falling in a 6 to 9 hour period from very late Wednesday to midday Thursday. Several creeks in the Buffalo and Rochester areas recorded their greatest flows and highest gage levels ever in a non-winter/spring season. Tonawanda Creek at Batavia was above the 9 foot flood stage from 5AM to 9PM Friday the 10th, cresting at 10.12 feet. Amounts tapered off to the south and east, but a good 2 to 3 inches still fell over the Finger Lakes In Cowlesville, Genesee county, a three-year-old boy drowned when he was swept away by flood waters while playing near a stream. His body was recovered further downstream along the banks of Cayuga Creek in Alden.* |
| 12/7/2004  | Genesee County | Not Reported |     | Low pressure tracked across the eastern Great Lakes bringing strong winds to the Genesee Valley of New York. Sustained winds were measured to 44 mph while gusts to  |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|           |                |              |     |   |
|-----------|----------------|--------------|-----|---|
|           |                |              |     | 63 mph were recorded. The winds downed trees and power lines and poles. Tens of thousands were without power. A car was demolished by a fallen tree in East Pembroke. Some roads were temporarily closed by downed trees, limbs and live wires.*  |
| 4/2/2005  | Genesee County | Not Reported | 1/0 | Deep low pressure over Pennsylvania brought copious amounts of precipitation to western and central New York...falling mainly as rain across much of the area. Rainfalls totals generally ranged from two to three inches. The rain, combined with snowmelt, produced flooding.*  |
| 6/13/2005 | Le Roy         | Not Reported |     | Low pressure, the remains of Hurricane Arlene, moved northeast across the Great Lakes. The bands of showers and thunderstorms produced damage across parts of the Finger Lakes. Several streets were impassable from runoff debris. The strong winds downed trees and limbs in Le Roy and Stafford,. Power outages were scattered throughout the area.* |
| 7/14/2005 | Batavia        | Not Reported |     | Thunderstorms developed in an unseasonably hot and humid air mass during the late afternoon and early evening hours. The storms downed trees and power lines.*  |
| 7/26/2005 | Genesee County | Not Reported | 2/0 | Severe thunderstorms developed ahead of an approaching cold front. The thunderstorms produced measured winds gusting to near 60 mph which downed trees and power lines.*  |
| 9/29/2005 | Batavia        | Not Reported |     | A strong cold front crossed the region during the early morning hours. The thunderstorms accompanying the front produced damaging winds that downed trees and power lines.*   |
| 11/6/2005 | Oakfield       | Not Reported |     | A cold front, accompanied by a line of severe thunderstorms, crossed the region during the afternoon hours. The thunderstorm winds downed trees and power lines. Scattered power outages were reported. Hail, up to 3/4" in diameter, fell across parts of the Finger Lakes.*   |
| 11/6/2005 | Genesee Falls  | Not Reported |     | Following the passage of a cold front, strong winds developed across the Niagara Frontier. Winds gusted to 66 mph. The winds downed trees and power lines throughout the five county area.*   |
| 11/9/2005 | Batavia        | Not Reported |     | Low pressure over the upper Great Lakes deepened as it moved to Quebec. The passage of the low brought strong thunderstorms to the area during the late morning and afternoon hours. The thunderstorm winds downed trees and power lines with scattered power outages reported. Hail, up to 1" in diameter, also accompanied the storms.*               |
| 2/17/2006 | Genesee County | Not Reported | 0/1 | Low pressure deepened as it tracked northeast into southern Ontario. The strong winds associated with the low downed trees and power lines throughout western New York and the north country. Damage from falling trees to buildings and automobiles was extensive.*  |
| 3/2/2006  | Genesee County | Not Reported |     | Low pressure developed over the Midwest then moved across Ohio and Pennsylvania spreading snow across the western sections. A blanket of eight to ten inches of snow covered the western southern tier and parts of the Niagara Frontier and Finger Lakes Region. The heavy wet snow made driving treacherous and numerous accidents resulted.*         |

|            |                |              |  |   |
|------------|----------------|--------------|--|---|
| 4/13/2006  | Batavia area   | Not Reported |  | Afternoon thunderstorms that developed produced hailstones up to one inch in diameter. In Batavia, the hailstones clumped together to produce masses of ice up to two inches in diameter. |
| 10/12/2006 | Genesee County | Not Reported |  | Major snowstorm caused widespread damage to trees, power lines, caused traffic accidents.*  |
| 12/1/2006  | Genesee County | Not Reported |  | High winds affected the County, causing widespread damage to trees, power lines.  |

**SECTION 6.7: ICE JAM**

**Subsection 6.7.A: Definition:** Large accumulation of ice in rivers or streams interrupting the normal flow of water and often leading to flooding conditions and/or damage to structures.

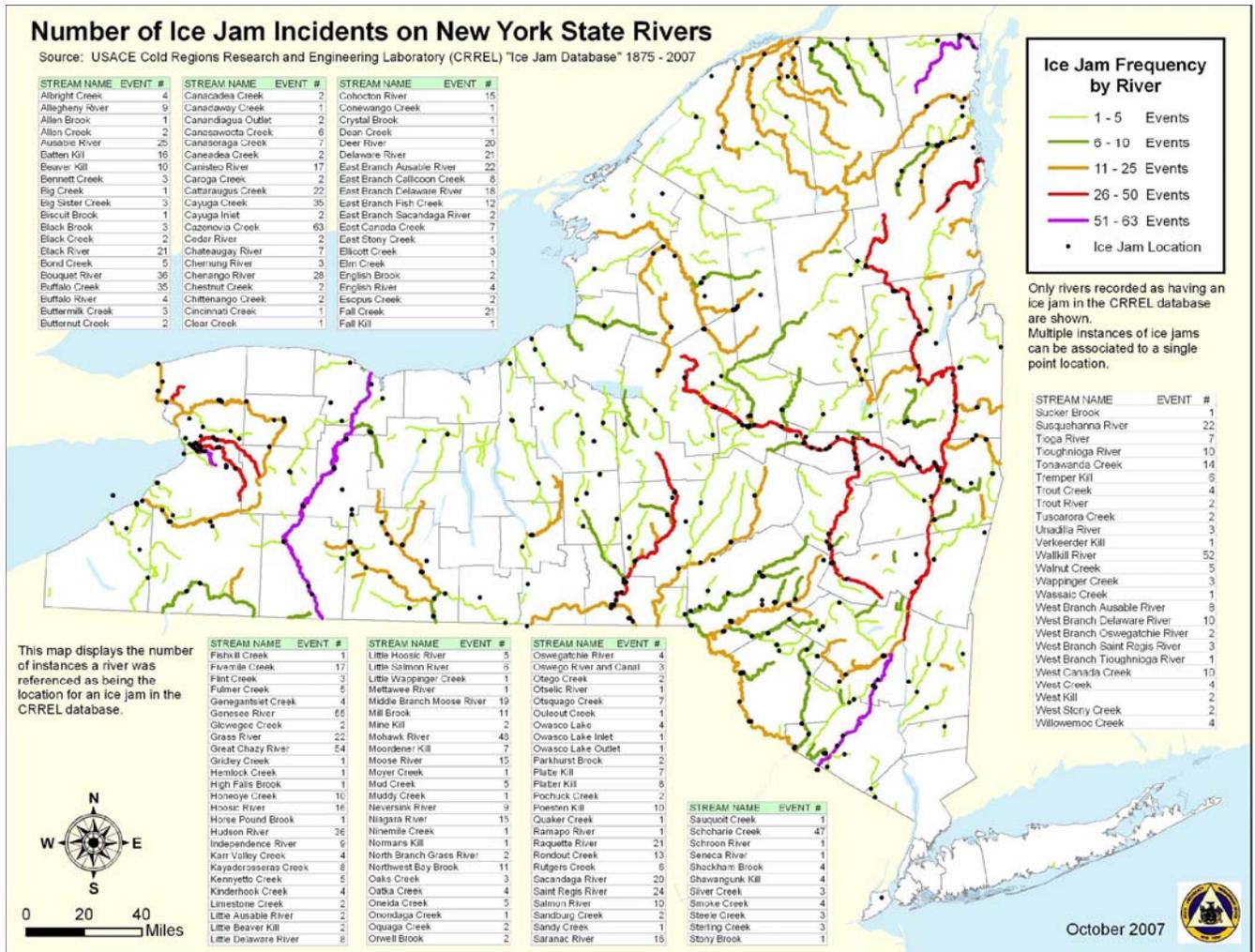
**Subsection 6.7.B: History:** Ice jams have occurred frequently and regularly during the winter months. Many ice jams have occurred at the bend in the Tonawanda Creek in the City of Batavia, while other ice jams have occurred at bridges and culverts on local rivers and streams.

Flooding caused by ice jams is similar to flash flooding. Ice jam formation causes a rapid rise of water at the jam and extending upstream. Failure or release of the jam causes sudden flooding downstream.

The formation of ice jams depends on the weather and physical conditions in river channels. Unlike the typical violent flash flooding occurrences where steep terrain is present, ice jams are most likely to occur where the channel slope naturally decreases, where culverts freeze solid at headwaters of reservoirs, at natural channel restrictions such as bends and bridges, and along shallows where channels may freeze solid. Ice jams are common in the Northeast United States and New York is not an exception, in fact, according to the US Army Corps of Engineers, New York State ranks second in the Nation for total number of ice jam events.

Ice jams and resulting floods can occur during fall freeze-up from the formation of frazil ice, during midwinter periods when stream channels freeze solid forming anchor ice, and during spring breakup when rising water levels from snowmelt or rainfall break existing ice cover into large floating masses that lodge at bridges, or other constructions. Damage from ice jam flooding usually exceeds that caused by open water flooding. Flood elevations are usually higher than predicted for free-flow conditions and water levels may change rapidly. Additional physical damage is caused by the force of ice impacting building and other structures. Because of the sometimes unpredictable nature of ice jam floods, FEMA’s Flood Insurance Rate Maps often do not reflect ice jam flood threats.

It is difficult to identify particular areas that are generally prone to ice jam flooding because the hazard can be very localized. Although, based on the causal characteristics, ice jam flood hazard is most prevalent in locations of flat terrain but also where climate includes extended periods of below freezing temperatures. Areas of New York that include characteristics leading to ice jam flooding include the northern counties of the Finger Lakes region and far western New York, the Mohawk Valley of central and eastern New York and the North Country. Analysis of various historical records support the indications of causal characteristic but also point out that there are few regions of the State that can be considered exempt from ice jam flooding hazard.



Source: New York State Standard Multi-Hazard Mitigation Plan.

The above map, excerpted from the *New York State Standard Multi-Hazard Mitigation Plan*, shows the locations of known ice jams along various rivers around the State. The Tonawanda Creek, which flows through Genesee County, is highlighted as a river with an ice jam frequency of between 11 to 25 events. Ice jams have occurred at several points along this river, including in the vicinity of the City of Batavia.

**Subsection 6.7.C: Impacts:** Ice jams generally cause localized flooding that can be responsible for power outages, potable water shortages, closings of schools and business, structural damage and private property damage. They are most critical to understand in relation of floods.

**Subsection 6.7.D: Damage:** Costs not provided.

**Subsection 6.7.E: Future Probability:** The exact number of previous ice jam incidents in Genesee County is unknown. Based on past data, it is probably that ice jams will continue to occur, so this hazard should be considered a High Probability hazard.

**Subsection 6.7.F: Research:** Ice jam data was obtained from the Genesee County Historian’s Office, the Genesee County Hazard Analysis Report, the Genesee County ARC Disaster Response Plan, and the *New York State Standard Multi-Hazard Mitigation Plan*.

## **SECTION 6.8: DROUGHT**

**Subsection 6.8.A: Definition:** A prolonged period of limited precipitation affecting the supply and quality of water.

**Subsection 6.8.B: History:** There have been no recorded incidents of severe drought in Genesee County from 1900 to 2005.

**Subsection 6.8.C: Impacts:** Droughts can damage crops, leading to revenue losses for the agricultural and food processing industries.

**Subsection 6.8.D: Damage:** Not Reported.

**Subsection 6.8.E: Future Probability:** 0 reported events/105 years = 0%. This hazard should be considered a Low Probability hazard.

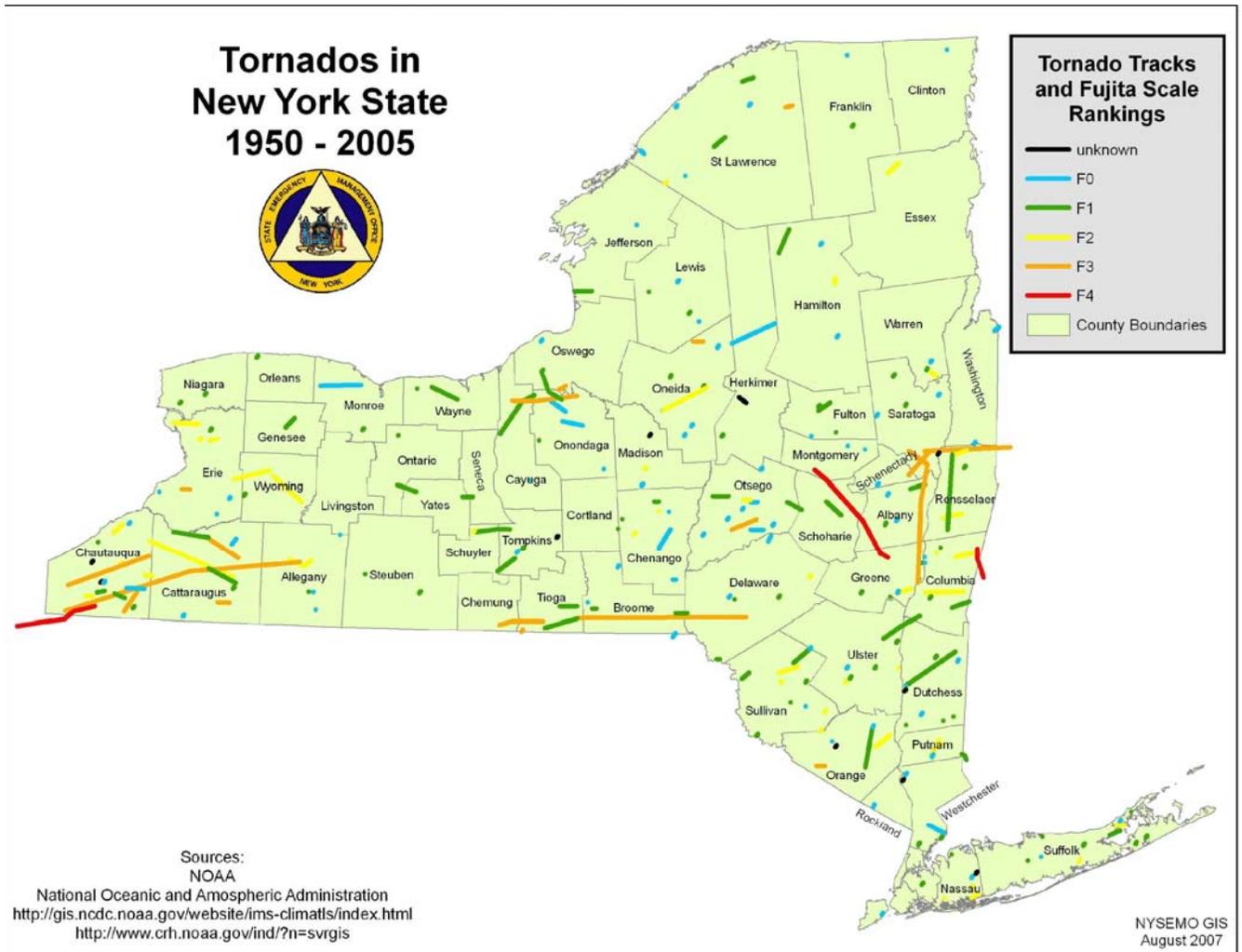
**Subsection 6.8.F: Research:** Information on droughts was obtained from the Genesee County Historian's Office and the National Climatic Data Center (NCDC). Additional sources include the Genesee County Hazard Analysis Report, the Genesee County ARC Disaster Response Plan, and the *New York State Standard Multi-Hazard Mitigation Plan*.

## **SECTION 6.9: TORNADOES**

**Subsection 6.9.A: Definition:** A local atmospheric storm, generally of short duration, formed by winds rotating at very high speeds, usually in a counterclockwise direction. The vortex, up to several hundred yards wide, is visible to the observer as a whirlpool-like column of winds rotating about a hollow cavity or funnel. Winds have been estimated to be as high as 400 mph.

**Subsection 6.9.B: History:** Three tornadoes have occurred in Genesee County since 1935. These tornadoes have not been major storms and have not caused widespread damage. One storm event with "tornado like winds" occurred in 1985. While not a confirmed tornado, this event caused damage consistent with a tornado's wind power. The 1993 tornado had the greatest impact on the county; it caused two deaths and damaged several buildings as well as downed power lines and uprooted some trees. This tornado was listed as having a magnitude of F1. The magnitudes of the others are unrecorded. Overall, tornadoes are very rare occurrences and are not considered a major threat to the county.

The map on the following page is excerpted from the *New York State Standard Multi-Hazard Mitigation Plan*. This map shows known tornado tracks in New York State for the time between 1950 and 2005. This map indicates that one F1 (wind speeds of between 73 and 112 miles per hour) tornado crossed the central part of the County near Batavia. However, historical records from sources in the County indicate that at least several other tornadoes have struck the area in the past. The map also indicates that other tornadoes have struck counties near Genesee, mainly to the west and south.



**Source:** *New York State Standard Multi-Hazard Mitigation Plan.*

**Subsection 6.9.C: Impacts:** Past tornadoes have caused downed trees, limbs and telephone and power lines. They were responsible for isolated structural damage, utility failures, and transportation accidents. Two fatalities occurred as a direct result of the 1993 tornado.

**Subsection 6.9.D: Damage:** The 1993 tornado caused \$500,000 in damages, reported damages from the other storms are either not accurately recorded.

**Subsection 6.9.E: Future Probability:** 5 events/105 years = 4.8%. This hazard should be considered as a Low Probability hazard.

**Subsection 6.9.F: Research:** Information on tornadoes was obtained from the Genesee County Historian’s Office and the National Climatic Data Center (NCDC). Additional sources include the Genesee County Hazard Analysis Report, the Genesee County ARC Disaster Response Plan, and the *New York State Standard Multi-Hazard Mitigation Plan.*

**Tornados Affecting Genesee County from 1900 to 2005**

*\*Indicates information that appears again under another hazard.*

| Date      | Municipality    | Damage (\$)              | Injuries/Fatality | Description  |
|-----------|-----------------|--------------------------|-------------------|--|
| 1918      | Genesee County  | Not Reported             | 0/0               | Tornado reported. No description available.  |
| 8/1/1935  | Elba            | Several thousand dollars | 0/0               | A tornado struck Elba, "causing damage in the thousands" of dollars.   |
| 5/17/1946 | Oakfield        | Not Reported             | 0/0               | A tornado demolished two barns in Oakfield.  |
| 4/1985    | Batavia & Byron | Not Reported             | 0/0               | Tornado-like winds struck the area over the course of several days in early April; knocking a trailer from its foundations in Byron and damaging a store roof in Batavia.  |
| 9/3/1993  | Genesee County  | 500,000                  | 0/2               | A F1 tornado touched down in a corn field in Batavia and moved northeast. The tornado tore the roof off a home and destroyed the attached garage. The roof was carried about 0.25 miles. As the tornado crossed Route 5, it lifted a delivery van into the air and dropped it onto an oncoming tractor trailer. Both drivers were killed instantly. The tornado continued moving northeast, briefly lifting over a field. At its second touchdown, the tornado uprooted several trees in a circular fashion. It then uprooted several more large trees which fell onto a house. As scattered path of damage continued northeast where additional damage occurred to a house and barn. Telephone poles were also snapped along the damage path. The tornado's path was 4 miles long and 65 yards wide.* |

**SECTION 6.10: AIR CONTAMINATION**

**Subsection 6.10.A: Definition:** This is pollution caused by atmospheric conditions such as a temperature inversion induced smoggy condition sufficiently serious to create some danger to human health.

**Subsection 6.10.B: History:** There have not been any major incidents of air contamination in the past. Genesee County is primarily a rural area and is not subject to urban air pollution issues. There have been 72 reported minor incidents of air contamination in Genesee County between 1979 and 2006. Most of these incidents were due to minor hazardous materials spills, not natural atmospheric conditions, and none of them caused significant damage. Air contamination incidents have occurred throughout the county, typically along major roads such as the NYS Thruway.

**Subsection 6.10.C: Impacts:** Air contamination could lead to widespread public health problems, especially respiratory ailments, and could contaminate food supplies.

**Subsection 6.10.D: Damage:** Not reported.

**Subsection 6.10.E: Future Probability:** 72 reported incidents/27 years = 267%. This hazard should be considered a High Probability hazard. However, this percentage applies towards man-made air contamination incidents, not naturally occurring events. The future probability for naturally occurring air contamination events would be much lower.

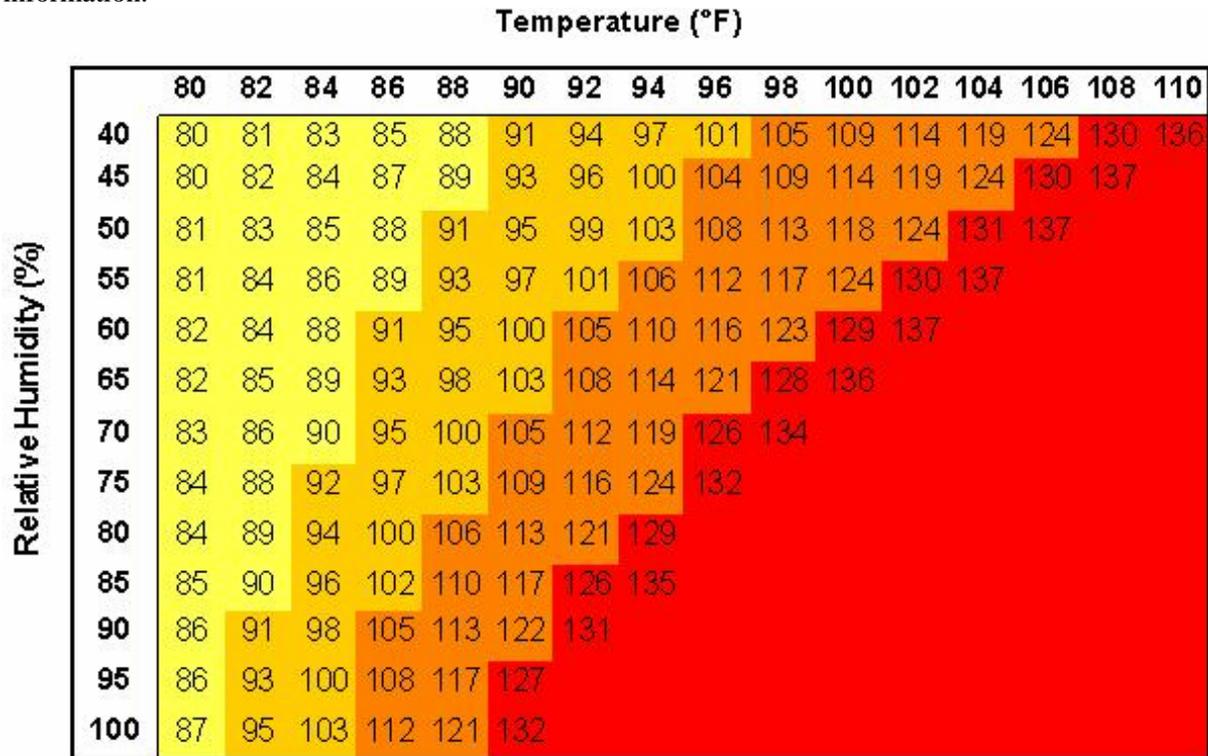
**Subsection 6.10.F: Research:** Air contamination incidents data was obtained from the Department of Environmental Conservation (DEC) Spills Database beginning in 1978.

**SECTION 6.11: EXTREME TEMPERATURES**

**Subsection 6.11.A: Definition:** Extended periods of excessive cold or hot weather with a serious impact on human and/or animal populations, particularly elderly and/or persons with respiratory ailments.

**Subsection 6.11.B: History:** There are no recorded incidents of extreme temperature events in Genesee County, although from time to time normal climatic variation has led to warmer or cooler temperatures than are typically expected. According to the County Historian’s office, the lowest recorded temperature in the County’s history was 28 degrees (Fahrenheit) below zero on February 9, 1934. The highest recorded temperature in the county’s history was 104 degrees (Fahrenheit) on July 9, 1936. The warmest recorded winter day was January 25, 1950; the temperatures reached 71 degrees that day. However, none of these events can be considered an “extended period” of excessive temperatures.

The Heat Index (HI), created by the National Weather Service, is a chart which accurately measures apparent temperature of the air as it increases with the relative humidity. The Heat Index can be used to determine what effects the temperature and humidity can have on the population. describes the adverse effects that prolonged exposures can have on individuals. To determine the Heat Index, you need the temperature and the relative humidity. Once both values are known, the Heat Index will be the corresponding number with both values. That number provides how it really feels. It is important to know that the Heat Index (HI) values are devised for shady, light wind conditions. Exposure to full sunshine can increase HI values by up to 15 degrees. Also, strong winds, particularly with very hot, dry-air can be extremely hazardous to individuals. Please see the following Heat Index chart for detailed information.



**Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity**

- Caution
- Extreme Caution
- Danger
- Extreme Danger

Source: New York State Standard Multi-Hazard Mitigation Plan.

The following table is excerpted from the *New York State Standard Multi-Hazard Mitigation Plan*, Section 3.5.8. It profiles the potential human health hazards that are associated with certain extreme temperature ranges as based on the Heat Index (HI) table above.

| Category               | Heat Index            | Health Hazards  |
|------------------------|-----------------------|---|
| <b>Extreme Danger</b>  | <b>130°F - Higher</b> | <b>Heat Stroke/ Sunstroke is likely with continued exposure.</b>  |
| <b>Danger</b>          | <b>105°F - 129°F</b>  | <b>Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and /or physical activity.</b> |
| <b>Extreme Caution</b> | <b>90°F - 105°F</b>   | <b>Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and /or physical activity.</b> |
| <b>Caution</b>         | <b>80°F - 90°F</b>    | <b>Fatigue possible with prolonged exposure and/or physical activity.</b>   |

Source: *New York State Standard Multi-Hazard Mitigation Plan*.

Please refer to the *New York State Standard Multi-Hazard Mitigation Plan*, Section 3.5.8, for additional information on the extreme heat hazard in New York State.

**Subsection 6.11.C: Impacts:** Below freezing temperatures periodically cause school and business closings throughout the county. Overall, extreme temperatures are considered an insignificant hazard in the county.

**Subsection 6.11.D: Damage:** Not reported.

**Subsection 6.11.E: Future Probability:** 0 events/105 years = 0%. This hazard is considered a Low Probability hazard.

**Subsection 6.11.F: Research:** Extreme temperature data was obtained from the Genesee County Emergency Management Office, the Genesee County ARC Disaster Response Plan, the Genesee County Historian’s Office, and the *New York State Standard Multi-Hazard Mitigation Plan*.

**SECTION 6.12: LANDSLIDE**

**Subsection 6.12.A: Definition:** The downward and outward movement of slope-forming materials reacting to the force of gravity. Slide materials may be composed of natural rock, soil, artificial fill, or combinations of these materials. The term landslide is generalized and includes rockfalls, rockslides, creep, block glides, debris slides, earth-flow, mud flow, slump, and other similar terms.

**Subsection 6.12.B: History:** According to the *New York State Standard Multi-Hazard Mitigation Plan*, at least one landslide has occurred in Genesee County in the past. However, the state plan does not provide any background information about this landslide. No other landslide incidents were discovered while conducting research on past hazard events in the county. Local officials do not consider landslides to be a significant danger or threat.

The following map, excerpted from the *New York State Standard Multi-Hazard Mitigation Plan*, provides information on the susceptibility to landslides of different areas within New York State. This map indicates that most of Genesee County has a low landslide incidence. The northernmost section of the County has a moderate susceptibility to landslides, but low incidence.



Natural variables that contribute to determining the overall risk of landslide activity in any particular area include soil properties, topographic position and slope, and historical incidence. The above landslide hazard susceptibility map, created by New York State Emergency Management Office, is based on United States Geological Survey data. The map categorizes the State using color codes provided by the USGS landslide susceptibility map and the NYS GS landslide incidence map. The landslide susceptibility map was created including two (2) primary characteristics that define landslide potential, terrain slopes and soil makeup or type.

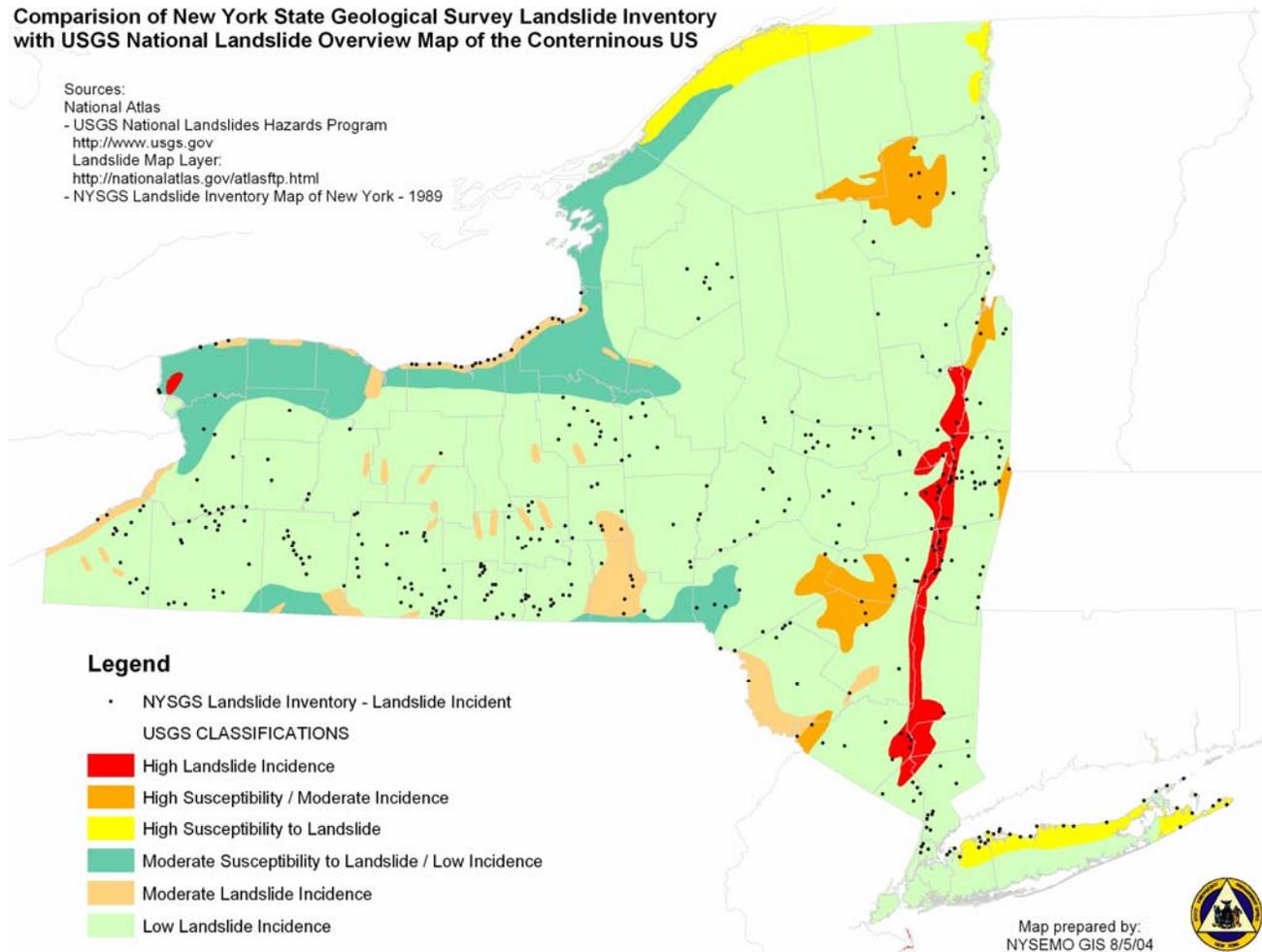
**Soils:** Most New York State soil consists of dense glacial till which stands up well to landslide tendency. However, there are certain types of soil that exist throughout the state that have a higher risk of landslide susceptibility and incidence. In particular, glacial lake clay soils which are abundant throughout the State have a higher risk for landslide occurrence.

**Terrain:** Logically, the steeper the slope the higher risk for landslide occurrence assuming other conditions that lead to landslides are present. However, according to the New York State Geological Survey, landslides can occur with very little slope, sometimes classified as earth slumping or earth flow. The threshold is estimated at 10 degrees slope or higher (> 10 degrees) when the susceptibility becomes significant.

Similarly, a tall slope or hill (referred to as a “relief”) would lend to a high risk. Geologists at the NYS geological survey identify relief (height) greater than 40ft as the general threshold where the potential becomes more significant.

**Triggers:** Another significant factor in landslide occurrence is what sets off the landslide or the causes of the landslide (trigger): Causes or triggers of landslides on marginally stable slopes can be both naturally occurring or human induced and includes three (3) primary factors; water saturation of the ground, loading, or increased weight at the top or high end of the slope, and taking away or removing weight from the bottom.

**Comparison of New York State Geological Survey Landslide Inventory with USGS National Landslide Overview Map of the Conterminous US**



**Source:** *New York State Standard Multi-Hazard Mitigation Plan.*

The map on the previous page, from the *New York State Standard Multi-Hazard Mitigation Plan*, indicates the *location* of all known and identified landslides in New York State. The information depicted on this map was compiled from a “Landslide Inventory Map of New York” produced by the New York State Geological Survey in cooperation with the United States Geological Survey. Based on reports listed by Alger and Brabb (1985, p. 69-70); unpublished landslide studies by A.R. Eschner, R.H. Fickies and T.J. Robak; and interviews or mail canvasses of Federal, State and Local engineers and geologists.

The locations of landslides from these sources were plotted by measuring the distance from landmarks. Large differences in scale, instability of paper source maps, and other technical problems led to errors of as much as one mile in transferring some locations. *Therefore, the locations of landslides shown are only approximate.* Certainly, many more landslides have occurred in New York that have not been recognized or recorded in public documents. The absence of a landslide symbol on this map, therefore, does not mean that an area is free of landslide. Conversely, the clustering of landslide symbols in an area does not necessarily imply that the area is unsafe, but rather that many landslides have been reported and that prudence requires investigation by qualified geologists and engineers before development takes place. This map should be considered preliminary, because as yet a systematic landslide evaluation of all areas in New York using standard photographic interpretation techniques has not been completed.

**Subsection 6.12.C: Impacts:** Landslides have not caused any major problems or damage in the past, but they could damage buildings and infrastructure, cause water quality problems, and contribute to the degradation of farmland.

**Subsection 6.12.D: Damage:** Not reported.

**Subsection 6.12.E: Future Probability:** 1 event/50 years = 2%. This hazard is considered a Low Probability hazard.

**Subsection 6.12.F: Research:** Information on landslide incidents was obtained from the Genesee County Historian’s Office, the Genesee County ARC Disaster Response Plan, and the *New York State Standard Multi-Hazard Mitigation Plan*.

## **SECTION 6.13: WILDFIRE**

**Subsection 6.13.A: Definition:** An uncontrollable combustion of trees, brush, or grass involving a substantial land area which may have the potential for threatening human life and property.

**Subsection 6.13.B: History:** Past incidents of wildfires in Genesee County have not been large scale disasters and have not caused major problems. Some field fires have occurred, and on at least one occasion a train locomotive inadvertently sparked a wildfire. The greatest danger from wildfires comes from the muckland in the north of the County. Fires here can burn underground for up to several days before they are detected, and special light weight vehicles are need to successfully combat them.

According to the *New York State Standard Multi-Hazard Mitigation Plan*, Genesee County is not considered a wildfire prone area. This plan does not provide any background information on past wildfires in the county. The Genesee County ARC Disaster Response Plan considers wildfires to be unlikely and infrequent events. Should a wildfire occur, the local ARC Chapter has sufficient resources to address the aftermath of the situation. Local officials do not consider wildfires to be a significant danger or threat.

**Subsection 6.13.C: Impacts:** Wildfires have damaged crops and burned through brush in and around farm fields.

**Subsection 6.13.D: Damage:** Not reported.

**Subsection 6.13.E: Future Probability:** 2 events/56 years = 3.6%. This hazard should be considered a Low Probability hazard.

**Subsection 6.13.F: Research:** Information on wildfire incidents was obtained from the Genesee County Historian’s Office, the Genesee County ARC Disaster Response Plan, and the *New York State Standard Multi-Hazard Mitigation Plan*.

**Wildfires Affecting Genesee County from 1950 to 2006**

*\*Indicates information that appears again under another hazard.*

| Date     | Municipality | Damage (\$)  | Fatalities/Injuries | Description  |
|----------|--------------|--------------|---------------------|--|
| 7/9/1988 | Byron        | Not reported | 0/0                 | A freight engine ignited a 13-mile stretch of field, which began burning in South Byron. |
| 4/1/1999 | Alabama      | Not reported | 0/0                 | Three field fires spread for more than half a mile.                                      |

**PART II – MAN-MADE HAZARD PROFILES**

**SECTION 6.14: HAZARDOUS MATERIALS – IN TRANSIT**

**Subsection 6.14.A: Definition:** The uncontrolled release of materials during transport, which when released can result in death or injury to people and/or damage to property and the environment through the material’s flammability, toxicity, corrosiveness, chemical instability and/or combustibility.

**Subsection 6.14.B: History:** According to the NYS DEC Spills Database, there have been 458 Hazmat-in-transit incidents in Genesee County between 1978 and 2005. These incidents have occurred multiple times each year and include accidents involving trains, commercial vehicles, and private automobiles. The most common elements spilled include diesel fuel, gasoline, kerosene, fuel oil, hydraulic oil, and agricultural chemicals, as well as various chemicals, food products, and other petroleum products in transit.

These incidents have occurred county-wide, but tend to occur along major transportation routes like Routes 33 and 63 and especially the Thruway, including the Pembroke rest station.

**Subsection 6.14.C: Impacts:** Hazmat-in-transit incidents have caused water, soil and air contamination; fires; explosions, utility failures, and human injury/loss of life.

**Subsection 6.14.D: Damage:** Costs not reported.

**Subsection 6.14.E: Future Probability:** 458 events/27 years = 1696%. This hazard is considered a High Probability hazard.

**Subsection 6.14.F: Research:** Hazmat-in-transit data was obtained from the Department of Environmental Conservation (DEC) Spills Database, the Genesee County Historian’s Office, the Genesee County Hazard Analysis Report, and the Genesee County ARC Disaster Response Plan.

## **SECTION 6.15: FIRE**

**Subsection 6.15.A: Definition:** The uncontrolled burning in residential, commercial, industrial, institutional, or other structures in developed area.

**Subsection 6.15.B: History:** Fires occur frequently and regularly in Genesee County. Fires have affected residential, commercial, and industrial structures. Fires have occurred for a variety of reasons, ranging from human negligence, carelessness and error to faulty equipment.

According to the Genesee County Hazard Analysis Report and the Genesee County ARC Disaster Response Plan, the worst case fire scenario in the County would be a fire outbreak that destroys an entire block in the City of Batavia. Such a fire could occur without any warning, burn for several days, cause massive structural damage, and would likely result in at least a few human casualties. However, the County's emergency responders are prepared to respond to such an event without calling in outside support.

**Subsection 6.15.C: Impacts:** In the past, fires have caused injuries and fatalities, major and minor structural damage, and utility outages. They can cascade into problems including explosions, air and water contamination, and structural damage.

**Subsection 6.15.D: Damage:** Not Reported.

**Subsection 6.15.E: Future Probability:** Data not available. This hazard should be considered a High Probability hazard.

**Subsection 6.15.F: Research:** Information on fires was obtained from the Genesee County Historian's Office, the Genesee County Hazard Analysis Report, and the Genesee County ARC Disaster Response Plan.

## **SECTION 6.16: HAZARDOUS MATERIALS – FIXED SITE**

**Subsection 6.16.A: Definition:** The uncontrolled release of material from a stationary facility, which when released can result in death or injury to people and/or damage to property and the environment through the material's flammability, toxicity, corrosiveness, chemical instability and/or combustibility.

**Subsection 6.16.B: History:** According to the NYS DEC Spills Database, there have been approximately 925 reported HAZMAT (Fixed Site) incidents in Genesee County between 1978 and 2005. These events have occurred regularly and frequently through these years. The most common materials spilled include diesel fuel, gasoline, kerosene, hydraulic oil, fuel oil, transformer oil, PCB oil, paint, agricultural chemicals, manure, automobile waste fluids, and untreated sewerage. These incidents have occurred county-wide, though most frequently in Batavia and Le Roy.

**Subsection 6.16.C: Impacts:** HAZMAT (fixed site) incidents have caused soil, water and air contamination; utility failures; fires; and human injury/loss of life.

**Subsection 6.16.D: Damage:** Costs not provided.

**Subsection 6.16.E: Future Probability:** 925 events/27 years = 3426%. This hazard should be considered a High Probability hazard.

**Subsection 6.16.F: Research:** Hazmat fixed site data was obtained from the Department of Environmental Conservation (DEC) Spills Database beginning in 1978. Other sources include the Genesee County Historian's Office, the Genesee County Hazard Analysis Report, and the Genesee County ARC Disaster Response Plan.

## **SECTION 6.17: WATER SUPPLY CONTAMINATION**

**Subsection 6.17.A: Definition:** The contamination or potential contamination of surface or subsurface public water supply by chemical or biological materials that results in restricted or diminished ability to use the water source.

**Subsection 6.17.B: History:** According to the NYS DEC Spills Database, there have been 337 incidents of potential and actual water supply contamination in Genesee County between 1978 and 2006. The majority of these incidents have been the result of hazardous materials spills and flooding. Substances such as oil, kerosene, gasoline, diesel fuel, agricultural chemicals, raw sewage, auto waste fluids, and other chemicals have been inadvertently released into the ground. Most of these spills have not contaminated drinking water supplies or caused major environmental damages, but the potential for such events exists. Previous spills have occurred county-wide, typically along major thoroughfares, construction sites, gas stations and auto repair shops, the Pembroke rest area.

The main reason why water supply contamination is assessed in this plan is because of the location of a large aquifer to the south of the City of Batavia, which is a source of drinking water for the City and would be affected by a major chemical spill on the CSX tracks that run through the City.

**Subsection 6.17.C: Impacts:** Water supply contamination has resulted in water contamination, fish kills, and algae.

**Subsection 6.17.D: Damage:** Costs not provided.

**Subsection 6.17.E: Future Probability:** 337 events/27 years = 1248%. This hazard should be considered a High Probability hazard.

**Subsection 6.17.F: Research:** Water supply contamination data was obtained from the Department of Environmental Conservation (DEC) Spills Database, Genesee County Historian's Office, the Genesee County Hazard Analysis Report, and the Genesee County ARC Disaster Response Plan.

## **SECTION 6.18: TRANSPORTATION ACCIDENTS**

**Subsection 6.18.A: Definition:** A mishap involving one or more conveyances on land, sea, and/or in the air which results in mass casualties and/or substantial loss of property.

**Subsection 6.18.B: History:** Transportation accidents are among the most common hazard incidents in Genesee County. Most transportation accidents tend to be traffic accidents involving one or more automobiles and/or trucks. Accidents involving tanker trucks have resulted in hazardous materials spills. Traffic accidents due to inclement weather occur every winter season, especially during storm events.

Historically, transportation accidents that have caused the greatest mass loss of life, destruction of property, and most severe environmental damage have been train wrecks. Major train wrecks have

periodically occurred in the county since the mid 1800s. Typically, train wrecks have occurred as a result of damaged tracks, faulty equipment, excessive speed, and human error. The most recent major train disaster was the derailing of the Amtrak Lake Shore Limited early in the morning of August 3<sup>rd</sup>, 1994. Fortunately, no fatalities occurred in this event.

**Subsection 6.18.C: Impacts:** Transportation accidents have caused human injuries and fatalities, spills of hazardous materials; contamination of the air, soil and water; and property damage. These accidents can and have caused into other problems including fires, explosions, and infrastructure damage. These incidents have occurred throughout the county, but tend to be concentrated on railroad tracks and along main roads.

**Subsection 6.18.D: Damage:** Costs not provided.

**Subsection 6.18.E: Future Probability:** Data not available. This hazard should be considered a High Probability hazard.

**Subsection 6.18.F: Research:** Information on transportation accidents was obtained from the Genesee County Historian's Office, the Genesee County Hazard Analysis Report, and the Genesee County ARC Disaster Response Plan.

## **SECTION 6.19: *ELECTRICAL GRID/UTILITY FAILURE***

**Subsection 6.19.A: Definition:** Loss of electric and/or natural gas supply, telephone service or public water supply as a result of an internal system failure and *not* by the effects of disaster agents.

**Subsection 6.19.B: History:** According to the Genesee County Hazard Analysis Report, two incidents of utility failure have occurred in the past. Grid failures happened in November 1965 and in August 2003; the latter event was part of the broader blackout that affected the entire northeastern United States and Ontario, Canada. In addition to these two events, numerous instances of isolated utility failures have occurred throughout the county as a direct result of severe weather events, usually ice storms and winter storms. However, these incidents have not typically posed major problems for the county and are considered a normal occurrence in the winter months.

**Subsection 6.19.C: Impacts:** Electrical Grid/Utility Failure would cause a disruption of normal utility services, leading to blackouts, loss of heating/cooling capabilities, disruption of transportation services, and other disruptions to normal daily activities. Depending on the length of time the grid is down, serious public health/safety issues could arise.

**Subsection 6.19.D: Damage:** Not Reported.

**Subsection 6.19.E: Future Probability:** 2 events/40 years = 5%. This hazard should be considered a Low Probability hazard.

**Subsection 6.19.F: Research:** Information on electrical grid/utility failure was obtained from the Genesee County Hazard Analysis Report, the Genesee County ARC Disaster Response Plan, and the Genesee County Historian's Office.

## **SECTION 6.20: DAM FAILURE**

**Subsection 6.20.A: Definition:** Structural deterioration, either gradual or sudden, resulting in the facility's inability to control impounded water as designed, resulting in danger to people and/or property in the potential inundation area.

**Subsection 6.20.B: History:** There is no history of major disasters occurring as a result of dam failure in the county. There are no large dams in the County, but numerous nineteenth century mill dams remain in place and some of these are in need of assessment in order to determine their safety. In addition, during the mid twentieth century several small dams were constructed in various wetland areas by NYS DEC to augment wildlife habitats. Beaver dams are also located throughout the County. There is currently no effective municipal or county-wide oversight of these structures.

The Genesee County Hazard Analysis Report does not profile past incidents of dam failure. However, a review of the Genesee County Flood Mitigation Plan indicates that at least one old mill dam has failed in recent years. Other dams, such as the Munson Street dam in the Village of Le Roy, are in need of repairs. A critical issue is the determination of ownership, which is often problematic given the age and location of many dams. Most dams in the County are located on private property, and many are very remote.

**Subsection 6.20.C: Impacts:** Dam failures primarily impact communities and properties sitting downstream from the dam. Dam failures could lead to flash flooding, property and infrastructure damage, and in a worse-case scenario human injury/loss of life.

**Subsection 6.20.D: Damage:** Not Reported.

**Subsection 6.20.E: Future Probability:** Data not available. This hazard should be considered a Low Probability hazard.

**Subsection 6.20.F: Research:** Information on dam failure was obtained from the Genesee County Hazard Analysis Report, the Genesee County Flood Mitigation Plan, the Genesee County ARC Disaster Response Plan, and the Genesee County Historian's Office.

## **SECTION 6.21: TERRORISM**

**Subsection 6.21.A: Definition:** The threat or use of violence to achieve political/social ends usually associated with community disruption and/or multiple injuries or deaths.

**Subsection 6.21.B: History:** There is no history of major terrorist activities in Genesee County. However, in the early 1900s rivalries and disputes among organized criminal groups resulted in several bombings in the City of Batavia, causing injuries and deaths as well as property damage.

While no major incidents have occurred, public officials have expressed concern about an attack aimed at disrupting transportation services, especially along the NYS Thruway. In addition, a major local concern is the vulnerability of water supplies. Local officials are concerned with safeguarding the county's water supplies from both intentional attacks and unintentional accidents. Terrorism in Genesee County could cascade into problems involving civil unrest; air, water and soil contamination; explosion; radiological threat; utility failure.

**Subsection 6.21.C: Impacts:** Terrorism and its unpredictability cause general disruption and fear in the community and in the lives of citizens.

**Subsection 6.21.D: Damage:** Not reported.

**Subsection 6.21.E: Future Probability:** 3 events/105 years = 2.8%. This hazard should be considered a Low Probability hazard.

**Subsection 6.21.F: Research:** Information on terrorism was obtained from the Genesee County Historian’s Office, the Genesee County Hazard Analysis Report and the Genesee County ARC Disaster Response Plan.

**Terrorist Acts Affecting Genesee County from 1900 to 2005**

| Date      | Municipality | Damage (\$)  | Description   |
|-----------|--------------|--------------|---|
| 9/9/1911  | Batavia      | Not Reported | The house and store of Charles Colaezzi were wrecked by two bombs placed on the veranda.  |
| 9/15/1911 | Batavia      | Not Reported | John Carneski was killed by a bomb blast when he went to his well to draw water. The well's handle was rigged to an explosive device. |
| 9/25/1919 | Batavia      | Not Reported | A powerful bomb blast destroyed the home of Samuel Battaglia, killing him, his wife, and their 18 month old son.                      |

**SECTION 6.22: CIVIL UNREST**

**Subsection 6.22.A: Definition:** An individual or collective action causing serious interference with the peace, security, and/or functioning of a community (e.g., riot).

**Subsection 6.22.B: History:** According to the Genesee County Historian’s Office there have not been any incidents of civil unrest in the twentieth century. In the early and mid-nineteenth century several instances of civil unrest occurred, such as in 1836 when a group of farmers marched on Batavia to protest changes in the Holland Land Company’s fiscal policies regarding land holdings. However, the causes of these events are no longer applicable today and local officials do not consider civil unrest to be a major threat. The only municipality that identified civil unrest as a potential issue is the Town of Alabama, which is concerned about the possibility of problems on the Tonawanda Indian reservation.

The only major instance of civil unrest occurring near the county happened in 1971 when a prison riot broke out at the Attica State Correctional Facility, just a short ways south of the Genesee/Wyoming county line in the Town of Attica.

**Subsection 6.22.C: Impacts:** Potential impacts may include fire, explosion, epidemic, property damage and rioting.

**Subsection 6.22.D: Damage:** Not reported.

**Subsection 6.22.E: Future Probability:** This hazard should be considered a Low Probability hazard.

**Subsection 6.22.F: Research:** Information on civil unrest incidents was obtained from the Genesee County Historian’s Office, the Genesee County Hazard Analysis Report, the Genesee County ARC Disaster Response Plan, and the *Encyclopedia of New York State*.

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## Chapter 7: Risk Assessment

### SECTION 7.1: PURPOSE

The purpose of the risk assessment is to:

- Inventory critical facilities and community assets in Genesee County;
- Assess the vulnerability of the critical facilities and community assets to the high priority hazards identified in the hazard analysis;
- Estimate potential losses in a hazard event; and
- Assess future vulnerability based on development trends.

### SECTION 7.2: METHODOLOGY

#### Subsection 7.2.A: Develop Criteria

The planning committee was provided with draft criteria to be used in developing a consistent list of critical facilities and community assets. Using the FEMA How-To Guide *Understanding Your Risks* and the DRAFT Ontario County Multi-Jurisdictional All-Hazard Mitigation Plan, a set of criteria were prepared by G/FLRPC. The criteria were reviewed and approved by the planning committee and used to develop the list of vulnerable critical facilities and community assets.

#### Criteria for Inventory of Critical Facilities and Community Assets

**Critical Facilities** are facilities important to the community. They include essential facilities, transportation systems, lifeline utility systems, high potential loss facilities, and hazardous materials facilities.

*Essential Facilities* are essential to the health and welfare of the whole population and are especially important following hazard events. The potential consequences of losing them are so great that they should be carefully inventoried. Vulnerability is based on the service they provide rather than just their physical aspects; therefore, not only their structural integrity and content value should be considered, but also the effects of interrupting their functions. Essential facilities include hospitals and other medical facilities, police and fire stations, emergency operations centers and evacuation shelters, and schools.

*Transportation Systems* include airways – airports, airstrips, and heliports; highways – bridges, tunnels, roadbeds, overpasses, and transfer centers; railways – trackage, tunnels, bridges, rail yards, and depots; waterways – canals, locks, seaports, ferries, harbors, drydocks, and piers.

*Lifeline Utility Systems* such as potable water, wastewater, oil, natural gas, electric power, and communication systems. This includes such facilities as electrical sub stations, water treatment facilities, telephone central offices, and wastewater facilities.

*High Potential Loss Facilities* are facilities that would have a high loss associated with them, such as nuclear power plants, dams and military installations.

*Hazardous Material Facilities* include facilities housing industrial/hazardous materials, such as corrosives, explosives, flammable materials, radioactive materials, and toxins.

**Community Assets** are other community elements that might be vulnerable to particular types of hazards, and could present a different type of loss than a critical facility. Community assets include vulnerable

populations, economic elements, historic and cultural resource areas, natural resource and recreation areas, high density development areas, and facilities providing important services.

*Vulnerable Populations* are people, such as non-English speakers or the elderly, who may require special response assistance or special medical care after a disaster. Locations identified may include senior citizen complexes, group homes or mobile home parks. Also included in this category are groups of properties that are vulnerable to certain hazards, such as FEMA flood zones.

*Economic Elements* are major employers and financial centers in the county that could affect the local or regional economy if significantly disrupted. Major employers are those with 50 employees or more, and may even be located outside the county, while still employing a significant number of county residents.

*Historic and Cultural Resource Areas* are historic properties and cultural facilities that are identified and protected on the State and National Register of Historic Places, as well as those identified by the Planning Committee as significant to local history and culture.

*Natural Resource and Recreation Areas* include major natural resource and recreational areas that are considered unique or valuable to the community. Possible resources include major waterbodies, streams, wetlands, parks, forested areas, and large areas potentially susceptible to wildfires.

*High Density Development Areas* are areas of high-density residential or commercial development that, if damaged, could result in high death tolls and injury rates.

*Facilities Providing Important Services* are facilities that provide important services, such as government buildings, banks and certain commercial establishments, such as grocery stores, hardware stores and gas stations.

### **Subsection 7.2.B: Inventory Critical Facilities and Community Assets**

G/FLRPC began the process of identifying Critical Facilities and Community Assets by using the above criteria to generate preliminary maps of these locations. Real Property Services parcel data, which was provided to G/FLRPC at the beginning of the project by the Genesee County Department of Planning, was used to map these locations. During the Planning Committee meetings, the Regional (Municipal) meetings, and the County Agency/Non-municipal meetings held during the summer of 2006, these preliminary maps were edited and modified by the Planning Committee members. The updated maps were reviewed by the Planning Committee at its September meeting and later confirmed by the County Emergency Management and Planning departments.

The following list breaks down the master list of Critical Facilities and Community Assets into two divisions, **Critical Facilities** and **Community Assets**. Each of these divisions is further broken down into five subdivisions, which clarify the functions of the facilities analyzed in this plan.

#### **I. Critical Facilities:**

##### *1. Essential Facilities*

- Emergency Operations Centers
- Evacuation Centers
- Sheriff & Police Stations
- County Courthouse & Jail
- Fire Stations
- Schools
- Hospitals, Clinics & Other Medical Facilities

- Village DPW & Town Highway Garages
- 2. *Transportation Systems(Infrastructure)*
  - Railroads
  - State & County Roads
  - State & County (selected) Bridges
- 3. *Lifeline Utility Systems*
  - Water Supply Infrastructure
  - Sewage Systems and Treatment Infrastructure
  - Communication Facilities
  - Telephone Facilities
  - Electric Lines, Substations, etc.
- 4. *High Potential Loss Facilities*
  - Dams
  - Prisons
- 5. *Hazardous Material Facilities*
  - Gasoline/Diesel Fuel Storage and/or Distribution
  - Manufacturing and Processing Facilities
  - Farms – Fertilizer/Chemical Storage

## **II. Community Assets:**

- 6. *Vulnerable Populations*
  - Nursing Homes
  - Homes for the Aged
  - Intermediate Care Facilities
  - Child Care Centers
  - Mobile Home Parks
- 7. *Economic Elements*
  - Major Employers
  - Manufacturing and Processing Facilities
- 8. *Historic and Cultural Resource Areas*
  - Architectural Landmarks
  - Historic Sites
  - Public Libraries, Community Centers, Recreation Halls
- 9. *Natural Resource and Recreation Areas*
  - State Owned Public Parks, Recreation Areas, and other Multiple Use Areas
  - County Owned Public Parks and Recreation Areas
  - Town/Village Public Parks and Recreation Areas
  - Marinas
  - Racetracks
- 10. *Facilities Providing Important Services*
  - Government Offices (Town & Village Halls, County Buildings)

The complete Master List of Critical Facilities and Community Assets is provided in Appendix B, *Genesee County Vulnerability Assessment*.

### **Subsection 7.2.C: Assess Vulnerability of Critical Facilities and Community Assets**

The hazard analysis identified the hazard types to be analyzed, and the inventory identified critical facilities and community assets. To assess vulnerability of each facility and asset, G/FLRPC used a computer model to overlay the assets and facilities with the hazard risk areas. This model was developed using GIS, Microsoft Access and Excel software. The following chart lists the extents considered in

assessing vulnerability. It is important to note that all Genesee County residents and properties are generally vulnerable to certain types of hazards, including severe weather events such as ice storms, winter storms, severe storms, tornadoes, and extreme temperatures. Other potential countywide hazards include fires, earthquakes, utility failures, terrorism, and epidemics.

**Table 7.1: Hazard Concerns and Impact Areas for Genesee County**

| <b>Countywide Hazard Concerns and Impact Areas</b> |  |
|--|--|
| <b>Hazard Concerns:</b>                            | <b>Hazard Impact Areas:</b>  |
| Hazmat (In Transit)                                | Railroads, State and County roads, Pipelines (see Map 14: <i>Transportation Accident Potential</i> and Map 17: <i>Pipelines and Transmission Lines</i> )   |
| Ice Storm  | Entire county  |
| Fire   | All structures are vulnerable. Most Vulnerable: High Density Development Areas, Large Industrial Facilities (See Map 16: <i>High Density Development Areas</i> )   |
| Flood  | 100 year flood zones (see Map 12: <i>Flood zones</i> )   |
| Hazmat (Fixed Site)                                | Industrial Properties, Agricultural Operations, Major Oil Storage Facilities, Petroleum Bulk Storage, Chemical Bulk Storage, Regulated Facilities, HAZMAT facilities (See Map 13: <i>Potential Hazard Zones</i> )  |
| Water Supply Contamination                         | Water Supply Facilities, Surface Water, Wetlands, Aquifers, Groundwater, (See Map 2: <i>Water Resources</i> )  |
| Transportation Accident                            | All roads, bridges, railroads, airports, and airstrips are vulnerable (See Map 14: <i>Transportation Accident Potential</i> )  |
| Earthquake   | Entire county; Magnitude 6.5 earthquakes are possible in the region  |
| Electrical Grid/Utility Failure                    | Entire county  |
| Epidemic   | Entire county  |
| Severe Winter Storm                                | Entire county  |
| Dam Failure  | Watercourses below dams (see Map 12: <i>Flood zone areas</i> )   |
| Severe Storms                                      | Entire county  |
| Ice Jam  | 100 year flood zones (See Map 12: <i>Flood zones</i> )   |
| Terrorism  | Entire county  |
| Drought  | All agricultural lands in the county   |
| Tornado  | Entire county  |
| Air Contamination                                  | Industrial Properties, Agricultural Operations, Major Oil Storage Facilities, Petroleum Bulk Storage, Chemical Bulk Storage, Regulated Facilities, HAZMAT facilities; any location within a 2 mile radius of these facilities (See Map 13: <i>Potential Hazard Zones</i> ) |
| Extreme Temperatures                               | Entire county  |
| Civil Unrest                                       | Civic and Institutional Facilities   |
| Landslide  | Areas with slopes greater than 25%; significant stream bank erosion sites (see Map 15: <i>Steep Slopes</i> )   |
| Wildfire   | Mucklands in the north, all agricultural lands in the county   |

Table 7.2 identifies the Genesee County municipalities that currently participate in the National Flood Insurance Program (NFIP). The NFIP, established in 1968, is a Federal program that enables property owners in member communities to purchase flood insurance. This insurance is only made available to municipalities that adopt and enforce a floodplain management ordinance. The fundamental goal of NFIP floodplain management requirements is to reduce the threat to lives and the potential for property damage in flood-prone areas.

Each municipality that participates in the NFIP typically has a Flood Insurance Rate Map (FIRM) that is issued by FEMA. This document maps out flood hazard areas in the municipality. The flood zones used by the Genesee County All-Hazard Mitigation Plan to determine the vulnerability of Critical Facilities and Community Assets to flooding are the areas identified by the FIRMs as Zone A areas, which are defined as “Areas of 100-year flood.” The vulnerability of specific facilities to flooding was determined

by using a GIS model to compare the flood zones with the locations of the Critical Facilities and Community Assets.

As the table indicates, all twenty-one municipalities in Genesee County currently participate in the NFIP and have FIRMs.

**Table 7.2: Genesee County National Flood Insurance Program (NFIP) Membership**

| <b>Municipality:</b> | <b>NFIP Member?</b> | <b>Date of Current Effective Flood Insurance Rate Map (FIRM)</b> |
|----------------------|---------------------|--|
| Town of Alabama      | Yes                 | 11/18/83   |
| Town of Alexander    | Yes                 | 05/04/87   |
| Village of Alexander | Yes                 | 05/04/87   |
| Village of Attica    | Yes                 | 07/03/86   |
| City of Batavia      | Yes                 | 09/16/82   |
| Town of Batavia      | Yes                 | 01/17/85   |
| Town of Bergen       | Yes                 | 07/06/84   |
| Village of Bergen    | Yes                 | 06/08/79   |
| Town of Bethany      | Yes                 | 09/24/84   |
| Town of Byron        | Yes                 | 02/01/88   |
| Village of Corfu     | Yes                 | 10/15/85   |
| Town of Darien       | Yes                 | 07/06/84   |
| Town of Elba         | Yes                 | 10/05/84   |
| Village of Elba      | Yes                 | 01/20/84   |
| Town of Le Roy       | Yes                 | 09/14/79   |
| Village of Le Roy    | Yes                 | 08/03/81   |
| Town of Oakfield     | Yes                 | 05/25/84   |
| Village of Oakfield  | Yes                 | 03/23/84   |
| Town of Pavilion     | Yes                 | 02/27/84   |
| Town of Pembroke     | Yes                 | 01/20/84   |
| Town of Stafford     | Yes                 | 07/16/82   |

**Source:** Federal Emergency Management Agency (FEMA), *Community Status Book Report*. Report Level: County.

**Subsection 7.2.D: Estimate Potential Losses**

G/FLRPC staff estimated potential financial losses by using municipal property assessments provided by the New York State Office of Real Property Services. Using the municipality’s most up to date assessed real property value, each critical facility and community asset was calculated at a 25%, 50% and 75% loss. Losses were calculated for all critical facilities and community assets impacted by severe weather events, including severe storms, severe winter storms, ice storms, tornadoes, and extreme temperatures; as well as earthquakes and floods.

These estimates do not consider functional or content loss. Furthermore, they do not consider the cost of repairing or replacing these structures should they be damaged or destroyed. Given the resources available for developing this plan, there was no practical way of determining the exact cost of repairing or rebuilding each of these facilities. However, the method used does provide an accurate indicator of the potential property tax revenue loss for the municipalities should a hazard event damage or destroy a community’s critical facilities and community assets.

**SECTION 7.3: RESULTS**

**Subsection 7.3.A: Critical Facilities and Community Assets**

The process of preparing an inventory of critical facilities and community assets yielded the following figures, shown in Tables 7.3 and 7.4, for each municipality. In all, there are 205 Critical Facilities and 144 Community Assets in Genesee County, for a total of 349 sites.

Tables 7.3 and 7.4 list the overall number of Critical Facilities and Community Assets in the county. These tables, like all subsequent tables in this chapter, are organized by municipality.

**Table 7.3: Critical Facilities in Genesee County By Municipality**

| <b>Municipality</b>     | <b>Essential Facilities</b> | <b>Transportation Systems</b> | <b>Lifeline Utility Systems</b> | <b>High Potential Loss Facilities</b> | <b>Hazardous Material Facilities</b> | <b>Grand Total</b> |
|-------------------------|-----------------------------|-------------------------------|---------------------------------|---------------------------------------|--------------------------------------|--------------------|
| Alabama                 | 5                           | 0                             | 0                               | 0                                     | 0                                    | 5                  |
| Alexander               | 1                           | 0                             | 1                               | 0                                     | 5                                    | 7                  |
| Alexander (Village)     | 3                           | 0                             | 3                               | 0                                     | 3                                    | 9                  |
| Batavia                 | 6                           | 1                             | 7                               | 1                                     | 5                                    | 20                 |
| Batavia (City)          | 20                          | 0                             | 9                               | 1                                     | 10                                   | 40                 |
| Bergen                  | 3                           | 0                             | 2                               | 0                                     | 0                                    | 5                  |
| Bergen (Village)        | 3                           | 0                             | 3                               | 0                                     | 1                                    | 7                  |
| Bethany                 | 2                           | 2                             | 1                               | 0                                     | 3                                    | 8                  |
| Byron                   | 4                           | 0                             | 6                               | 0                                     | 0                                    | 10                 |
| Darien                  | 2                           | 0                             | 10                              | 0                                     | 0                                    | 12                 |
| Elba                    | 1                           | 0                             | 4                               | 0                                     | 1                                    | 6                  |
| Elba (Village)          | 3                           | 0                             | 4                               | 0                                     | 0                                    | 7                  |
| Le Roy                  | 2                           | 2                             | 3                               | 0                                     | 1                                    | 8                  |
| Le Roy (Village)        | 4                           | 0                             | 5                               | 0                                     | 2                                    | 11                 |
| Oakfield                | 1                           | 0                             | 0                               | 0                                     | 1                                    | 2                  |
| Oakfield (Village)      | 2                           | 0                             | 3                               | 0                                     | 2                                    | 7                  |
| Pavilion                | 4                           | 0                             | 1                               | 0                                     | 3                                    | 8                  |
| Pembroke                | 7                           | 0                             | 3                               | 0                                     | 3                                    | 13                 |
| Corfu (Village)         | 3                           | 0                             | 6                               | 0                                     | 3                                    | 12                 |
| Stafford                | 4                           | 0                             | 1                               | 0                                     | 3                                    | 8                  |
| <b>Total Facilities</b> | <b>80</b>                   | <b>5</b>                      | <b>72</b>                       | <b>2</b>                              | <b>46</b>                            | <b>205</b>         |

**Table 7.4: Community Assets in Genesee County By Municipality**

| <b>Municipality</b> | <b>Vulnerable Populations</b> | <b>Economic Elements</b> | <b>Historic &amp; Cultural Resource Areas</b> | <b>Natural Resource &amp; Recreation Areas</b> | <b>Facilities Providing Important Services</b> | <b>Grand Total</b> |
|---------------------|-------------------------------|--------------------------|---|--|--|--------------------|
| Alabama             | 1                             | 1                        | 2   | 1  | 1  | 6                  |
| Alexander           | 0                             | 0                        | 1   | 2  | 0  | 3                  |
| Alexander (Village) | 1                             | 0                        | 3   | 0  | 1  | 5                  |
| Batavia             | 10                            | 0                        | 0   | 0  | 4  | 14                 |
| Batavia (City)      | 21                            | 0                        | 2   | 0  | 9  | 32                 |

|                         |           |          |           |           |           |            |
|-------------------------|-----------|----------|-----------|-----------|-----------|------------|
| Bergen                  | 4         | 0        | 0         | 0         | 0         | 4          |
| Bergen (Village)        | 0         | 0        | 0         | 1         | 3         | 4          |
| Bethany                 | 1         | 0        | 1         | 2         | 0         | 4          |
| Byron                   | 3         | 0        | 0         | 1         | 1         | 5          |
| Darien                  | 2         | 0        | 0         | 1         | 0         | 3          |
| Elba                    | 0         | 0        | 2         | 0         | 0         | 2          |
| Elba (Village)          | 0         | 0        | 4         | 1         | 1         | 6          |
| Le Roy                  | 4         | 0        | 2         | 2         | 0         | 8          |
| Le Roy (Village)        | 11        | 0        | 3         | 0         | 2         | 16         |
| Oakfield                | 1         | 0        | 0         | 0         | 1         | 2          |
| Oakfield (Village)      | 1         | 0        | 0         | 0         | 0         | 1          |
| Pavilion                | 1         | 0        | 0         | 0         | 1         | 2          |
| Pembroke                | 3         | 1        | 1         | 0         | 0         | 5          |
| Corfu (Village)         | 2         | 0        | 7         | 0         | 1         | 10         |
| Stafford                | 2         | 0        | 9         | 0         | 1         | 12         |
| <b>Total Facilities</b> | <b>68</b> | <b>2</b> | <b>37</b> | <b>11</b> | <b>26</b> | <b>144</b> |

**Subsection 7.3.B: Vulnerability Assessment**

The following tables describe the vulnerability of Genesee County’s critical facilities and community assets by indicating how many of these locations lie within specific hazard extents.

Not all hazards have mapped extents, because all inhabitants, facilities, and locations in the County are considered vulnerable to the following natural hazards:

- Weather-related events, including Severe Storms, Severe Winter Storms, Ice Storms, Tornadoes, and Extreme Temperatures.
- Water Supply Contamination/Air Contamination
- Earthquakes.

In addition, the geographic areas of lower ranked natural hazards such as landslides and wildfires are not mapped. These hazards are considered too remote to warrant detailed analysis in this plan because no critical facilities or community assets are directly threatened by them.

Tables 7.5 and 7.6 list the number of critical facilities and community assets affected by the Flooding and Ice Jam hazard extents (see Map 12, Flood Zone Areas).

**Table 7.5: Critical Facilities Affected by Flooding and Ice Jams in Genesee County By Municipality**

| Municipality        | Essential Facilities | Transportation Systems | Lifeline Utility Systems | High Potential Loss Facilities | Hazardous Material Facilities | Grand Total |
|---------------------|----------------------|------------------------|--------------------------|--------------------------------|-------------------------------|-------------|
| Alabama             | 0                    | 0                      | 0                        | 0                              | 0                             | 0           |
| Alexander           | 1                    | 0                      | 0                        | 0                              | 1                             | 2           |
| Alexander (Village) | 2                    | 0                      | 1                        | 0                              | 1                             | 4           |
| Batavia             | 2                    | 0                      | 2                        | 0                              | 1                             | 5           |

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|-------------------------|-----------|----------|-----------|----------|-----------|-----------|
| Batavia (City)          | 6         | 0        | 6         | 0        | 4         | 16        |
| Bergen                  | 0         | 0        | 1         | 0        | 0         | 1         |
| Bergen (Village)        | 1         | 0        | 2         | 0        | 0         | 3         |
| Bethany                 | 0         | 0        | 0         | 0        | 0         | 0         |
| Byron                   | 1         | 0        | 1         | 0        | 0         | 2         |
| Darien                  | 0         | 0        | 3         | 0        | 0         | 3         |
| Elba                    | 1         | 0        | 1         | 0        | 1         | 3         |
| Elba (Village)          | 0         | 0        | 1         | 0        | 0         | 1         |
| Le Roy                  | 1         | 0        | 2         | 0        | 0         | 3         |
| Le Roy (Village)        | 0         | 0        | 1         | 0        | 0         | 1         |
| Oakfield                | 0         | 0        | 0         | 0        | 0         | 0         |
| Oakfield (Village)      | 0         | 0        | 1         | 0        | 1         | 2         |
| Pavilion                | 2         | 0        | 0         | 0        | 0         | 2         |
| Pembroke                | 4         | 0        | 0         | 0        | 1         | 5         |
| Corfu (Village)         | 3         | 0        | 3         | 0        | 1         | 7         |
| Stafford                | 0         | 0        | 0         | 0        | 0         | 0         |
| <b>Total Facilities</b> | <b>24</b> | <b>0</b> | <b>25</b> | <b>0</b> | <b>11</b> | <b>60</b> |

**Table 7.6: Community Assets Affected by Flooding and Ice Jams in Genesee County By Municipality**

| <b>Municipality</b>     | <b>Vulnerable Populations</b> | <b>Economic Elements</b> | <b>Historic &amp; Cultural Resource Areas</b> | <b>Natural Resource &amp; Recreation Areas</b> | <b>Facilities Providing Important Services</b> | <b>Grand Total</b> |
|-------------------------|-------------------------------|--------------------------|---|--|--|--------------------|
| Alabama                 | 0                             | 0                        | 0   | 1  | 0  | 1                  |
| Alexander               | 0                             | 0                        | 0   | 1  | 0  | 1                  |
| Alexander (Village)     | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Batavia                 | 5                             | 0                        | 0   | 0  | 1  | 6                  |
| Batavia (City)          | 3                             | 0                        | 1   | 0  | 2  | 6                  |
| Bergen                  | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Bergen (Village)        | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Bethany                 | 0                             | 0                        | 0   | 1  | 0  | 1                  |
| Byron                   | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Darien                  | 2                             | 0                        | 0   | 1  | 0  | 3                  |
| Elba                    | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Elba (Village)          | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Le Roy                  | 1                             | 0                        | 0   | 1  | 0  | 2                  |
| Le Roy (Village)        | 1                             | 0                        | 0   | 0  | 1  | 2                  |
| Oakfield                | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Oakfield (Village)      | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Pavilion                | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Pembroke                | 3                             | 0                        | 0   | 0  | 0  | 3                  |
| Corfu (Village)         | 0                             | 0                        | 3   | 0  | 0  | 3                  |
| Stafford                | 0                             | 0                        | 1   | 0  | 0  | 1                  |
| <b>Total Facilities</b> | <b>15</b>                     | <b>0</b>                 | <b>5</b>                                      | <b>5</b>                                       | <b>4</b>                                       | <b>29</b>          |

Tables 7.7 and 7.8 list the number of Critical Facilities and Community Assets affected by the Hazardous Materials (In Transit) and Transportation Accident hazard extents (see Map 14, Transportation Accident Potential).

**Table 7.7: Critical Facilities Affected by HazMat (In-Transit) and Transportation Accident incidents in Genesee County By Municipality**

| Municipality            | Essential Facilities | Transportation Systems | Lifeline Utility Systems | High Potential Loss Facilities | Hazardous Material Facilities | Grand Total |
|-------------------------|----------------------|------------------------|--------------------------|--------------------------------|-------------------------------|-------------|
| Alabama                 | 4                    | 0                      | 0                        | 0                              | 0                             | 4           |
| Alexander               | 1                    | 0                      | 0                        | 0                              | 3                             | 4           |
| Alexander (Village)     | 1                    | 0                      | 2                        | 0                              | 1                             | 4           |
| Batavia                 | 4                    | 0                      | 4                        | 0                              | 1                             | 9           |
| Batavia (City)          | 5                    | 0                      | 3                        | 1                              | 6                             | 15          |
| Bergen                  | 2                    | 0                      | 2                        | 0                              | 0                             | 4           |
| Bergen (Village)        | 1                    | 0                      | 1                        | 0                              | 1                             | 3           |
| Bethany                 | 0                    | 0                      | 0                        | 0                              | 3                             | 3           |
| Byron                   | 3                    | 0                      | 4                        | 0                              | 0                             | 7           |
| Darien                  | 2                    | 0                      | 5                        | 0                              | 0                             | 7           |
| Elba                    | 1                    | 0                      | 0                        | 0                              | 0                             | 1           |
| Elba (Village)          | 2                    | 0                      | 2                        | 0                              | 0                             | 4           |
| Le Roy                  | 0                    | 0                      | 1                        | 0                              | 1                             | 2           |
| Le Roy (Village)        | 2                    | 0                      | 1                        | 0                              | 2                             | 5           |
| Oakfield                | 1                    | 0                      | 0                        | 0                              | 1                             | 2           |
| Oakfield (Village)      | 0                    | 0                      | 0                        | 0                              | 0                             | 0           |
| Pavilion                | 3                    | 0                      | 0                        | 0                              | 2                             | 5           |
| Pembroke                | 7                    | 0                      | 1                        | 0                              | 2                             | 10          |
| Corfu (Village)         | 2                    | 0                      | 3                        | 0                              | 1                             | 6           |
| Stafford                | 4                    | 0                      | 1                        | 0                              | 2                             | 7           |
| <b>Total Facilities</b> | <b>45</b>            | <b>0</b>               | <b>30</b>                | <b>1</b>                       | <b>26</b>                     | <b>102</b>  |

**Table 7.8: Community Assets Affected by HazMat (In-Transit) and Transportation Accident incidents in Genesee County By Municipality**

| Municipality        | Vulnerable Populations | Economic Elements | Historic & Cultural Resource Areas | Natural Resource & Recreation Areas | Facilities Providing Important Services | Grand Total |
|---------------------|------------------------|-------------------|------------------------------------|-------------------------------------|---|-------------|
| Alabama             | 0                      | 0                 | 2                                  | 1                                   | 1                                       | 4           |
| Alexander           | 0                      | 0                 | 0                                  | 0                                   | 0                                       | 0           |
| Alexander (Village) | 1                      | 0                 | 3                                  | 0                                   | 0                                       | 4           |
| Batavia             | 7                      | 0                 | 0                                  | 0                                   | 2                                       | 9           |
| Batavia (City)      | 7                      | 0                 | 1                                  | 0                                   | 8                                       | 16          |
| Bergen              | 3                      | 0                 | 0                                  | 0                                   | 0                                       | 3           |
| Bergen (Village)    | 0                      | 0                 | 0                                  | 1                                   | 2                                       | 3           |

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|-------------------------|-----------|----------|-----------|----------|-----------|-----------|
| Bethany                 | 0         | 0        | 0         | 0        | 0         | <b>0</b>  |
| Byron                   | 1         | 0        | 0         | 1        | 1         | <b>3</b>  |
| Darien                  | 2         | 0        | 0         | 0        | 1         | <b>3</b>  |
| Elba                    | 0         | 0        | 2         | 0        | 0         | <b>2</b>  |
| Elba (Village)          | 0         | 0        | 3         | 1        | 1         | <b>5</b>  |
| Le Roy                  | 1         | 0        | 2         | 0        | 0         | <b>3</b>  |
| Le Roy (Village)        | 8         | 0        | 3         | 0        | 1         | <b>12</b> |
| Oakfield                | 1         | 0        | 0         | 0        | 1         | <b>2</b>  |
| Oakfield (Village)      | 1         | 0        | 0         | 0        | 0         | <b>1</b>  |
| Pavilion                | 1         | 0        | 0         | 0        | 1         | <b>2</b>  |
| Pembroke                | 1         | 1        | 0         | 0        | 0         | <b>2</b>  |
| Corfu (Village)         | 2         | 0        | 6         | 0        | 1         | <b>9</b>  |
| Stafford                | 2         | 0        | 6         | 0        | 1         | <b>9</b>  |
| <b>Total Facilities</b> | <b>38</b> | <b>1</b> | <b>28</b> | <b>4</b> | <b>21</b> | <b>92</b> |

Tables 7.9 and 7.10 list the number of Critical Facilities and Community Assets affected by the Fire, HazMat (Fixed-Site), Air Contamination, and Explosion hazard extents (see Map 13: Potential Hazard Zones and Map 17: Pipelines and Transmission Lines).

**Table 7.9: Critical Facilities Affected by Fire, HazMat (Fixed-Site), Air Contamination, and Explosion incidents in Genesee County By Municipality**

| <b>Municipality</b> | <b>Essential Facilities</b> | <b>Transportation Systems</b> | <b>Lifeline Utility Systems</b> | <b>High Potential Loss Facilities</b> | <b>Hazardous Material Facilities</b> | <b>Grand Total</b> |
|---------------------|-----------------------------|-------------------------------|---------------------------------|---------------------------------------|--------------------------------------|--------------------|
| Alabama             | 0                           | 0                             | 0                               | 0                                     | 0                                    | <b>0</b>           |
| Alexander           | 1                           | 0                             | 0                               | 0                                     | 5                                    | <b>6</b>           |
| Alexander (Village) | 3                           | 0                             | 3                               | 0                                     | 3                                    | <b>9</b>           |
| Batavia             | 4                           | 1                             | 7                               | 1                                     | 5                                    | <b>18</b>          |
| Batavia (City)      | 19                          | 0                             | 9                               | 1                                     | 10                                   | <b>39</b>          |
| Bergen              | 0                           | 0                             | 2                               | 0                                     | 0                                    | <b>2</b>           |
| Bergen (Village)    | 3                           | 0                             | 3                               | 0                                     | 1                                    | <b>7</b>           |
| Bethany             | 0                           | 0                             | 0                               | 0                                     | 3                                    | <b>3</b>           |
| Byron               | 0                           | 0                             | 0                               | 0                                     | 0                                    | <b>0</b>           |
| Darien              | 0                           | 0                             | 0                               | 0                                     | 0                                    | <b>0</b>           |
| Elba                | 0                           | 0                             | 1                               | 0                                     | 1                                    | <b>2</b>           |
| Elba (Village)      | 0                           | 0                             | 0                               | 0                                     | 0                                    | <b>0</b>           |
| Le Roy              | 0                           | 0                             | 1                               | 0                                     | 1                                    | <b>2</b>           |
| Le Roy (Village)    | 3                           | 0                             | 4                               | 0                                     | 2                                    | <b>9</b>           |
| Oakfield            | 1                           | 0                             | 0                               | 0                                     | 1                                    | <b>2</b>           |
| Oakfield (Village)  | 2                           | 0                             | 3                               | 0                                     | 2                                    | <b>7</b>           |
| Pavilion            | 4                           | 0                             | 1                               | 0                                     | 3                                    | <b>8</b>           |
| Pembroke            | 3                           | 0                             | 0                               | 0                                     | 3                                    | <b>6</b>           |
| Corfu (Village)     | 3                           | 0                             | 6                               | 0                                     | 3                                    | <b>12</b>          |

|                         |           |          |           |          |           |            |
|-------------------------|-----------|----------|-----------|----------|-----------|------------|
| Stafford                | 4         | 0        | 1         | 0        | 3         | 8          |
| <b>Total Facilities</b> | <b>50</b> | <b>1</b> | <b>41</b> | <b>2</b> | <b>46</b> | <b>140</b> |

**Table 7.10: Community Assets Affected by Fire, HazMat (Fixed-Site), Air Contamination, and Explosion incidents in Genesee County By Municipality**

| <b>Municipality</b>     | <b>Vulnerable Populations</b> | <b>Economic Elements</b> | <b>Historic &amp; Cultural Resource Areas</b> | <b>Natural Resource &amp; Recreation Areas</b> | <b>Facilities Providing Important Services</b> | <b>Grand Total</b> |
|-------------------------|-------------------------------|--------------------------|---|--|--|--------------------|
| Alabama                 | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Alexander               | 0                             | 0                        | 0   | 1  | 0  | 1                  |
| Alexander (Village)     | 1                             | 0                        | 3   | 0  | 1  | 5                  |
| Batavia                 | 7                             | 0                        | 0   | 0  | 3  | 10                 |
| Batavia (City)          | 20                            | 0                        | 2   | 0  | 9  | 31                 |
| Bergen                  | 1                             | 0                        | 0   | 0  | 0  | 1                  |
| Bergen (Village)        | 0                             | 0                        | 0   | 1  | 3  | 4                  |
| Bethany                 | 1                             | 0                        | 0   | 0  | 0  | 1                  |
| Byron                   | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Darien                  | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Elba                    | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Elba (Village)          | 0                             | 0                        | 0   | 0  | 0  | 0                  |
| Le Roy                  | 0                             | 0                        | 1   | 0  | 0  | 1                  |
| Le Roy (Village)        | 8                             | 0                        | 3   | 0  | 2  | 13                 |
| Oakfield                | 1                             | 0                        | 0   | 0  | 1  | 2                  |
| Oakfield (Village)      | 1                             | 0                        | 0   | 0  | 0  | 1                  |
| Pavilion                | 0                             | 0                        | 0   | 0  | 1  | 1                  |
| Pembroke                | 1                             | 1                        | 0   | 0  | 0  | 2                  |
| Corfu (Village)         | 2                             | 0                        | 7   | 0  | 1  | 10                 |
| Stafford                | 2                             | 0                        | 5   | 0  | 1  | 8                  |
| <b>Total Facilities</b> | <b>45</b>                     | <b>1</b>                 | <b>21</b>                                     | <b>2</b>                                       | <b>22</b>                                      | <b>91</b>          |

### Subsection 7.3.C: Estimated Losses

Thus far, the Genesee County All-Hazard Mitigation Plan has profiled past hazard events, inventoried critical facilities and community assets, and determined the vulnerability of these critical facilities and community assets to potential hazard events. Subsection 7.3.C provides estimates of the financial losses that could occur from these hazards. The following tables are designed to provide a general understanding of the potential financial losses for each municipality within the County.

Estimated losses were determined for highly ranked natural hazards (severe weather events, which include severe storms, severe winter storms, ice storms, tornadoes, extreme temperatures; earthquakes; and floods) only. Lower ranked natural hazards were not deemed dangerous enough to compute potential losses. In addition, because the focus of this plan is on the highly ranked natural hazards, potential losses for man-made and technological hazards were not determined.

Potential property damage losses caused by each hazard are based on the current assessed value of the inventoried properties. A brief review of the criteria used to classify Genesee County facilities precedes the table. Several critical facilities or community assets did not have an assessed value assigned to it, and therefore not all facilities could be included in the estimated losses tables.

**Review of Criteria for Classifying Critical Facilities and Community Assets**

- Essential Facilities (*i.e. hospitals, police/fire stations, schools, evacuation shelters*)
- Transportation Systems (*i.e. airports, highways, railways, waterways, bridges, tunnels*)
- Lifeline Utility Systems (*i.e. facilities for potable water, wastewater, oil, gas, electric*)
- High Potential Loss Facilities (*i.e. prisons, dams*)
- Hazardous Material Facilities (*i.e. facilities housing industrial or hazardous materials*)
- Vulnerable Populations (*i.e. senior citizen complexes, group homes, or mobile home parks*)
- Economic Elements (*i.e. major employers and financial centers*)
- Historic and Cultural Resource Areas (*i.e. historic properties, cultural facilities*)
- Natural Resource and Recreation Areas (*i.e. water bodies, wetlands, parks, forests*)
- Facilities Providing Important Services (*i.e. government buildings*)

| <b>Alabama, Town – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>  | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities  | \$2,806,325        | \$2,104,744     | \$1,403,163     | \$701,581       |
| Transportation Systems  | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems  | \$0                | \$0             | \$0             | \$0             |
| High Potential Loss Facilities  | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities  | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations  | \$1,214,300        | \$910,725       | \$607,150       | \$303,575       |
| Economic Elements   | \$2,340            | \$1,755         | \$1,170         | \$585           |
| Historic & Cultural Resources   | \$591,700          | \$443,775       | \$295,850       | \$147,925       |
| Natural Resource & Recreation   | \$103,240          | \$77,430        | \$51,620        | \$25,810        |
| Important Services  | \$37,500           | \$28,125        | \$18,750        | \$9,375         |

| <b>Alabama, Town – Flood Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                          | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                          | \$0                | \$0             | \$0             | \$0             |
| Transportation Systems                        | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                      | \$0                | \$0             | \$0             | \$0             |
| High Potential Loss Facilities                | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations                        | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                             | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                 | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                 | \$103,240          | \$77,430        | \$51,620        | \$25,810        |
| Important Services                            | \$0                | \$0             | \$0             | \$0             |

| <b>Alexander, Town – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>  | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities  | \$0                | \$0             | \$0             | \$0             |
| Transportation Systems  | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems  | \$102,000          | \$76,500        | \$51,000        | \$25,500        |
| High Potential Loss Facilities  | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities  | \$670,400          | \$502,800       | \$335,200       | \$167,600       |
| Vulnerable Populations  | \$0                | \$0             | \$0             | \$0             |
| Economic Elements   | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources   | \$46,200           | \$34,650        | \$23,100        | \$11,550        |
| Natural Resource & Recreation   | \$291,800          | \$218,850       | \$145,900       | \$72,950        |
| Important Services  | \$0                | \$0             | \$0             | \$0             |

| <b>Alexander, Town – Flood Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                            | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                            | \$0                | \$0             | \$0             | \$0             |
| Transportation Systems                          | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                        | \$0                | \$0             | \$0             | \$0             |
| High Potential Loss Facilities                  | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                  | \$164,800          | \$123,600       | \$82,400        | \$41,200        |
| Vulnerable Populations                          | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                               | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                   | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                   | \$15,800           | \$11,850        | \$7,900         | \$3,950         |
| Important Services                              | \$0                | \$0             | \$0             | \$0             |

| <b>Alexander, Village – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>   | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities   | \$8,749,200        | \$6,561,900     | \$4,374,600     | \$2,187,300     |
| Transportation Systems   | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems   | \$176,700          | \$132,525       | \$88,350        | \$44,175        |
| High Potential Loss Facilities   | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities   | \$1,311,400        | \$983,550       | \$655,700       | \$327,850       |
| Vulnerable Populations   | \$158,700          | \$119,025       | \$79,350        | \$39,675        |
| Economic Elements  | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources  | \$401,400          | \$301,050       | \$200,700       | \$100,350       |
| Natural Resource & Recreation  | \$0                | \$0             | \$0             | \$0             |
| Important Services   | \$324,500          | \$243,375       | \$162,250       | \$81,125        |

| <b>Alexander, Village – Flood Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                               | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                               | \$133,900          | \$100,425       | \$66,950        | \$33,475        |
| Transportation Systems                             | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                           | \$24,800           | \$18,600        | \$12,400        | \$6,200         |
| High Potential Loss Facilities                     | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                     | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations                             | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                                  | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                      | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                      | \$0                | \$0             | \$0             | \$0             |
| Important Services                                 | \$0                | \$0             | \$0             | \$0             |

| <b>Batavia, City – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>  | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities  | \$36,789,600       | \$27,592,200    | \$18,394,800    | \$9,197,400     |
| Transportation Systems  | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems  | \$13,442,684       | \$10,082,013    | \$6,721,342     | \$3,360,671     |
| High Potential Loss Facilities  | \$825,000          | \$618,750       | \$412,500       | \$206,250       |
| Hazardous Materials Facilities  | \$9,395,000        | \$7,046,250     | \$4,697,500     | \$2,348,750     |
| Vulnerable Populations  | \$45,127,000       | \$33,845,250    | \$22,563,500    | \$11,281,750    |
| Economic Elements   | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources   | \$657,000          | \$492,750       | \$328,500       | \$164,250       |
| Natural Resource & Recreation   | \$0                | \$0             | \$0             | \$0             |
| Important Services  | \$15,206,400       | \$11,404,800    | \$7,603,200     | \$3,801,600     |

| <b>Batavia, City – Flood Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                          | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                          | \$6,208,600        | \$4,656,450     | \$3,104,300     | \$1,552,150     |
| Transportation Systems                        | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                      | \$3,847,284        | \$2,885,463     | \$1,923,642     | \$961,821       |
| High Potential Loss Facilities                | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                | \$7,165,000        | \$5,373,750     | \$3,582,500     | \$1,791,250     |
| Vulnerable Populations                        | \$1,220,700        | \$915,525       | \$610,350       | \$305,175       |
| Economic Elements                             | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                 | \$295,000          | \$221,250       | \$147,500       | \$73,750        |
| Natural Resource & Recreation                 | \$0                | \$0             | \$0             | \$0             |
| Important Services                            | \$10,185,300       | \$7,638,975     | \$5,092,650     | \$2,546,325     |

| <b>Batavia, Town – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>  | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities  | \$5,925,000        | \$4,443,750     | \$2,962,500     | \$1,481,250     |
| Transportation Systems  | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems  | \$2,261,000        | \$1,695,750     | \$1,130,500     | \$565,250       |
| High Potential Loss Facilities  | \$20,000,000       | \$15,000,000    | \$10,000,000    | \$5,000,000     |
| Hazardous Materials Facilities  | \$2,198,500        | \$1,648,875     | \$1,099,250     | \$549,625       |
| Vulnerable Populations  | \$10,520,325       | \$7,890,244     | \$5,260,163     | \$2,630,081     |
| Economic Elements   | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources   | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation   | \$0                | \$0             | \$0             | \$0             |
| Important Services  | \$24,925,900       | \$18,694,425    | \$12,462,950    | \$6,231,475     |

| <b>Batavia, Town – Flood Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                          | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                          | \$495,000          | \$371,250       | \$247,500       | \$123,750       |
| Transportation Systems                        | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                      | \$266,000          | \$199,500       | \$133,000       | \$66,500        |
| High Potential Loss Facilities                | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                | \$50,000           | \$37,500        | \$25,000        | \$12,500        |
| Vulnerable Populations                        | \$1,860,400        | \$1,395,300     | \$930,200       | \$465,100       |
| Economic Elements                             | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                 | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                 | \$0                | \$0             | \$0             | \$0             |
| Important Services                            | \$6,223,900        | \$4,667,925     | \$3,111,950     | \$1,555,975     |

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| <b>Bergen, Town – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>   | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities   | \$11,279,300       | \$8,459,475     | \$5,639,650     | \$2,819,825     |
| Transportation Systems   | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems   | \$1,307,600        | \$980,700       | \$653,800       | \$326,900       |
| High Potential Loss Facilities                                       | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                                       | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations   | \$3,239,900        | \$2,429,925     | \$1,619,950     | \$809,975       |
| Economic Elements  | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources  | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation  | \$0                | \$0             | \$0             | \$0             |
| Important Services   | \$0                | \$0             | \$0             | \$0             |

| <b>Bergen, Town – Flood Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                         | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                         | \$0                | \$0             | \$0             | \$0             |
| Transportation Systems                       | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                     | \$116,000          | \$87,000        | \$58,000        | \$29,000        |
| High Potential Loss Facilities               | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities               | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations                       | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                            | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                | \$0                | \$0             | \$0             | \$0             |
| Important Services                           | \$0                | \$0             | \$0             | \$0             |

| <b>Bergen, Village – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>  | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities  | \$230,900          | \$173,175       | \$115,450       | \$57,725        |
| Transportation Systems  | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems  | \$493,400          | \$370,050       | \$246,700       | \$123,350       |
| High Potential Loss Facilities  | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities  | \$2,035,200        | \$1,526,400     | \$1,017,600     | \$508,800       |
| Vulnerable Populations  | \$0                | \$0             | \$0             | \$0             |
| Economic Elements   | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources   | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation   | \$75,000           | \$56,250        | \$37,500        | \$18,750        |
| Important Services  | \$597,100          | \$447,825       | \$298,550       | \$149,275       |

| <b>Bergen, Village – Flood Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                            | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                            | \$90,000           | \$67,500        | \$45,000        | \$22,500        |
| Transportation Systems                          | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                        | \$493,400          | \$370,050       | \$246,700       | \$123,350       |
| High Potential Loss Facilities                  | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                  | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations                          | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                               | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                   | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                   | \$0                | \$0             | \$0             | \$0             |
| Important Services                              | \$0                | \$0             | \$0             | \$0             |

| <b>Bethany, Town – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>  | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities  | \$125,000          | \$93,750        | \$62,500        | \$31,250        |
| Transportation Systems  | \$163,900          | \$122,925       | \$81,950        | \$40,975        |
| Lifeline Utility Systems  | \$93,715           | \$70,286        | \$46,858        | \$23,429        |
| High Potential Loss Facilities  | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities  | \$146,000          | \$109,500       | \$73,000        | \$36,500        |
| Vulnerable Populations  | \$180,000          | \$135,000       | \$90,000        | \$45,000        |
| Economic Elements   | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources   | \$175,000          | \$131,250       | \$87,500        | \$43,750        |
| Natural Resource & Recreation   | \$757,000          | \$567,750       | \$378,500       | \$189,250       |
| Important Services  | \$0                | \$0             | \$0             | \$0             |

| <b>Bethany, Town – Flood Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                          | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                          | \$0                | \$0             | \$0             | \$0             |
| Transportation Systems                        | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                      | \$0                | \$0             | \$0             | \$0             |
| High Potential Loss Facilities                | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations                        | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                             | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                 | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                 | \$450,000          | \$337,500       | \$225,000       | \$112,500       |
| Important Services                            | \$0                | \$0             | \$0             | \$0             |

| <b>Byron, Town – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>  | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities  | \$830,400          | \$622,800       | \$415,200       | \$207,600       |
| Transportation Systems  | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems  | \$194,522          | \$145,892       | \$97,261        | \$48,631        |
| High Potential Loss Facilities                                      | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                                      | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations  | \$1,014,100        | \$760,575       | \$507,050       | \$253,525       |
| Economic Elements   | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                                       | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                                       | \$230,000          | \$172,500       | \$115,000       | \$57,500        |
| Important Services  | \$32,400           | \$24,300        | \$16,200        | \$8,100         |

| <b>Byron, Town – Flood Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                        | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                        | \$300,000          | \$225,000       | \$150,000       | \$75,000        |
| Transportation Systems                      | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                    | \$14,300           | \$10,725        | \$7,150         | \$3,575         |
| High Potential Loss Facilities              | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities              | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations                      | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                           | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources               | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation               | \$0                | \$0             | \$0             | \$0             |
| Important Services                          | \$0                | \$0             | \$0             | \$0             |

| <b>Corfu, Village – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>   | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities   | \$2,900,000        | \$2,175,000     | \$1,450,000     | \$725,000       |
| Transportation Systems   | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems   | \$608,426          | \$456,320       | \$304,213       | \$152,107       |
| High Potential Loss Facilities   | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities   | \$210,500          | \$157,875       | \$105,250       | \$52,625        |
| Vulnerable Populations   | \$1,392,000        | \$1,044,000     | \$696,000       | \$348,000       |
| Economic Elements  | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources  | \$715,700          | \$536,775       | \$357,850       | \$178,925       |
| Natural Resource & Recreation  | \$0                | \$0             | \$0             | \$0             |
| Important Services   | \$302,000          | \$226,500       | \$151,000       | \$75,500        |

| <b>Corfu, Village – Flood Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                           | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                           | \$2,900,000        | \$2,175,000     | \$1,450,000     | \$725,000       |
| Transportation Systems                         | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                       | \$293,254          | \$219,941       | \$146,627       | \$73,314        |
| High Potential Loss Facilities                 | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                 | \$70,000           | \$52,500        | \$35,000        | \$17,500        |
| Vulnerable Populations                         | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                              | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                  | \$460,000          | \$345,000       | \$230,000       | \$115,000       |
| Natural Resource & Recreation                  | \$0                | \$0             | \$0             | \$0             |
| Important Services                             | \$0                | \$0             | \$0             | \$0             |

| <b>Darien, Town – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>   | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities   | \$1,283,500        | \$962,625       | \$641,750       | \$320,875       |
| Transportation Systems   | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems   | \$2,578,392        | \$1,933,794     | \$1,289,196     | \$644,598       |
| High Potential Loss Facilities                                       | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                                       | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations   | \$247,400          | \$185,550       | \$123,700       | \$61,850        |
| Economic Elements  | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources  | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation  | \$0                | \$0             | \$0             | \$0             |
| Important Services   | \$0                | \$0             | \$0             | \$0             |

| <b>Darien, Town – Flood Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                         | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                         | \$300,000          | \$225,000       | \$150,000       | \$75,000        |
| Transportation Systems                       | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                     | \$2,095,758        | \$1,571,819     | \$1,047,879     | \$523,940       |
| High Potential Loss Facilities               | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities               | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations                       | \$247,400          | \$185,550       | \$123,700       | \$61,850        |
| Economic Elements                            | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                | \$450,000          | \$337,500       | \$225,000       | \$112,500       |
| Important Services                           | \$0                | \$0             | \$0             | \$0             |

| <b>Elba, Town – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>   | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities   | \$408,400          | \$306,300       | \$204,200       | \$102,100       |
| Transportation Systems   | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems   | \$96,100           | \$72,075        | \$48,050        | \$24,025        |
| High Potential Loss Facilities                                     | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                                     | \$114,100          | \$85,575        | \$57,050        | \$28,525        |
| Vulnerable Populations   | \$0                | \$0             | \$0             | \$0             |
| Economic Elements  | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                                      | \$179,100          | \$134,325       | \$89,550        | \$44,775        |
| Natural Resource & Recreation                                      | \$0                | \$0             | \$0             | \$0             |
| Important Services   | \$0                | \$0             | \$0             | \$0             |

| <b>Elba, Town – Flood Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                       | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                       | \$408,400          | \$306,300       | \$204,200       | \$102,100       |
| Transportation Systems                     | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                   | \$30,300           | \$22,725        | \$15,150        | \$7,575         |
| High Potential Loss Facilities             | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities             | \$114,100          | \$85,575        | \$57,050        | \$28,525        |
| Vulnerable Populations                     | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                          | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources              | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation              | \$0                | \$0             | \$0             | \$0             |
| Important Services                         | \$0                | \$0             | \$0             | \$0             |

| <b>Elba, Village – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>  | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities  | \$56,814,000       | \$42,610,500    | \$28,407,000    | \$14,203,500    |
| Transportation Systems  | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems  | \$660,700          | \$495,525       | \$330,350       | \$165,175       |
| High Potential Loss Facilities  | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities  | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations  | \$0                | \$0             | \$0             | \$0             |
| Economic Elements   | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources   | \$452,600          | \$339,450       | \$226,300       | \$113,150       |
| Natural Resource & Recreation   | \$193,800          | \$145,350       | \$96,900        | \$48,450        |
| Important Services  | \$70,000           | \$52,500        | \$35,000        | \$17,500        |

| <b>Elba, Village – Flood Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                          | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                          | \$0                | \$0             | \$0             | \$0             |
| Transportation Systems                        | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                      | \$426,100          | \$319,575       | \$213,050       | \$106,525       |
| High Potential Loss Facilities                | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations                        | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                             | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                 | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                 | \$0                | \$0             | \$0             | \$0             |
| Important Services                            | \$0                | \$0             | \$0             | \$0             |

| <b>Le Roy, Town – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>   | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities   | \$67,000           | \$50,250        | \$33,500        | \$16,750        |
| Transportation Systems   | \$346,000          | \$259,500       | \$173,000       | \$86,500        |
| Lifeline Utility Systems   | \$3,509,064        | \$2,631,798     | \$1,754,532     | \$877,266       |
| High Potential Loss Facilities                                       | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                                       | \$590,000          | \$442,500       | \$295,000       | \$147,500       |
| Vulnerable Populations   | \$1,896,300        | \$1,422,225     | \$948,150       | \$474,075       |
| Economic Elements  | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources  | \$300,000          | \$225,000       | \$150,000       | \$75,000        |
| Natural Resource & Recreation  | \$252,000          | \$189,000       | \$126,000       | \$63,000        |
| Important Services   | \$0                | \$0             | \$0             | \$0             |

| <b>Le Roy, Town – Flood Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                         | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                         | \$7,000            | \$5,250         | \$3,500         | \$1,750         |
| Transportation Systems                       | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                     | \$3,509,064        | \$2,631,798     | \$1,754,532     | \$877,266       |
| High Potential Loss Facilities               | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities               | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations                       | \$715,800          | \$536,850       | \$357,900       | \$178,950       |
| Economic Elements                            | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                | \$225,000          | \$168,750       | \$112,500       | \$56,250        |
| Important Services                           | \$0                | \$0             | \$0             | \$0             |

| <b>Le Roy, Village – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>  | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities  | \$9,816,900        | \$7,362,675     | \$4,908,450     | \$2,454,225     |
| Transportation Systems  | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems  | \$557,600          | \$418,200       | \$278,800       | \$139,400       |
| High Potential Loss Facilities  | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities  | \$3,250,000        | \$2,437,500     | \$1,625,000     | \$812,500       |
| Vulnerable Populations  | \$9,944,800        | \$7,458,600     | \$4,972,400     | \$2,486,200     |
| Economic Elements   | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources   | \$497,000          | \$372,750       | \$248,500       | \$124,250       |
| Natural Resource & Recreation   | \$0                | \$0             | \$0             | \$0             |
| Important Services  | \$689,000          | \$516,750       | \$344,500       | \$172,250       |

| <b>Le Roy, Village – Flood Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                            | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                            | \$0                | \$0             | \$0             | \$0             |
| Transportation Systems                          | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                        | \$45,100           | \$33,825        | \$22,550        | \$11,275        |
| High Potential Loss Facilities                  | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                  | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations                          | \$2,240,000        | \$1,680,000     | \$1,120,000     | \$560,000       |
| Economic Elements                               | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                   | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                   | \$0                | \$0             | \$0             | \$0             |
| Important Services                              | \$289,000          | \$216,750       | \$144,500       | \$72,250        |

| <b>Oakfield, Town – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>   | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities   | \$16,808,000       | \$12,606,000    | \$8,404,000     | \$4,202,000     |
| Transportation Systems   | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems   | \$0                | \$0             | \$0             | \$0             |
| High Potential Loss Facilities   | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities   | \$752,000          | \$564,000       | \$376,000       | \$188,000       |
| Vulnerable Populations   | \$588,300          | \$441,225       | \$294,150       | \$147,075       |
| Economic Elements  | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources  | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation  | \$0                | \$0             | \$0             | \$0             |
| Important Services   | \$295,000          | \$221,250       | \$147,500       | \$73,750        |

| <b>Oakfield, Town – Flood Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                           | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                           | \$0                | \$0             | \$0             | \$0             |
| Transportation Systems                         | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                       | \$0                | \$0             | \$0             | \$0             |
| High Potential Loss Facilities                 | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                 | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations                         | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                              | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                  | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                  | \$0                | \$0             | \$0             | \$0             |
| Important Services                             | \$0                | \$0             | \$0             | \$0             |

| <b>Oakfield, Village – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>  | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities  | \$350,000          | \$262,500       | \$175,000       | \$87,500        |
| Transportation Systems  | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems  | \$692,400          | \$519,300       | \$346,200       | \$173,100       |
| High Potential Loss Facilities  | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities  | \$2,208,000        | \$1,656,000     | \$1,104,000     | \$552,000       |
| Vulnerable Populations  | \$365,000          | \$273,750       | \$182,500       | \$91,250        |
| Economic Elements   | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources   | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation   | \$0                | \$0             | \$0             | \$0             |
| Important Services  | \$0                | \$0             | \$0             | \$0             |

| <b>Oakfield, Village – Flood Damage Estimates</b> |                    |                 |                 |                 |
|---|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                              | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                              | \$0                | \$0             | \$0             | \$0             |
| Transportation Systems                            | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                          | \$500,000          | \$375,000       | \$250,000       | \$125,000       |
| High Potential Loss Facilities                    | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                    | \$2,030,000        | \$1,522,500     | \$1,015,000     | \$507,500       |
| Vulnerable Populations                            | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                                 | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                     | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                     | \$0                | \$0             | \$0             | \$0             |
| Important Services                                | \$0                | \$0             | \$0             | \$0             |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

| <b>Pavilion, Town – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>   | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities   | \$8,706,600        | \$6,529,950     | \$4,353,300     | \$2,176,650     |
| Transportation Systems   | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems   | \$52,095           | \$39,071        | \$26,048        | \$13,024        |
| High Potential Loss Facilities   | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities   | \$459,700          | \$344,775       | \$229,850       | \$114,925       |
| Vulnerable Populations   | \$498,000          | \$373,500       | \$249,000       | \$124,500       |
| Economic Elements  | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources  | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation  | \$0                | \$0             | \$0             | \$0             |
| Important Services   | \$13,900,000       | \$10,425,000    | \$6,950,000     | \$3,475,000     |

| <b>Pavilion, Town – Flood Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                           | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                           | \$669,300          | \$501,975       | \$334,650       | \$167,325       |
| Transportation Systems                         | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                       | \$0                | \$0             | \$0             | \$0             |
| High Potential Loss Facilities                 | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                 | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations                         | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                              | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                  | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                  | \$0                | \$0             | \$0             | \$0             |
| Important Services                             | \$0                | \$0             | \$0             | \$0             |

| <b>Pembroke, Town – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>   | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities   | \$13,488,000       | \$10,116,000    | \$6,744,000     | \$3,372,000     |
| Transportation Systems   | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems   | \$1,159,433        | \$869,575       | \$579,717       | \$289,858       |
| High Potential Loss Facilities   | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities   | \$3,781,895        | \$2,836,421     | \$1,890,948     | \$945,474       |
| Vulnerable Populations   | \$346,800          | \$260,100       | \$173,400       | \$86,700        |
| Economic Elements  | \$400,000          | \$300,000       | \$200,000       | \$100,000       |
| Historic & Cultural Resources  | \$112,000          | \$84,000        | \$56,000        | \$28,000        |
| Natural Resource & Recreation  | \$0                | \$0             | \$0             | \$0             |
| Important Services   | \$0                | \$0             | \$0             | \$0             |

| <b>Pembroke, Town – Flood Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                           | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                           | \$21,000,000       | \$15,750,000    | \$10,500,000    | \$5,250,000     |
| Transportation Systems                         | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                       | \$0                | \$0             | \$0             | \$0             |
| High Potential Loss Facilities                 | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                 | \$332,655          | \$249,491       | \$166,328       | \$83,164        |
| Vulnerable Populations                         | \$346,800          | \$260,100       | \$173,400       | \$86,700        |
| Economic Elements                              | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                  | \$0                | \$0             | \$0             | \$0             |
| Natural Resource & Recreation                  | \$0                | \$0             | \$0             | \$0             |
| Important Services                             | \$0                | \$0             | \$0             | \$0             |

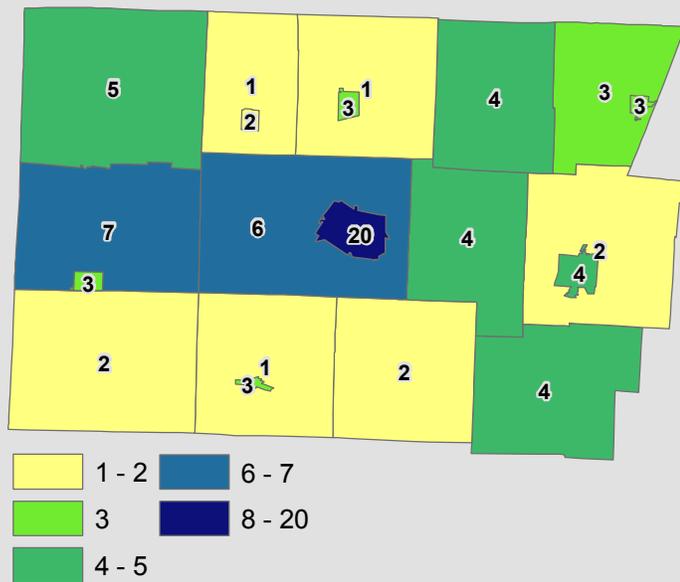
Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

| <b>Stafford, Town – Severe Weather and Earthquake Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>   | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities   | \$684,600          | \$513,450       | \$342,300       | \$171,150       |
| Transportation Systems   | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems   | \$4,069,174        | \$3,051,881     | \$2,034,587     | \$1,017,294     |
| High Potential Loss Facilities   | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities   | \$285,200          | \$213,900       | \$142,600       | \$71,300        |
| Vulnerable Populations   | \$167,200          | \$125,400       | \$83,600        | \$41,800        |
| Economic Elements  | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources  | \$3,568,600        | \$2,676,450     | \$1,784,300     | \$892,150       |
| Natural Resource & Recreation  | \$0                | \$0             | \$0             | \$0             |
| Important Services   | \$0                | \$0             | \$0             | \$0             |

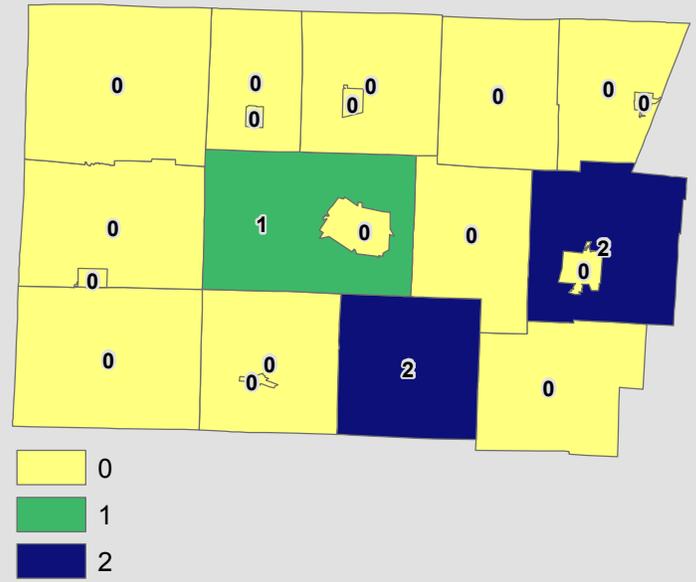
| <b>Stafford, Town – Flood Damage Estimates</b> |                    |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|
| <i>Facility Type</i>                           | <i>Total Value</i> | <i>75% Loss</i> | <i>50% Loss</i> | <i>25% Loss</i> |
| Essential Facilities                           | \$0                | \$0             | \$0             | \$0             |
| Transportation Systems                         | \$0                | \$0             | \$0             | \$0             |
| Lifeline Utility Systems                       | \$0                | \$0             | \$0             | \$0             |
| High Potential Loss Facilities                 | \$0                | \$0             | \$0             | \$0             |
| Hazardous Materials Facilities                 | \$0                | \$0             | \$0             | \$0             |
| Vulnerable Populations                         | \$0                | \$0             | \$0             | \$0             |
| Economic Elements                              | \$0                | \$0             | \$0             | \$0             |
| Historic & Cultural Resources                  | \$75,000           | \$56,250        | \$37,500        | \$18,750        |
| Natural Resource & Recreation                  | \$0                | \$0             | \$0             | \$0             |
| Important Services                             | \$0                | \$0             | \$0             | \$0             |

Map 10

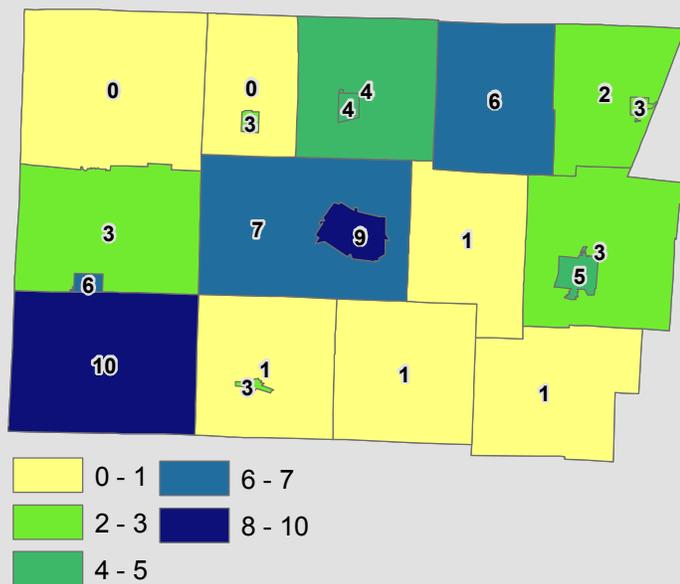
Essential Facilities



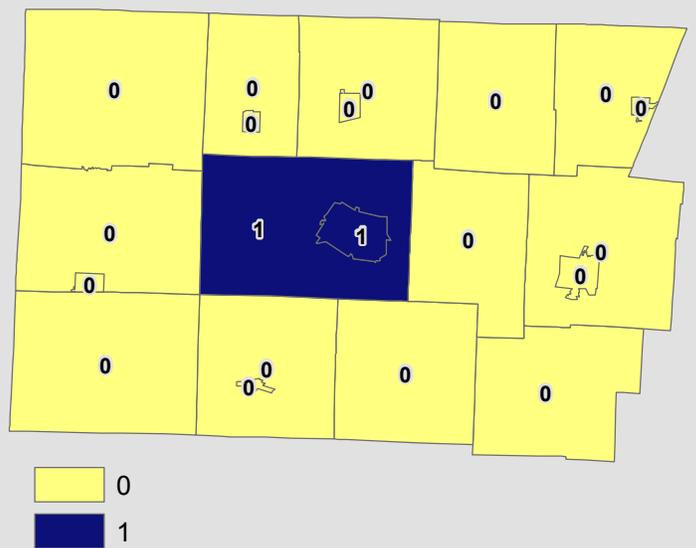
Transportation Systems



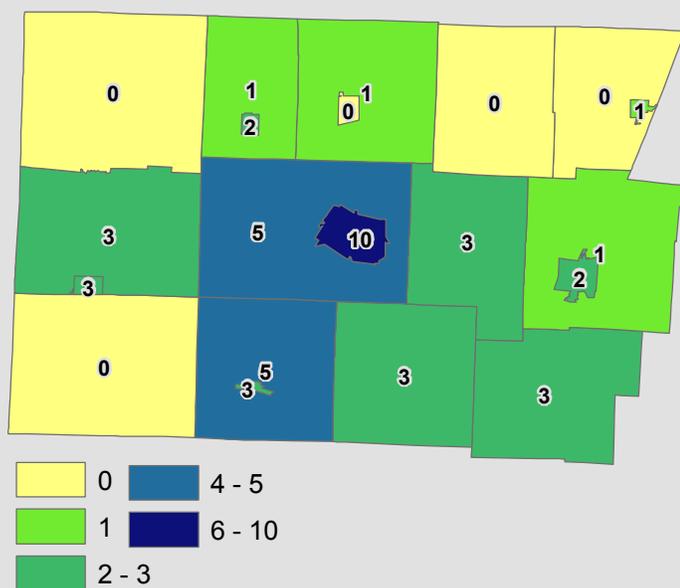
Lifeline Utility Systems



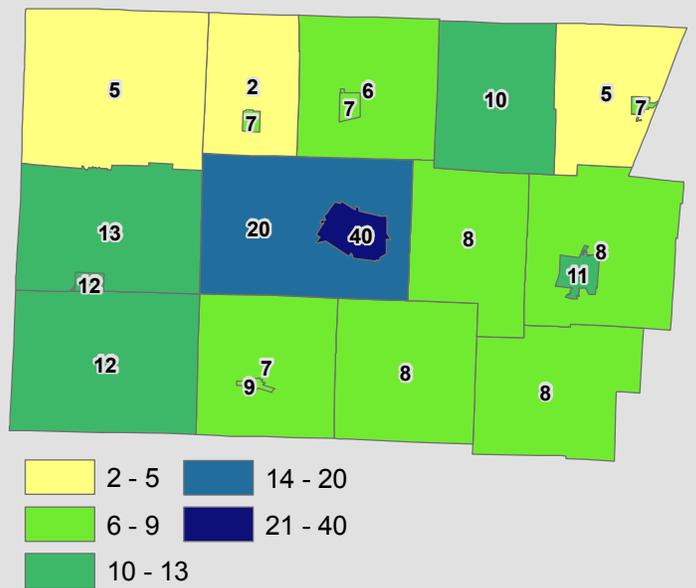
High Potential Loss Facilities



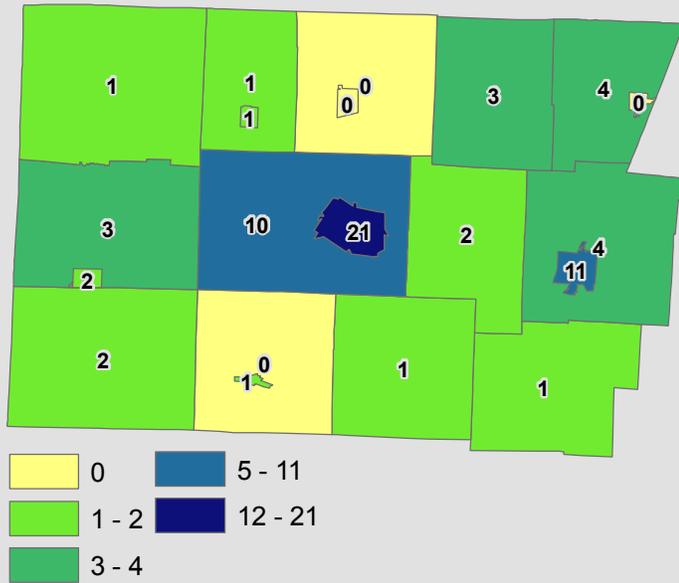
Hazardous Material Facilities



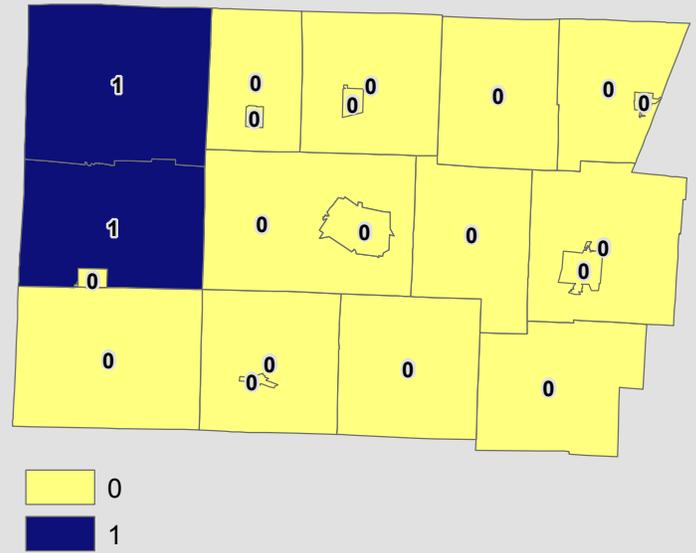
Critical Facilities- Total



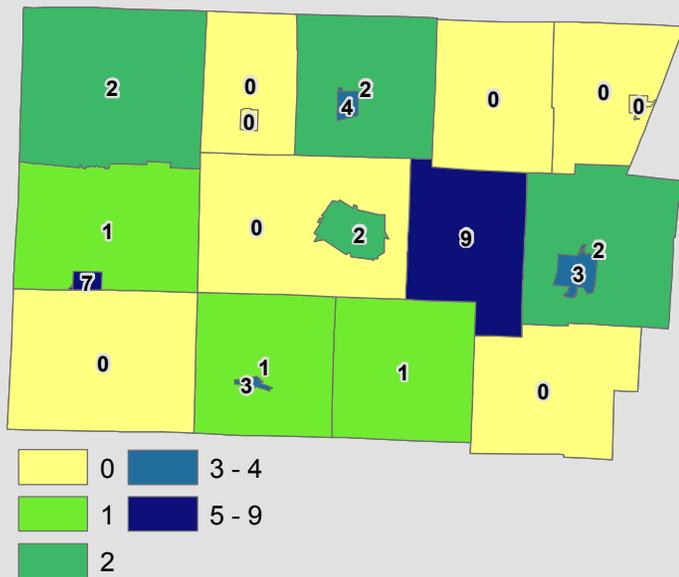
### Map 11 Vulnerable Populations



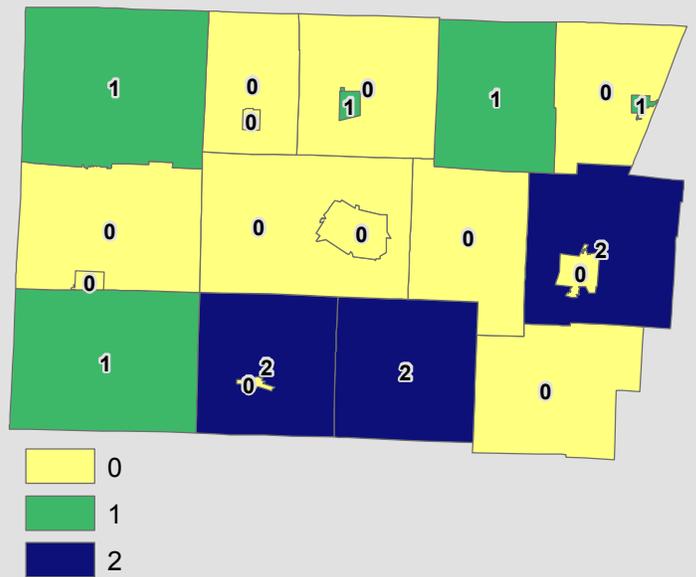
### Economic Elements



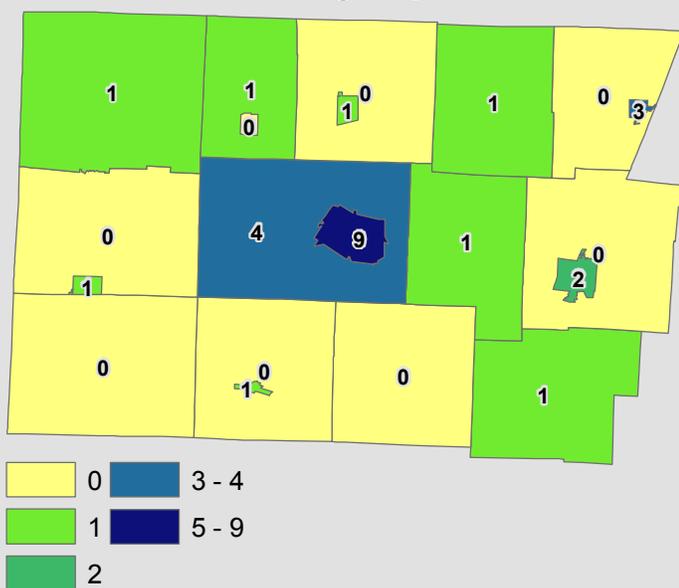
### Historic and Cultural Resources



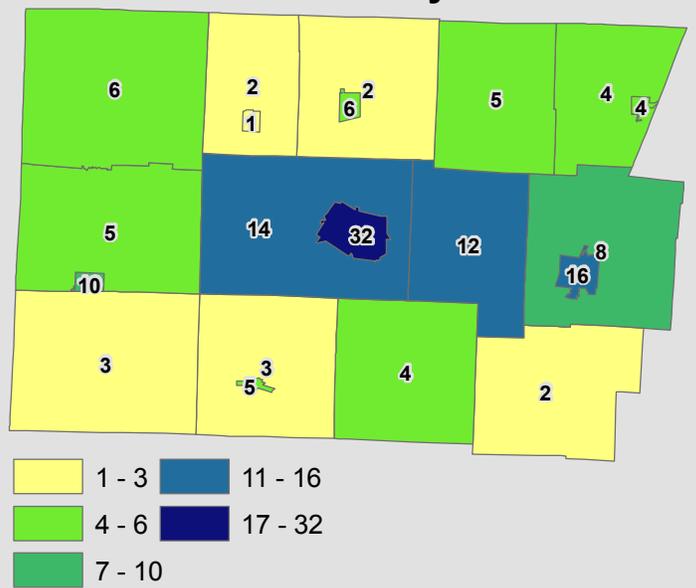
### Natural Resource and Recreation Areas



### Facilities Providing Important Services

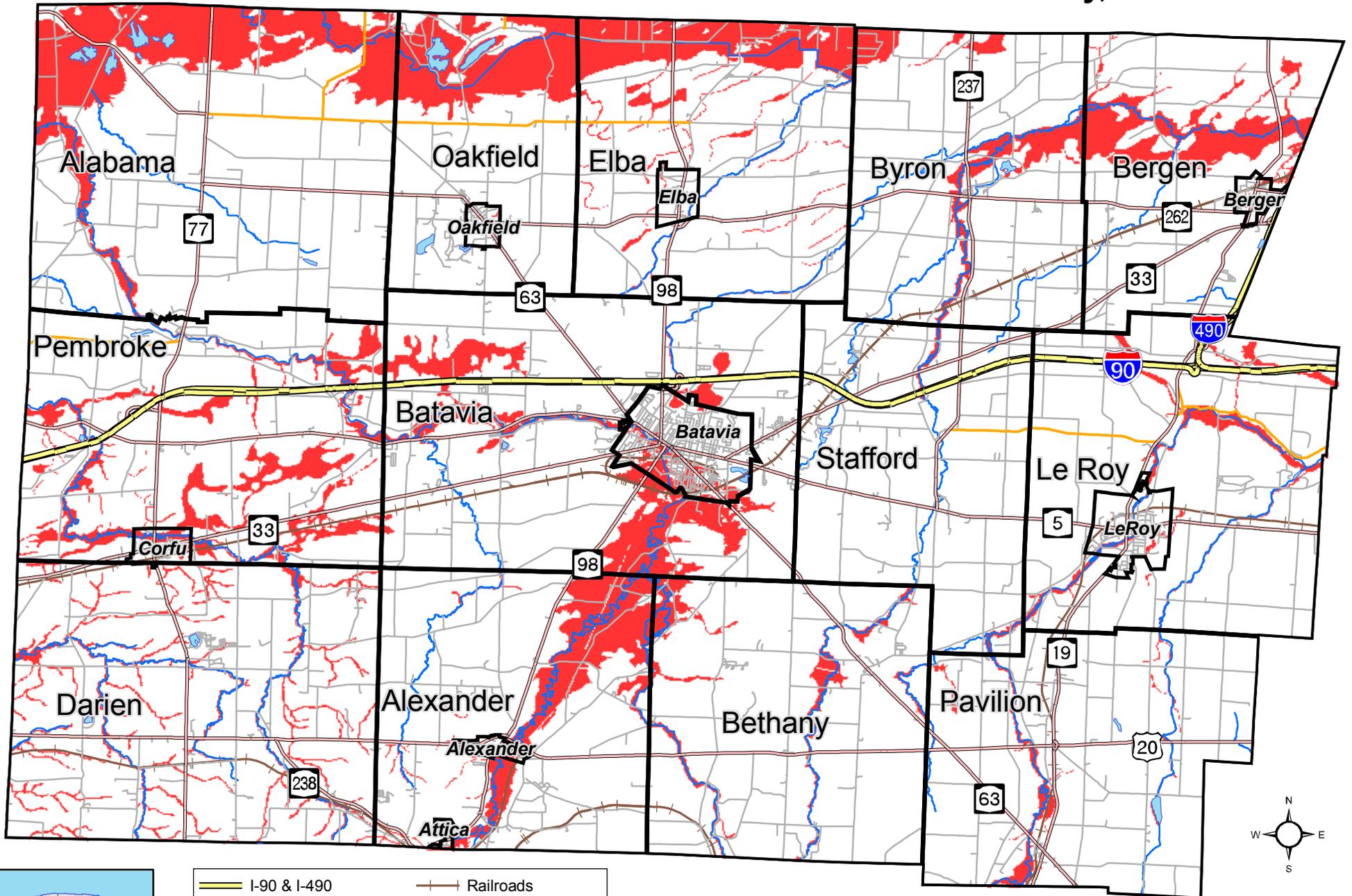


### Community Assets- Total

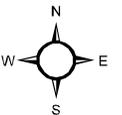
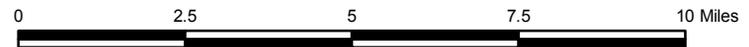


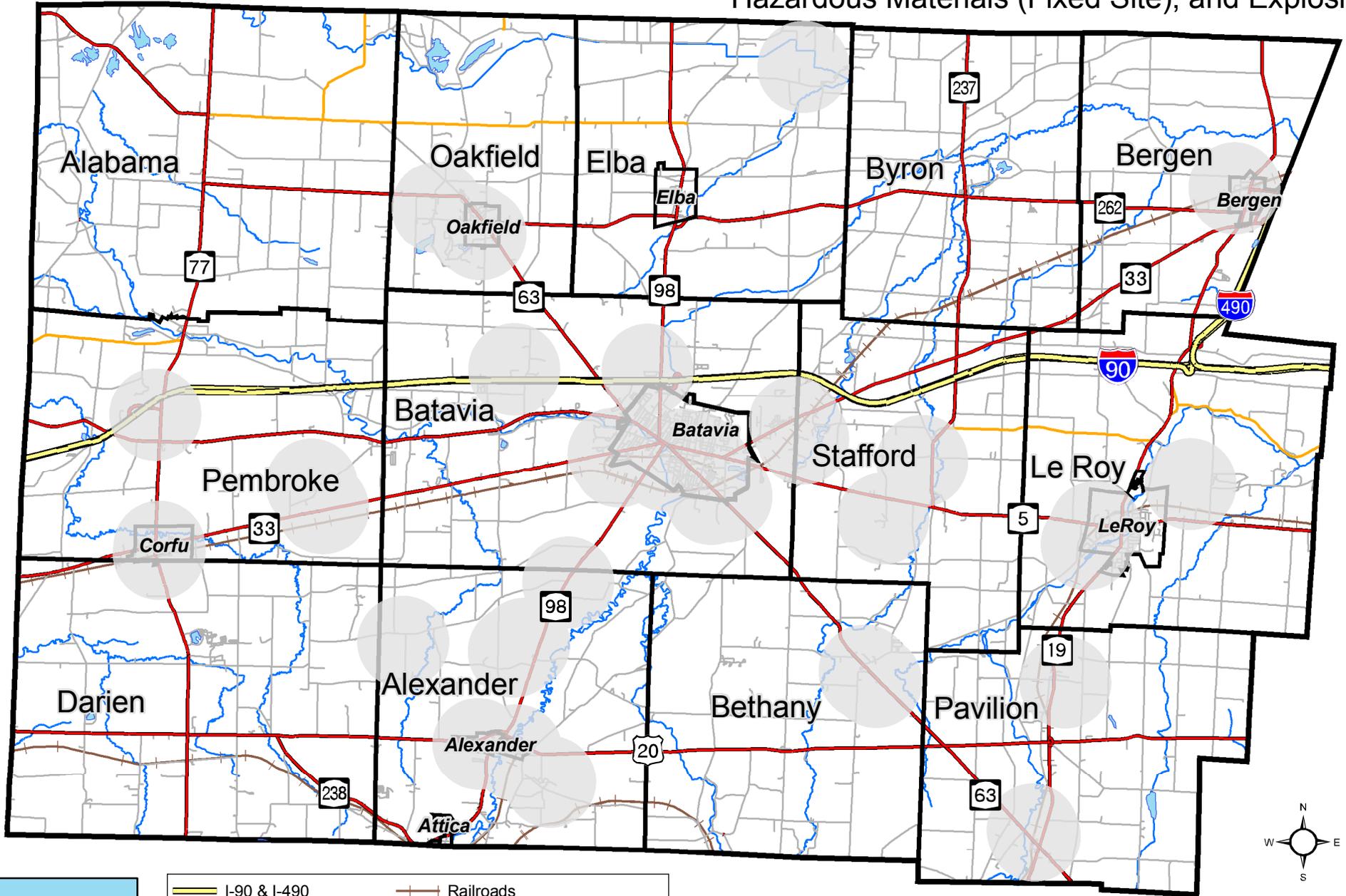
Map 12

# Flood Zone Areas- Genesee County, NY



|                      |                    |
|----------------------|--------------------|
| I-90 & I-490         | Railroads          |
| NYS & Federal Routes | Major Streams      |
| County Routes        | 100yr. Flood Zones |
| Roads                |                    |



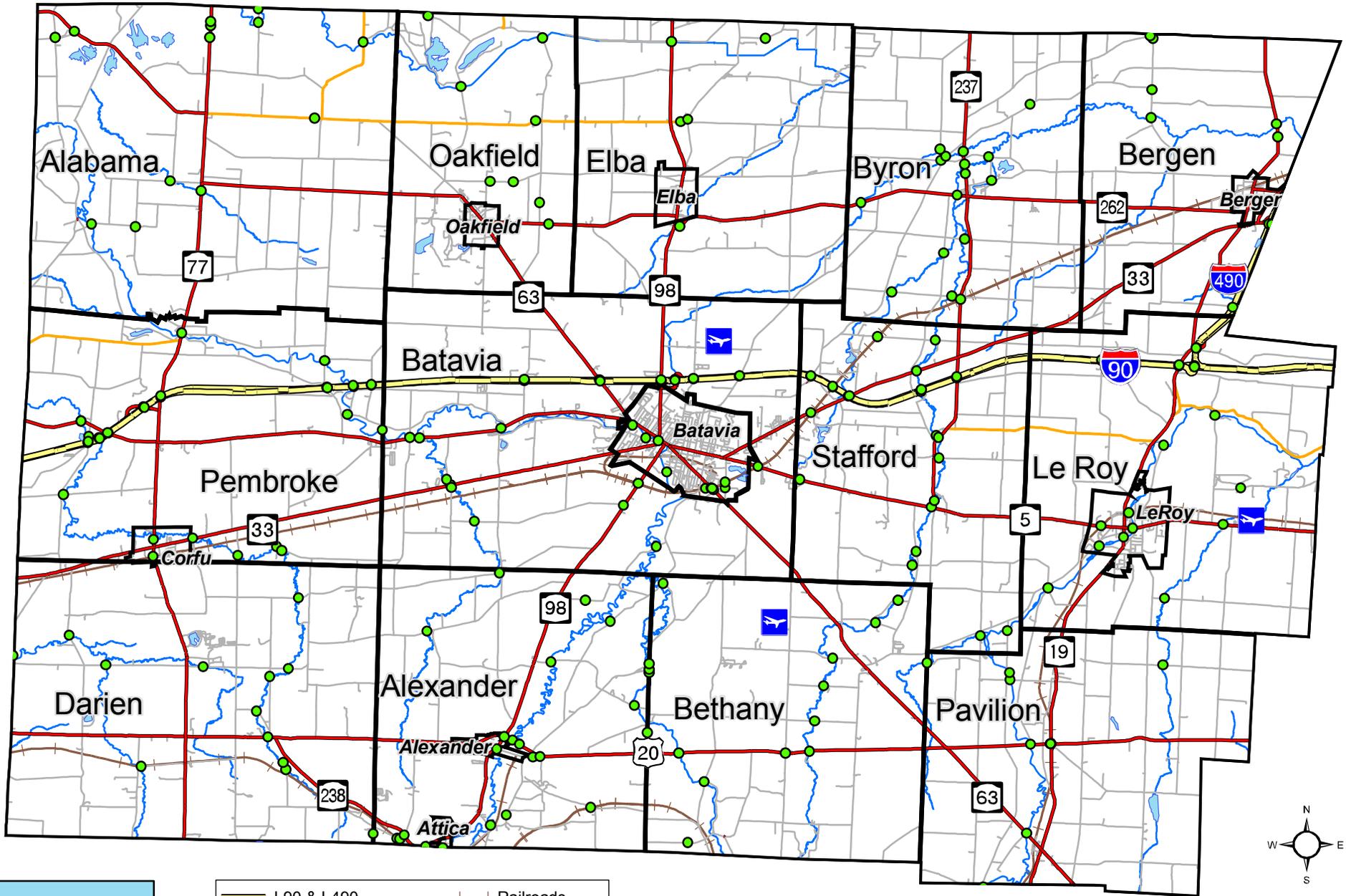


- I-90 & I-490
- NYS & Federal Routes
- County Routes
- Roads
- Railroads
- Major Streams
- Potential Hazard Buffer Zones

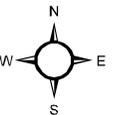
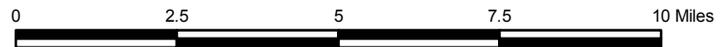
0 2.5 5 7.5 10 Miles

Buffer Zones, 2 miles in diameter, were placed around all facilities containing Hazardous Materials

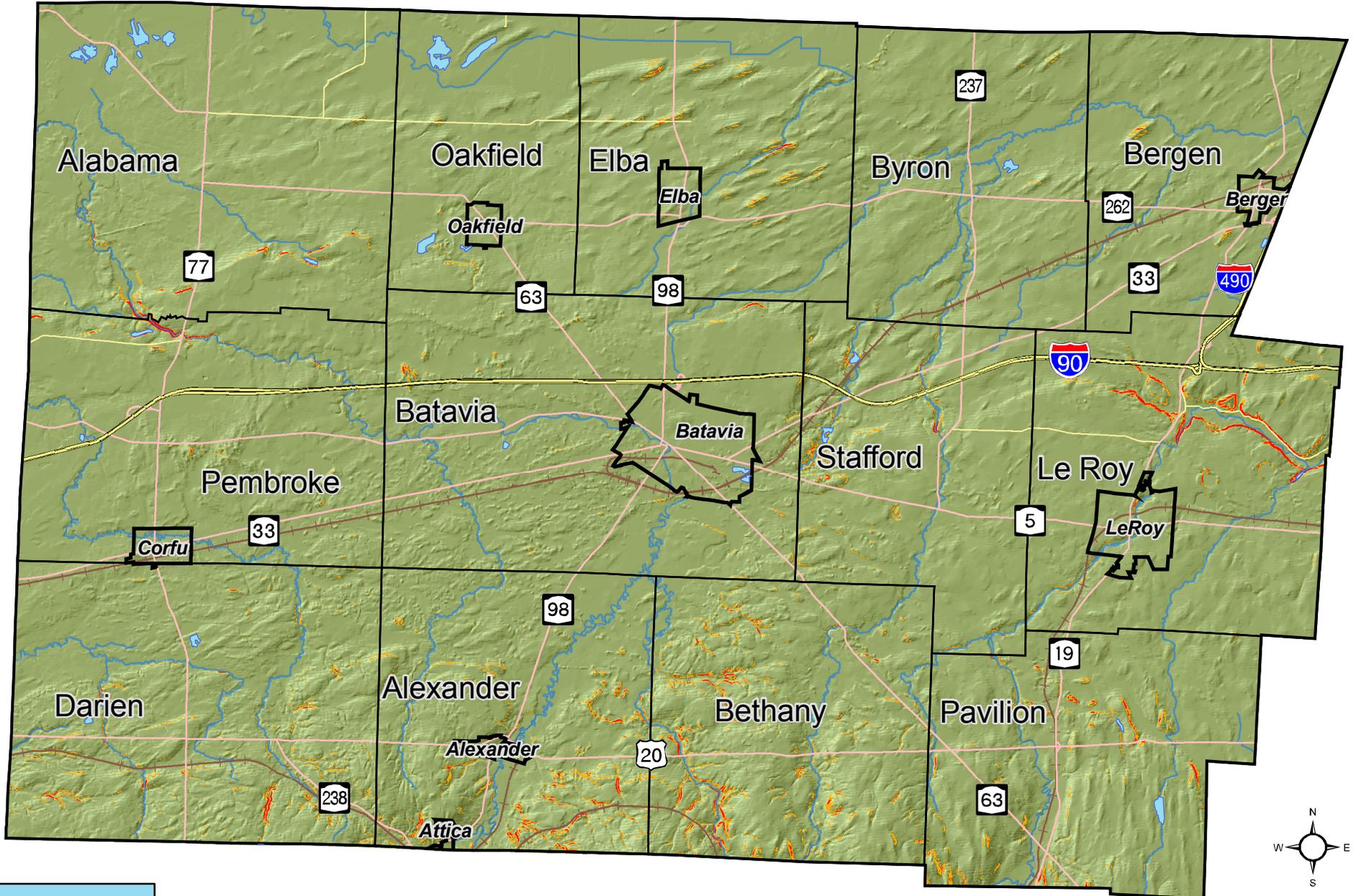
# Transportation Accident Potential- Genesee County, NY



- |                      |                    |
|----------------------|--------------------|
| I-90 & I-490         | Railroads          |
| NYS & Federal Routes | Major Streams      |
| County Routes        | Bridges            |
| Roads                | Airport / Airfield |



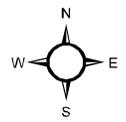
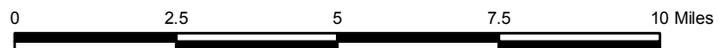
# Steep Slopes- Genesee County, NY



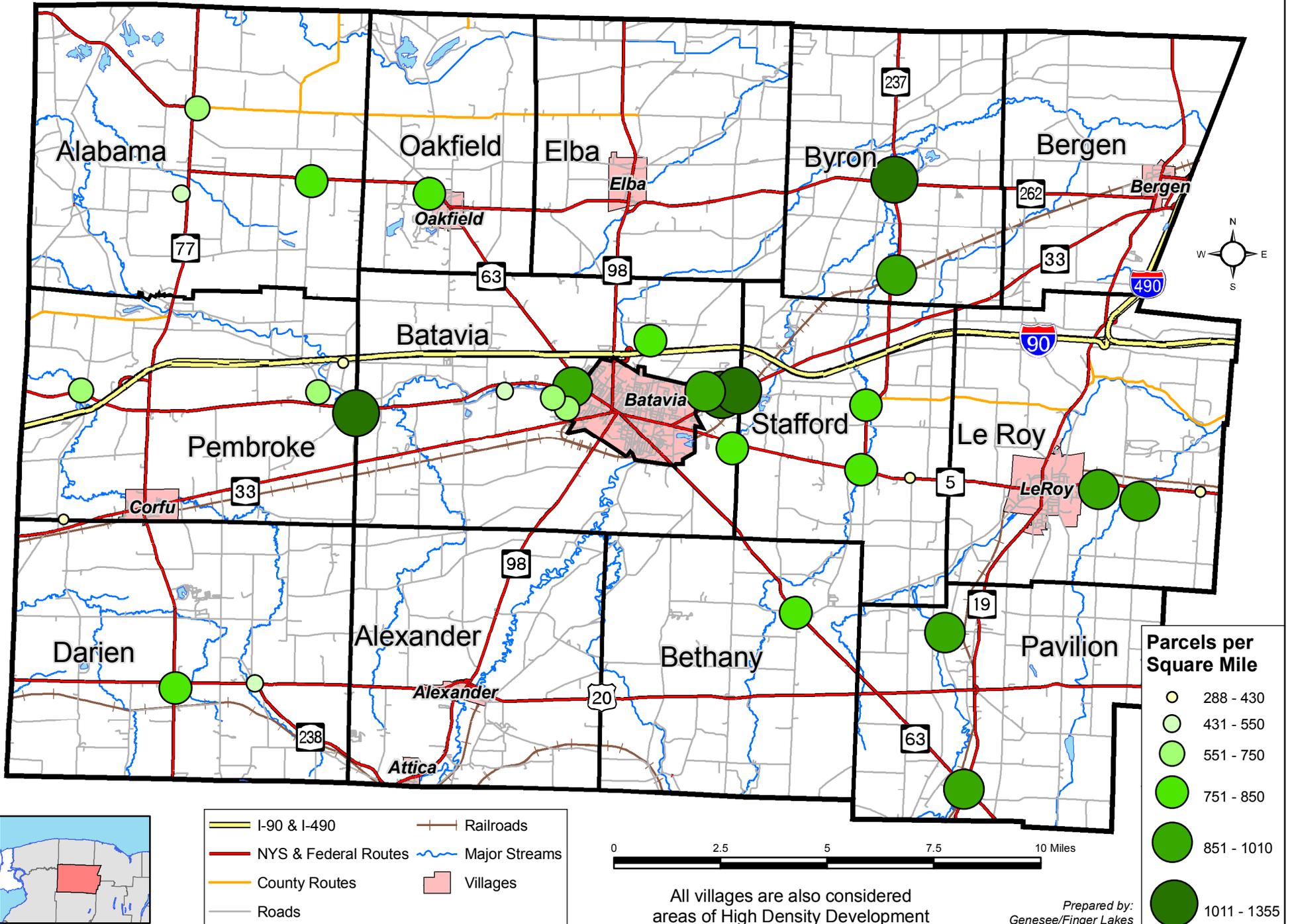
|                      |               |
|----------------------|---------------|
| I-90 & I-490         | Railroads     |
| NYS & Federal Routes | Major Streams |
| County Routes        |               |

**Slope % (GFL Region)**

|            |
|------------|
| 0 - 14.9%  |
| 15 - 24.9% |
| > 25%      |



# High Density Development- Genesee County, NY



**Parcels per Square Mile**

|  |             |
|--|-------------|
|  | 288 - 430   |
|  | 431 - 550   |
|  | 551 - 750   |
|  | 751 - 850   |
|  | 851 - 1010  |
|  | 1011 - 1355 |

|  |                      |  |               |
|--|----------------------|--|---------------|
|  | I-90 & I-490         |  | Railroads     |
|  | NYS & Federal Routes |  | Major Streams |
|  | County Routes        |  | Villages      |
|  | Roads                |  |               |

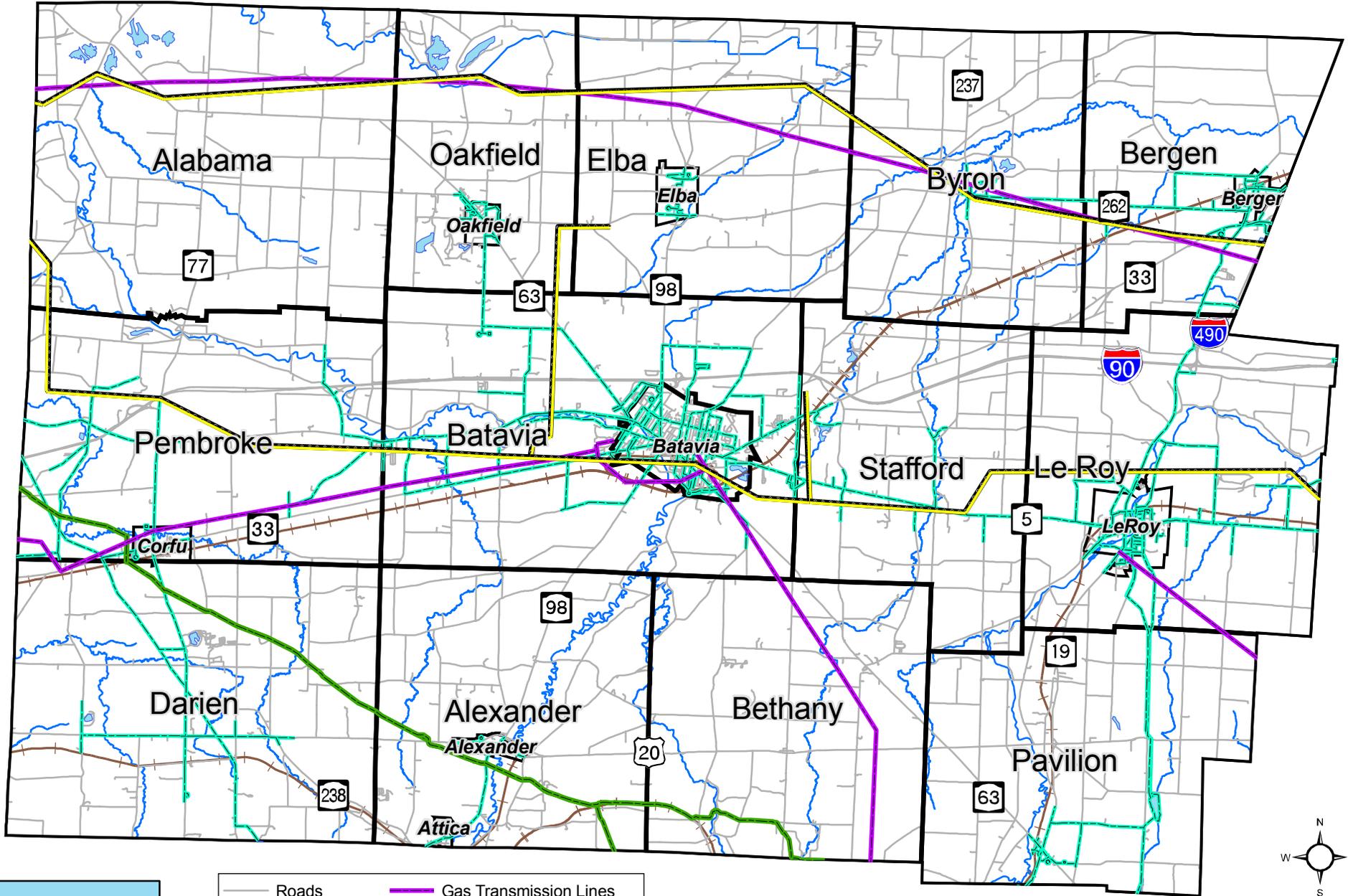


All villages are also considered areas of High Density Development

Prepared by:  
Genesee/Finger Lakes  
Regional Planning Council, 2006



# Pipelines & Transmission Lines-Genesee County, NY



- |               |                             |
|---------------|-----------------------------|
| Roads         | Gas Transmission Lines      |
| Railroads     | Electric Transmission Lines |
| Major Streams | Water Infrastructure        |
| Villages      | Brine Pipelines             |



## **Chapter 8: *Mitigation Strategy***

### **SECTION 8.1: INTRODUCTION**

According to the Federal Emergency Management Agency (FEMA), mitigation is the cornerstone of emergency management planning. Mitigation involves long-term actions taken to reduce and/or eliminate the impact of disasters on people's lives and the built environment. Pre-disaster planning saves lives, protects property, and lessens the cost of disaster response and recovery.

Chapter 5 identified hazards that could occur in Genesee County. Chapter 6 detailed the history of previous hazard events. Chapter 7 identified critical facilities and community assets in Genesee County, and assessed the vulnerability of these facilities to specific hazards.

Chapter 8 outlines the methodology, mitigation goals and objectives, and proposed strategy for lessening or eliminating the risks associated with each community's vulnerability to various hazard events.

### **SECTION 8.2: METHODOLOGY**

The Mitigation Strategy was developed with direct input from the Genesee County All-Hazard Mitigation Planning Committee. The strategy was developed in several phases which are described below.

In November 2006, at a regular meeting of the Genesee County All-Hazard Mitigation Planning Committee, work on the Mitigation Strategy got underway. G/FLRPC staff delivered a presentation and distributed handouts to the committee members that outlined the procedures of developing the Mitigation Strategy. The presentation and handouts were based on FEMA guidelines, such as those found in the FEMA publication "Developing the Mitigation Plan: Identifying Mitigation Actions and Implementation Strategies," FEMA 386-3. The attendees then discussed and developed draft goals and objectives for the plan. These five goals (listed below, see pages 150-151) serve to structure the Mitigation Strategy.

At this meeting the attendees were asked to begin considering what potential mitigation projects they would like to see implemented through the all-hazard mitigation plan. The attendees were asked to carefully review the Risk Assessment section of the plan and base their thinking on the highest ranked natural hazards, which are the hazards with the longest and most destructive history in the county as well as the highest probability of repeat occurrences.

In mid December 2006 G/FLRPC staff met with a small group of Emergency Management and Planning Department staff to generate a list of potential hazard mitigation projects. This list of projects was then circulated among county agency and municipal officials to provide them with a guide to devising their own mitigation projects.

In early January 2007 a series of meetings were held to give county and municipal officials an opportunity to discuss their mitigation project ideas with Genesee County Emergency Management Office and G/FLRPC staff. Hosted by these two agencies, the municipal meetings were held during evening hours so that local officials who work during the day could easily attend them. The county agency meeting was held during the regular workday to allow county staff to attend.

A schedule of these meetings follows on the top of the following page:

| <b>Region</b>                | <b>Municipalities:</b>  | <b>Dates/Times:</b>                            | <b>Locations:</b>   |
|------------------------------|---|--|---|
| <b>1</b>                     | Towns of Alabama, Pembroke, Darien; Village of Corfu.   | Monday, January 8 <sup>th</sup><br>7:00 PM     | Corfu Community Center, Corfu N.Y.                        |
| <b>2</b>                     | City of Batavia; Towns of Batavia, Oakfield, Elba, Alexander, Bethany; Villages of Oakfield, Elba, Alexander, Attica. | Tuesday, January 9 <sup>th</sup><br>7:00 PM    | Genesee County Emergency Management Office, Batavia, N.Y. |
| <b>3</b>                     | Towns of Byron, Bergen, Stafford, Le Roy, Pavilion; Villages of Bergen and Le Roy.                                    | Wednesday, January 10 <sup>th</sup><br>7:00 PM | Le Roy Elementary School, Le Roy, N.Y.                    |
| <b>County Agency Meeting</b> |   | Thursday, January 11 <sup>th</sup><br>10:00 AM | Genesee County Emergency Management Office, Batavia, N.Y. |

During these meetings county and municipal officials discussed their hazard concerns and projects ideas with representatives of the County Emergency Management Office and G/FLRPC. The main result of these meetings was a list of potential hazard mitigation projects.

Following these meetings, at the request of the Planning Committee, G/FLRPC staff combined the project ideas collected from the attendees at these meetings with projects developed for other countywide all-hazard mitigation plans to produce a preliminary master list of potential projects. At the Planning Committee meeting on January 31<sup>st</sup>, 2007, the attendees first selected and then ranked the mitigation measures they wanted to see carried out for Genesee County. The attendees considered the STAPLEE criteria (see below, pages 151-152) while prioritizing the mitigation measures.

After the January meeting, G/FLRPC staff prepared a draft of the Mitigation Strategy which was distributed to the Planning Committee for review and revision at its February meeting. The committee members were asked to send all their comments and corrections to G/FLRPC by March 16<sup>th</sup>

### **SECTION 8.3: MITIGATION GOALS AND OBJECTIVES**

Mitigation Goals and Objectives, as defined below, were identified by the Planning Committee to help guide the development of mitigation measures. The five goals are overarching concepts that provide a framework for the intentions of the Mitigation Strategy. The objectives are measurable actions intended to support each goal. The goals and objectives were developed in the process described in the previous section.

**Goal 1      Protect life and property from the impacts of natural, technological and human-caused disasters.**

- Objective 1.1    Set the priority on hazards that cause repetitive damage and/or pose severe risk.
- Objective 1.2    Develop and implement strategies that make critical facilities and community assets, as well as private homes and businesses, more resistant to the impact of hazard events.
- Objective 1.3    Encourage preventative measures for existing and new development in areas vulnerable to hazards, and develop strategies that support municipal officials working towards responsible development in hazard-prone areas.

**Goal 2      Enhance awareness and education of the risks associated with natural, technological, and human-caused hazards.**

- Objective 2.1    Recognize what issues the public needs to understand about hazard mitigation.

- Objective 2.2 Develop and execute education and outreach programs to increase public awareness of both the risks associated with hazards, and strategies that can be adopted to lessen the impact of hazard events.
- Objective 2.3 Provide information on resources available for implementing mitigation strategies.
- Goal 3 Build a hazard mitigation infrastructure and promote pre-disaster mitigation as the most effective means to reduce future disaster losses.**
- Objective 3.1 Utilize the All-Hazard Mitigation Plan effectively by clearly communicating about plan implementation, plan maintenance and plan updates. This includes helping people to understand what their role is in both disaster response and pre-disaster mitigation.
- Objective 3.2 Identify agencies, personnel and resources available to implement pre-disaster mitigation activities and initiatives.
- Objective 3.3 Track and/or recommend Federal, State and local legislation related to hazard mitigation.
- Goal 4 Reduce barriers to implementing coordinated hazard mitigation strategies across Federal, State, Regional, County and Municipal agencies.**
- Objective 4.1 Foster an awareness of the efforts and practices already in place through the efforts of various agencies and organizations, and develop a coordinated way to work together.
- Objective 4.2 Coordinate participation and encourage communication among various stakeholders in order to effectively implement mitigation strategies and respond to hazard events.
- Objective 4.3 Encourage leadership within public and private sector organizations to prioritize and implement local, county, regional and state hazard mitigation strategies.
- Goal 5 Encourage the development and implementation of long-term, cost-effective and environmentally sound local mitigation projects.**
- Objective 5.1 Balance watershed planning, natural resource management, and land use planning with hazard mitigation to protect life, property, and the environment.
- Objective 5.2 Consider other long-term regional, county and municipal plans, and mesh the implementation of the hazard mitigation strategies into these long-term visions for the future.

#### **SECTION 8.4: ANALYSIS OF MITIGATION MEASURES**

A detailed cost-benefit analysis of each mitigation measure was beyond the scope and intent of this plan. However, during the Mitigation Strategy development phase, the Planning Committee used the FEMA “STAPLEE” criteria as a guide for developing and prioritizing the mitigation measures.

STAPLEE is an acronym that stands for the following:

**S – Social:** Consider public acceptance and support of the mitigation measure.

**T – Technical:** Evaluate whether the proposed action is technically feasible.

**A – Administrative:** Evaluate the anticipated staffing, funding, and maintenance requirements of the mitigation measure.

**P – Political:** Determine the local political leadership’s support of the mitigation measure.

**L – Legal:** Evaluate the community’s legal authority to implement a mitigation measure.

**E – Economic:** Consider the cost-effectiveness of the action, potential funding sources, and the potential impact on local economic conditions.

**E – Environmental:** Evaluate how the action affects local environmental concerns.

STAPLEE is a widely accepted evaluation process used throughout the country in hazard mitigation planning. It provides a systematic procedure for assessing the practicality of proposed mitigation measures.

Each mitigation measure was initially prioritized by the Planning Committee members. The Committee used the STAPLEE categories to *qualitatively* assess the ability of each mitigation measure to effectively address a potential hazard. After this initial assessment was complete, G/FLRPC staff prepared a *quantitative* assessment of each mitigation measure by assigning a numerical value to each of the seven STAPLEE criteria. This numerical value was based on the Planning Committee’s feedback obtained at the January 2007 Planning Committee meeting as described above (see page 149). This assessment resulted in the assignment of High, Medium, or Low priorities to each mitigation measure. Based on this feedback from the Planning Committee, G/FLRPC staff applied the STAPLEE criteria to each mitigation measure in order to prepare a quantitative assessment. The FEMA publication *Using Benefit-Cost Review in Mitigation Planning* (FEMA 386-5) was used as a guide for this process.

High priority actions were determined to be actions that would solve the most pressing hazard issues in the county, have the greatest long term mitigation benefits, enjoy broad public and political backing, be technically feasible and environmentally sound, and be easily implemented through existing administrative and legal channels once support for the action is put in place.

Medium priority actions met all the above criteria, except that they addressed less pressing potential hazard issues and less hazard-prone conditions.

Low priority actions also met the above criteria, except that they address the least pressing potential hazards and the least hazard-prone conditions.

All mitigation measures included in the hazard mitigation plan were found to have a positive cost-benefit ratio, especially in the case of projects and programs aimed at breaking repetitive loss cycles. Any projects that did not have a positive cost-benefit ratio were not included in the plan.

The municipal prioritization process also used the STAPLEE criteria, but at a different scale. Municipal officials were asked to select a number of mitigation measures from the master list that they considered particularly important for their communities. Depending on the project, municipalities will either carry out the project on their own or implement it by acting in a supporting role to a lead county agency.

Mitigation projects that are related to flooding/drainage problems are included in Appendix D, which provides a list identifying flooding/drainage problem sites within each municipality. Flooding problems are common to most municipalities in the County and a unified, countywide flood mitigation program is generally considered the most practical and efficient way of remediating them.

The county and municipal mitigation measure tables include additional information for each mitigation measure. An estimated timeframe, potential funding sources, potential lead agencies, potential supporting agencies, and an estimated cost are identified for all mitigation measures.

## SECTION 8.5: MITIGATION MEASURE CATEGORIES

This section aims to identify potential mitigation actions based on the Hazard Assessment that can be used to lessen the impacts of hazard events in Orleans County communities. The Mitigation Strategy is based on the input provided by the municipal committees, as well as county agency representatives and the All-Hazard Mitigation Planning Committee.

All mitigation actions can be grouped into six key categories:

**Prevention.** Government administrative or regulatory actions or processes that influence the way land and building are developed or 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.

Example: Review and update floodplain local laws

**Property Protection.** Actions that involve the modification of existing buildings or structures to protect them from a hazard, or removal from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Example: Town Board will encourage property owners to consider flood proofing their properties, and attempt to procure funding to defray the costs

**Public Education and Awareness.** Actions to inform and educate citizens, elected officials, and property owners about the 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.

Example: Disclosure of flood hazards to potential property owners

**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.

Example: Implement erosion and sediment control projects

**Emergency Services.** Actions that protect people and property during and immediately after a disaster or hazard event. Services include warning systems, emergency response services, and protection of critical facilities.

Example: Develop a flood warning system that includes installation of a rain gauge and marking bridges with critical flood elevations

**Structural Projects.** Actions that involve the construction of structures to reduce the impact of a hazard. Structures include dams, levees, floodwalls, seawalls, retaining walls, and safe rooms.

Example: Village DPW will work with appropriate parties to ensure that storm sewers are installed at certain locations

## SECTION 8.6: HAZARD MITIGATION MEASURES – MASTER LIST

The following Master List of mitigation projects identifies potential mitigation actions that will be used to lessen the impacts of hazard events in Genesee County communities. The mitigation measures are based on the Hazard Assessment section of the all-hazard mitigation plan; input provided by municipal, county,

and state agency officials, the Genesee County Flood Mitigation Plan, the Genesee/Finger Lakes Regional Planning Council, and the All-Hazard Mitigation Planning Committee.

1. Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas such as floodplains, steep slopes, bluffs, wetlands, and habitat for local development review procedures. Identifying and locating such physical characteristics will provide a framework for determining the suitability of a site for a proposed land use. Municipalities might find a template to be helpful in developing such districts.
2. Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character. Tree limbs can be a problem in many severe weather events. For this reason, DPW and utility companies do preventative cutting of tree limbs to maintain utility lines. Municipalities that want to retain local character are often not happy with the results. This conflict between community character and tree maintenance needs to be resolved, and needs to comprehensively address tree planting, trimming and removal. A plan should also address the need to educate the general public about tree maintenance in preparation for severe weather.
3. Maintain an inventory/database of historic structures eligible to local preservation, including those on the State and National Register of Historic Places. Historic structures are often subject to neglect, and may not have been properly maintained. Not all structures should be demolished and removed, particularly those of significant local or national significance. Placing a property on the state or national list does not command any protection, but rather, encourages local municipalities to develop a program aimed at maintaining their historic buildings.
4. Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water. During emergency situations, these maps will give road/repair crews immediate access to the location of this vital infrastructure. At present, there is a general reliance on memory and personal knowledge for this information.
5. Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process.
6. Develop and distribute brochures, fact sheets and web-based information related to hazard events. Locations of shelters and command centers are situation dependent, and not well-suited to brochures. However, emergency All contact numbers and general facts on where to get emergency information during the event could be distributed. In particular, these materials need to communicate what the designated emergency radio stations are for county emergency situations. Also, the American Red Cross, FEMA, and Cornell Cooperative Extension have extensive fact sheets, manuals and web-based resources available that could be publicized and distributed.
7. Encourage the protection of wetlands and aquifers wherever possible. Wetlands are capable of absorbing large amounts of flood water, slowing and reducing downstream flow, and filtering water of both sediment and pollutants. Many people are not aware of the critical role that wetlands play in the natural system. Development in or near wetlands is regulated by the Army Corps of Engineers and the NYS Department of Environmental Conservation. Integrating the wetlands permit process with education and enforcement would improve wetlands protection.
8. Encourage the revision of local laws to include measures for erosion and sediment control. Erosion and sediment control is critical in managing flooding and water supply contamination. The County and all municipalities are encouraged to follow the New York State guidelines and standards in developing effective erosion and sediment control practices.

9. Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers. The Red Cross has a sheltering plan for emergency situations, and all municipal and county efforts to create shelters should be done in communication with the Red Cross. If a municipality wants the Red Cross to open a shelter, a request must be made to the Red Cross, as a shelter cannot be initiated without municipal permission. School Districts should be encouraged to update their sheltering capabilities through the NYS Department of Education's General Construction program, which offers a 75-90% payback.
10. Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data. Set up a real-time display in the County Emergency Management Office.
11. Develop and communicate a plan instructing residents what to do with their pets in an evacuation or shelter situation. Many pet-owners will not evacuate without their animals, and if not evacuated, these residents are at risk from hazard events. A countywide strategy for accommodating pets during a hazard event should be prepared that would streamline the evacuation process and allow for pets to either be evacuated to a separate, but convenient location, or to a pet-friendly shelter.
12. Create a door tag that can be left on resident's doors when door-to-door notifications are necessary in an emergency, and the resident is not home. Develop standard forms for common hazard events.
13. Incorporate evacuation/care plans for people with mental illnesses into the Genesee County Special Needs Plan. Plan for special shelters, or designated areas within a shelter, to accommodate this segment of the population. As part of this planning process, study the possibilities of segmenting the general population while in shelters with the understanding that different groups have different needs.
14. Incorporate evacuation/care plans for senior citizens into the Genesee County Special Needs Plan. Plan for special shelters, or designated areas within a shelter, to accommodate this segment of the population. These "Senior Shelters" should be wheelchair accessible, have good lighting and heating, have medical supplies and oxygen, and be distinct in some way from shelters for the general public.
15. Regularly update the Genesee County Comprehensive Emergency Management Plan. The county already has a plan in place, and each municipality should also have a plan. All plans should be reviewed and updated regularly. Any changes to municipal plans should consider the overall county plan. An important part of this plan is developing evacuation routes, if not already designated in county or municipal emergency plans. Other than evacuation routes, any roads to be used in a hazard event will depend on the situation, and should not be specified ahead of time.
16. Review sheltering in place capabilities at senior and assisted living facilities. Evacuations may not be possible during or immediately after a hazard event, and vulnerable populations should be able to shelter in place for at least three days following a hazard event.
17. Train personnel to focus on "de-escalating" potentially violent situations in schools and public buildings. Ensure school/social services personnel are adequately trained to accomplish this.
18. Prepare a countywide inventory of manure storage facilities. This inventory will be used for assisting emergency service personnel in preparing for and in the event of an accident involving manure.
19. Undertake a Feasibility Study to analyze the possibility of creating a countywide drainage district. This drainage district would operate according to a long-term maintenance schedule for cleaning and

maintaining ditches, catch basins and main tributaries. A coordinated countywide plan, working from downstream to upstream, is needed. Municipalities want to remove debris, stabilize banks, and contain new development in sensitive areas. A committee could be coordinated through the Soil and Water Conservation District, and the process would involve the NYS Department of Environmental Conservation, as well as individual property owners. The drainage district would handle all permitting issues and oversee the remediation work with input from County agencies such as the Highway and Emergency Management offices as well as municipal highway and public works departments.

20. Encourage FEMA to complete a countywide update of the FEMA Flood Insurance Rate Maps (FIRMs) as soon as possible. Many of the FIRMs in Genesee County are seriously outdated, several dating back to the late 1970's. Even the most recently updated maps are from the mid- 1990's. Each municipality can request an updated FIRM, but a more coordinated approach would be preferable. The county would request an update on all flood maps, and this effort could be coordinated through the County Planning Department.
21. Municipal officials should consider participating in the Community Rating System (CRS), a program that rewards communities for performing extra flood plain activities beyond the minimum requirements for the National Flood Insurance Program. The CRS awards points to participating communities, which reduce the flood insurance premiums paid by the residents of that community. None of the municipalities in Genesee County are currently participating in the voluntary CRS program through FEMA. The County Emergency Management Office can coordinate a seminar to inform local officials of this program.
22. Establish a procedure to transfer development rights from floodplain areas into designated receiving areas. A Transfer of Development Rights Program allows the buying and selling of a property's development rights on a voluntary, market-driven basis. Providing local governments and landowners with the ability to transfer development rights will assist with coordinated inter-municipal planning.
23. Municipal officials should begin implementing the municipal flood/drainage mitigation programs included within the Genesee County Flood Mitigation Plan, which describes in considerable detail the location and nature of flooding problems in the Tonawanda Creek and Oatka Creek watersheds. Municipalities that do not have a flood/drainage mitigation program in the Flood Mitigation Plan should prepare one, using the Flood Mitigation Plan as a guide.
24. Carry out a countywide survey aimed at identifying repetitive loss properties that are vulnerable to flooding and develop mitigation options, which might include flood proofing, as well as buying out or relocating structures.
25. Raise awareness of and enforce existing floodplain regulations. All municipalities in Genesee County currently participate in the National Flood Insurance Program (NFIP), and should therefore have flood regulations.
26. Raise minimum residential elevations required in flood prone areas. New Flood Insurance Rate Maps should indicate the base flood elevation. If new maps are not available, the base flood elevation should be designated by an engineer prior to development.
27. Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. Municipalities need to inventory and purchase their own sandbags for flood events, but

municipal officials would like to have a better sense of how and when the county will help. The Army Corps of Engineers also has sandbags that can be used in emergencies, but would like each municipality to purchase their own sandbags in order to better handle situations alone. A clear understanding of sandbagging responsibilities and options is needed, as well as an increase in the number of available sandbags.

28. Assist flood prone homeowners/businesses to relocate out of flood zones. Based on the updated FIRMs, each municipality should identify flood-prone properties and offer to work with the land owners to accomplish the relocation.
29. Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant.
30. Continue participation in the National Flood Insurance Program (NFIP).
31. Disclose risks of flood zones to property owners. Both existing and prospective property owners should be informed if a piece of property is located within the 100-year flood zone. A strategy should be implemented to inform potential property owners, possibly by encouraging home inspectors to provide this information to potential property owners in a pre-purchase home inspection. Also, a large map of flood zones and/or flood overlay zones could be prominently posted in a public area of the municipal offices. Existing property owners should also be informed of mitigation strategies that can be used to lessen the impact of flooding.
32. Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.
33. Develop a process through which property owners provide information to the county and to adjacent homeowners when they drastically change their drainage. For example, when a farmer installs drainage tile, this should be mapped and provided to the Soil & Water Conservation District and to surrounding property owners. This should be integrated with flood map changes.
34. Develop a plan to correct stream bank erosion. Identify problem areas and coordinate all the necessary partners to correct stream bank erosion areas where needed and appropriate.
35. Carry out a countywide assessment of dam safety conditions.
36. Replace faulty flood control devices. The Munson Street dam in Le Roy needs to be replaced or removed.
37. Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground. Develop a strategy to incrementally bury utilities in existing development on a schedule. Legislate that utilities be buried in new development, and develop model ordinances and policies to be used in achieving this goal. Develop creative financing strategies or income-eligible programs to assist with the implementation of this concept.
38. Develop and maintain an inventory of critical facilities with backup power generators. This list should be reviewed and updated on an annual basis as upgrades are made to these facilities.
39. Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters. The following county facilities need backup power support:

- New County Courthouse
  - Old County Courthouse
  - County Building One
  - Office of the Aging
  - County Airport
  - County Animal Shelter
40. Support community programs to assist elderly and vulnerable populations during utility failures. Encourage residents to check on elderly and other vulnerable neighbors.
  41. Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. Over 850 National Weather Service transmitters send out alerts across the country to warn people when their safety is threatened. Alerts are sent out to tell people that they need to take some action in order to protect themselves. The National Weather Service also uses this system to broadcast weather 24 hours a day. By pushing a button, a radio user can hear current weather conditions and forecasts for the area, any time of the day or night. Cost is between \$50-70 per radio.
  42. Require the use of hazard resistant construction. For wind storms, minimize the creation of windborne debris by appropriately designing, manufacturing and installing architectural features using wind resistant design and construction. For winter storms, utilize construction practices that can handle heavy snow loads.
  43. Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors. This has proven to greatly reduce damage even with a total lack of code enforcement.
  44. Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in Western New York.
  45. Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability. Based on this inspection, develop a seismic protection plan for these facilities.
  46. Inform the public of the earthquake hazard in Genesee County through a public outreach program. Discuss the impact of the 1929 Attica event and study the effects a similar earthquake would have if it occurred today.
  47. Establish and maintain an inventory of the existing wet and dry hydrant locations, and develop an understanding of future development needs. The Genesee County Emergency Management Office will work with municipal fire departments to identify priority locations and develop a plan for installing water lines and hydrants, as needed. Using the County's Smart Growth Plan, the Genesee County Planning Department can ensure that new water lines are not placed in areas that will induce sprawl.
  48. Standardize fire inspections, by working towards inspecting every three years. Increased frequency of inspections would reduce the number of fire hazards present in each structure that might go unnoticed for too long.
  49. Require containment construction for structures not currently mandated to meet code. Structures that go through renovations or alterations are obligated to use fire prevention measures in the structural

changes. However, buildings that are not renovated do not need to meet code, but instead remain a hazard.

50. Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.
51. Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures. Identifying and locating such physical characteristics will provide a framework for determining the suitability of a site for a proposed land use. Municipalities might find a template to be helpful in developing such districts.
52. Enforce separation of water wells from manure storage. In a county with significant agricultural areas, manure storage locations could significantly affect local water supplies. All livestock farms should participate in an Agricultural Environmental Management program, and utilize best practices, including good nutrient management.
53. Develop a program to provide free testing of water wells. Many county residents still remain on well water, and would benefit from an opportunity to test the water. Cornell Cooperative Extension in Ontario County developed such a program, and could be used as a resource.
54. Review security capabilities at water facilities and identify means of improving security. Fencing, cameras, and other security features can protect water treatment plants, storage tanks, and pumps.
55. Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination. Wellhead protection prevents drinking water from becoming polluted by managing potential sources of contamination in the area which supplies water to a public well. The public health of Genesee County residents would be protected and the expense of treating polluted water or drilling new wells would be avoided through wellhead protection efforts. Municipalities that provide public water from a groundwater system would be well-served by a wellhead protection plan. A plan would be implemented through local law revisions and updates.
56. Ensure proper hazardous material plans are in place for companies that handle hazardous materials, and ensure that all facilities handling hazardous materials are in compliance with all State and Federal regulations.
57. Ensure that municipal boards and officials are aware of the location of all major underground pipelines.
58. Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.
59. Inventory chronic traffic signal problems and areas where new signals are needed in order to effectively increase transportation safety. In some cases, new traffic signals need to be obtained and installed, where needed and appropriate. In other cases, chronic traffic signal problems need to be repaired and maintained. The state and the municipalities own the signals, not the county, but chronic signal problems within the county can be found in the 911 logbook where all calls are reported and recorded.
60. Carry out a countywide survey of dangerous intersections. Several dangerous intersections in the county need improvements to make them safer, and these intersections should be first analyzed and then prioritized based on traffic safety data. Improvements could consist of better lighting and/or

signage, the addition of turning lanes, installing traffic signals, or the complete reconstruction of an intersection to improve lines of sight and reduce steep grades.

61. Support federal, state, county and local efforts to increase public awareness of terrorism.
62. Regularly conduct and review an emergency response capability assessment. Such an assessment would help to identify emergency response shortfalls in regards to the impacted communities' preparedness levels, the effectiveness of warning systems, and the communities' ability to respond to the anticipated casualties and damage.
63. Educate the public on wildfire dangers, especially how wildfires can start, how and why they spread, and the difficulties of extinguishing them.
64. Work to ensure a reliable source of water for fire suppression in rural-residential areas in the northern part of the county through the cooperative efforts of water districts, fire districts, and residents.

### **MITIGATION MEASURES – COUNTY ACTION PLAN**

The following table provides additional details for each of the mitigation measures included in the Master List. Genesee County departments and agencies will work to implement these measures in order to reduce and/or eliminate hazard threats.

The headings and contents of each column in this table should be interpreted as follows:

**#** – Refers to the number assigned to each mitigation measure in the above Master List. Mitigation Measure Number 1 on the Master List is also Number 1 in the table, and so on.

**Category** – Refers to one of the six categories laid out by FEMA into which mitigation measures can be grouped. Each mitigation measure in this plan is assigned to one of these categories.

**Hazard** – Refers to the hazard/s that the mitigation measure is intended to address. When “All” appears under this heading, the mitigation measure applies to all potential hazards.

**Mitigation Measure** – The abbreviated mitigation measure from the Master List. Please refer to the above Master List for the complete mitigation measure.

**Priority** – Refers to the order in which the mitigation measures will be implemented on a county-wide scale. High priority mitigation measures will be carried out first, followed by Medium and then Low priority measures.

**Estimated Time Frame** – Refers to the estimated time period during which the mitigation measure should ideally be implemented.

**Potential Funding Sources** – The Department, Agency, Municipality, or organization from which funding to carry out a mitigation measure may be obtained.

**Potential Lead Agency** – The Department, Agency, Municipality, or organization that will take the lead in implementing the mitigation measure.

**Involved Agencies** – Any Department, Agency, Municipality, or organization that has a supporting role in implementing the mitigation measure.

**Approximate Cost** – The estimated cost of carrying out the mitigation measures. This figure is a suggested *estimate* and should be interpreted as a guide, rather than as a definitive cost statement.

Where insufficient information was available to provide a reasonable estimate, costs will be included in future revisions of this plan as additional information becomes available.

**Action Plan – Genesee County**

| # | Hazard(s) | Category                     | Mitigation Measure   | Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies  | Approx. Cost |
|---|-----------|------------------------------|--|----------|----------------------|---------------------------|-----------------------|--|--------------|
| 1 | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.     | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE          | TBD          |
| 2 | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.     | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                                       | TBD          |
| 3 | All       | Prevention                   | Maintain an inventory/ database of historic structures eligible to local preservation, including those on the State and National Register of Historic Places.      | Low      | 2008-Ongoing         | NYS OPRHP                 | County Historian      | Municipal Historians, County Planning                          | \$25,000     |
| 4 | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.     | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health                      | \$50,000     |
| 5 | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.     | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies                     | Staff Time   |
| 6 | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.     | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency                   | TBD          |
| 7 | All       | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.   | Low      | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 8 | All       | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.   | Low      | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 9 | All       | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or                                 | Med.     | 2008-2012            | FEMA                      | County EMO            | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000     |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|          |                  |                    |   |                 |                             |                                  |                              |  |                     |
|----------|------------------|--------------------|---|-----------------|-----------------------------|----------------------------------|------------------------------|--|---------------------|
|          |                  |                    | command centers.  |                 |                             |                                  |                              |  |                     |
| 10       | All              | Emergency Services | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data. | Med.            | 2008-2010                   | NYS DOS, NYSARA,                 | County Planning              | Municipalities, County EMO                     | \$50,000            |
| 11       | All              | Emergency Services | Develop and communicate a plan instructing residents what to do with their pets in an evacuation or shelter situation.  | Med.            | 2008-2010                   | FEMA                             | County EMO                   | County Health, Red Cross                       | \$25,000            |
| <b>#</b> | <b>Hazard(s)</b> | <b>Category</b>    | <b>Mitigation Measure</b>   | <b>Priority</b> | <b>Estimated Time Frame</b> | <b>Potential Funding Sources</b> | <b>Potential Lead Agency</b> | <b>Involved Agencies</b>                       | <b>Approx. Cost</b> |
| 12       | All              | Emergency Services | Create a door tag that can be left on resident's doors when door-to-door notifications are necessary in an emergency, and the resident is not home.               | Low             | 2008-2010                   | NYS OFA                          | County EMO                   | County Health, Office for the Aging, Red Cross | \$25,000            |
| 13       | All              | Emergency Services | Incorporate evacuation/care plans for people with mental illnesses into the Genesee County Special Needs Plan.  | High            | 2008-2009                   | Local Resources                  | County EMO                   | County Health, Office for the Aging, Red Cross | Staff Time          |
| 14       | All              | Emergency Services | Incorporate evacuation/care plans for senior citizens into the Genesee County Special Needs Plan.   | High            | 2008-2009                   | Local Resources                  | County EMO                   | County Health, Office for the Aging, Red Cross | Staff Time          |
| 15       | All              | Emergency Services | Regularly update the Genesee County Comprehensive Emergency Management Plan.  | High            | 2008-Ongoing                | Local Resources                  | County EMO                   | SEMO   | Staff Time          |
| 16       | All              | Emergency Services | Review sheltering in place capabilities at senior and assisted living facilities.   | High            | 2008-2010                   | NYS OFA                          | County EMO                   | Office for the Aging, County Health            | \$25,000            |
| 17       | All              | Emergency Services | Train personnel to focus on "de-escalating" potentially violent situations in schools and public buildings.   | Med.            | 2008-Ongoing                | Local Resources                  | County EMO                   | County Sheriff, Local Police, CSDs             | Staff Time          |
| 18       | All              | Emergency Services | Prepare a countywide inventory of manure storage facilities.  | Low             | 2008-2010                   | USDA                             | SWCD                         | Municipalities                                 | \$25,000            |
| 19       | Flooding         | Prevention         | Undertake a Feasibility Study to analyze the possibility of creating a countywide drainage district.  | High            | 2008-2010                   | FEMA                             | SWCD                         | County Planning                                | \$50,000            |
| 20       | Flooding         | Prevention         | Encourage FEMA to complete a countywide update of the FEMA Flood Insurance Rate Maps (FIRMs) as soon as possible.   | High            | 2008-Ongoing                | FEMA                             | County EMO                   | County Planning                                | Staff Time          |
| 21       | Flooding         | Prevention         | Municipal officials should consider participating in the Community Rating System (CRS).   | High            | 2008-2010                   | Local Resources                  | County EMO                   | Municipalities, County Planning                | Staff Time          |
| 22       | Flooding         | Prevention         | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med.            | 2008-2010                   | NYS DOS                          | County Planning              | Municipalities, SWCD                           | \$25,000            |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|          |                  |                              |   |                 |                             |                                  |                              |                                       |                     |
|----------|------------------|------------------------------|---|-----------------|-----------------------------|----------------------------------|------------------------------|---------------------------------------|---------------------|
| 23       | Flooding         | Prevention                   | Municipal officials should begin implementing the municipal flood/drainage mitigation programs included within the Genesee County Flood Mitigation Plan.  | Med.            | 2008-Ongoing                | Local Resources, FEMA            | Municipalities               | SWCD, County Planning, County Highway | TBD                 |
| 24       | Flooding         | Prevention                   | Carry out a countywide survey aimed at identifying repetitive loss properties that are vulnerable to flooding and develop mitigation options.   | Low             | 2008-2010                   | Local Resources, FEMA            | County Planning              | County EMO, County Highway, SWCD      | \$25,000            |
| 25       | Flooding         | Property Protection          | Raise awareness of and enforce existing floodplain regulations.   | Med.            | 2008-Ongoing                | Local Resources                  | Municipalities               | County Planning, SWCD                 | Staff Time          |
| <b>#</b> | <b>Hazard(s)</b> | <b>Category</b>              | <b>Mitigation Measure</b>   | <b>Priority</b> | <b>Estimated Time Frame</b> | <b>Potential Funding Sources</b> | <b>Potential Lead Agency</b> | <b>Involved Agencies</b>              | <b>Approx. Cost</b> |
| 26       | Flooding         | Property Protection          | Raise minimum residential elevations required in flood prone areas.   | Low             | 2008-2010                   | NYS DOS                          | Municipalities               | County Planning, SWCD                 | \$25,000            |
| 27       | Flooding         | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low             | 2008-2010                   | Local Resources                  | County EMO                   | County Highway, Municipalities        | Staff Time          |
| 28       | Flooding         | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.  | Med.            | 2008-Ongoing                | FEMA                             | Municipalities               | SWCD                                  | TBD*                |
| 29       | Flooding         | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant.                                | Med.            | 2008-Ongoing                | FEMA                             | Municipalities               | SWCD                                  | TBD*                |
| 30       | Flooding         | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).  | Med.            | Ongoing                     | Local Resources                  | All Municipalities           |                                       | Staff Time          |
| 31       | Flooding         | Public Education & Awareness | Disclose risks of flood zones to property owners.   | Low             | 2008-Ongoing                | Local Resources                  | Municipalities               | County Planning, County EMO           | Staff Time          |
| 32       | Flooding         | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low             | 2008-Ongoing                | FEMA                             | SWCD                         | Municipalities, County Planning       | \$25,000            |
| 33       | Flooding         | Public Education & Awareness | Develop a process through which property owners provide information to the county and to adjacent homeowners when they drastically change their drainage.   | Med.            | 2008-2010                   | FEMA                             | SWCD                         | County Planning                       | \$25,000            |
| 34       | Flooding         | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med             | 2008-2010                   | FEMA                             | SWCD                         | Municipalities, County Highway        | \$50,000            |
| 35       | Flooding,        | Prevention                   | Carry out a countywide  | Low             | 2008-2010                   | NDSP,                            | County                       | County Planning,                      | \$50,000            |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                     |  |      |              |                       |                |                      |            |
|----|---|---------------------|--|------|--------------|-----------------------|----------------|----------------------|------------|
|    | Dam Failure   |                     | assessment of dam safety conditions.   |      |              | NYS DEC               | EMO            | SWCD                 |            |
| 36 | Flooding, Dam Failure   | Structural Projects | Replace faulty flood control devices.  | Low  | 2008-Ongoing | Local Resources, NDSP | Dam Owners     | Municipalities, SWCD | TBD        |
| 37 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention          | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground. | Med. | 2008-2012    | NYS DOS               | Municipalities | County Planning,     | Staff Time |

| #  | Hazard(s)   | Category            | Mitigation Measure   | Priority | Estimated Time Frame | Potential Funding Sources               | Potential Lead Agency | Involved Agencies   | Approx. Cost |
|----|---|---------------------|--|----------|----------------------|---|-----------------------|---|--------------|
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services  | Develop and maintain an inventory of critical facilities with backup power generators.   | Med.     | 2008-2010            | Local Resources                         | County EMO            | Municipalities  | Staff Time   |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services  | Obtain backup power generators and/or provide backup emergency electric service to critical facilities and evacuation shelters.  | High     | 2008-Ongoing         | Local Resources, State & Federal Grants | County EMO            | Select Municipalities, Interested County Agencies                 | TBD          |
| 40 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services  | Support community programs to assist elderly and vulnerable populations during utility failures.   | High     | 2008-Ongoing         | Staff Time                              | County EMO            | DSS, Office for the Aging, County Health                          | Staff Time   |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services  | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. | Low      | 2008-2012            | Local Resources, FEMA                   | County EMO            | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD          |
| 42 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Property Protection | Require the use of hazard resistant construction.  | Med.     | 2008-Ongoing         | Local Resources                         | All Municipalities    |   | Staff Time   |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Property Protection | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.                                       | Med.     | 2008-2012            | Local Resources                         | All Municipalities    |   | Staff Time   |
| 44 | Earthquake  | Prevention          | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY.                          | Med.     | 2008-2012            | Local Resources                         | Municipalities        | County Planning, MCEER  | Staff Time   |
| 45 | Earthquake  | Prevention          | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.  | Med.     | 2008-2012            | FEMA                                    | County EMO            | Municipalities, County Highway, MCEER                             | TBD          |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|          |                            |                              |  |                 |                             |                                  |                              |   |                     |
|----------|----------------------------|------------------------------|--|-----------------|-----------------------------|----------------------------------|------------------------------|---|---------------------|
| 46       | Earthquake                 | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.  | Low             | 2008-Ongoing                | FEMA                             | County EMO                   | Municipalities, MCEER                     | \$10,000            |
| 47       | Fire                       | Prevention                   | Establish and maintain an inventory of the existing wet and dry hydrant locations, and develop an understanding of future development needs. | High            | 2008-2010                   | U.S. Fire Admin.                 | County EMO                   | Local Fire Depts., County Planning        | \$25,000            |
| 48       | Fire                       | Property Protection          | Standardize fire inspections, by working towards inspecting every three years.   | Low             | 2008-Ongoing                | Local Resources                  | County EMO                   | Local Fire Depts.                         | Staff Time          |
| <b>#</b> | <b>Hazard(s)</b>           | <b>Category</b>              | <b>Mitigation Measure</b>  | <b>Priority</b> | <b>Estimated Time Frame</b> | <b>Potential Funding Sources</b> | <b>Potential Lead Agency</b> | <b>Involved Agencies</b>                  | <b>Approx. Cost</b> |
| 49       | Fire                       | Property Protection          | Require containment construction for structures not currently mandated to meet code.   | Low             | 2008-2010                   | Local Resources                  | County EMO                   | Municipalities, Local Fire Depts.         | Staff Time          |
| 50       | Fire                       | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.              | Low             | 2008-2010                   | Local Resources                  | County EMO                   | Municipalities, Local Fire Depts.         | Staff Time          |
| 51       | Water Supply Contamination | Prevention                   | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                | High            | 2008-2010                   | NYS DOS                          | Municipalities               | County Planning, SWCD                     | \$25,000            |
| 52       | Water Supply Contamination | Prevention                   | Enforce separation of water wells from manure storage.   | High            | 2008-2010                   | Local Resources                  | Municipalities               | SWCD                                      | Staff Time          |
| 53       | Water Supply Contamination | Property Protection          | Develop a program to provide free testing of water wells.  | High            | 2008-2010                   | Local Resources                  | County Health                | Municipalities                            | Staff Time          |
| 54       | Water Supply Contamination | Property Protection          | Review security capabilities at water facilities and identify means of improving security.   | High            | 2008-2010                   | Local Resources                  | Area Water Providers         | County EMO, County Sheriff                | Staff Time          |
| 55       | Water Supply Contamination | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.                       | High            | 2008-2010                   | NYS DOS, US EPA                  | County Health                | SWCD, Municipalities                      | TBD                 |
| 56       | Hazardous Materials        | Prevention                   | Ensure proper hazardous material plans are in place for companies that handle hazardous materials.   | Med.            | 2008-2012                   | Local Resources                  | County EMO                   | Relevant Companies                        | Staff Time          |
| 57       | Hazardous Materials        | Public Education & Awareness | Ensure that municipal boards and officials are aware of the location of all major underground pipelines.                                     | Low             | 2008-2010                   | Local Resources                  | County EMO                   | County Planning, County Health, Utilities | Staff Time          |
| 58       | Hazardous Materials        | Natural Resource Protection  | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.                           | Low             | 2008-2012                   | Staff Time                       | County Health                | Municipalities, SWCD                      | Staff Time          |
| 59       | Trans. Accidents           | Prevention                   | Inventory chronic traffic signal problems.   | Med.            | 2008-2010                   | GTC                              | County Highway               | NYSDOT, County Sheriff, Municipalities    | \$50,000            |
| 60       | Trans. Accidents           | Prevention                   | Carry out a countywide survey of dangerous   | Med             | 2008-2010                   | GTC                              | County Highway               | NYSDOT, County Sheriff,                   | \$50,000            |

|    |           |                              | intersections.  |      |              |                  |            | Municipalities                           |            |
|----|-----------|------------------------------|---|------|--------------|------------------|------------|--|------------|
| 61 | Terrorism | Prevention                   | Support federal, state, county and local efforts to increase public awareness of terrorism. | Low  | 2008-Ongoing | Local Resources  | County EMO | NYS Police, County Sheriff, Local Police | Staff Time |
| 62 | Terrorism | Emergency Services           | Regularly conduct and review an emergency response capability assessment.                   | High | 2008-Ongoing | NYS OHS          | County EMO | NYS Police, County Sheriff, Local Police | Staff Time |
| 63 | Wildfire  | Public Education & Awareness | Educate the public on wildfire dangers.   | Low  | 2008-Ongoing | U.S. Fire Admin. | County EMO | Local Fire Depts.                        | Staff Time |
| 64 | Wildfire  | Emergency Services           | Work to ensure a reliable source of water for fire suppression.                             | Low  | 2008-2012    | U.S. Fire Admin. | County EMO | Local Fire Depts.                        | TBD        |

TBD: To Be Determined

### SECTION 8.7: MITIGATION MEASURES – MUNICIPAL ACTION PLANS

The following tables outline Genesee County’s municipal hazard mitigation action plans. Each of Genesee County’s twenty-one municipalities was asked to identify projects from the countywide list that the municipality would undertake as part of its hazard mitigation program. In addition, each municipality was asked to identify projects that it would actively collaborate with a lead county agency to accomplish.

Each municipality has two tables – the first table lists the mitigation projects that the municipality will take the lead on, and the second table lists the mitigation projects that the municipality will actively collaborate with a lead county agency to accomplish.

Like the countywide action plan above, these tables are designed to be revised and updated on an annual basis to reflect completed projects, redesigned projects, and newly proposed projects.

The headings and contents of each column in this table should be understood as follows:

**#** – Refers to the number assigned to each mitigation measure in the above Master List. Mitigation Measure Number 1 on the Master List is also Number 1 in the table, and so on.

**Category** – Refers to one of the six categories laid out by FEMA into which mitigation measures can be grouped. Each mitigation measure in this plan is assigned to one of these categories.

**Hazard** – Refers to the hazard/s that the mitigation measure is intended to address. When “All” appears under this heading, the mitigation measure applies to all potential hazards.

**Mitigation Measure** – The abbreviated Mitigation Measure from the Master List.

**Municipal (Muni.) Priority** – Refers to the order in which the mitigation measures will be implemented on a *municipal* scale. High priority mitigation measures will be carried out first, followed by Medium and then Low priority measures.

**Estimated Time Frame** – Refers to the estimated time period during which the mitigation measure should ideally be implemented.

**Potential Funding Sources** – The Department, Agency, Municipality, or organization from which funding to carry out a mitigation measure may be obtained.

**Approximate Cost** – The estimated cost of carrying out the mitigation measures. This figure is a suggested *estimate* and should be interpreted as a guide, rather than as a definitive cost statement.

Where insufficient information was available to provide a reasonable estimate, costs will be included in future revisions of this plan as additional information becomes available.

**Action Plan – Town of Alabama**

| <b>Town of Alabama Mitigation Measures (Town Lead Projects)*</b>       |   |                              |  |                |                      |                           |                       |                                       |              |
|--|---|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|---------------------------------------|--------------|
| *The Town of Alabama will implement the following mitigation projects. |   |                              |  |                |                      |                           |                       |                                       |              |
| #  | Hazard(s)   | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                     | Approx. Cost |
| 23   | Flooding  | Prevention                   | Municipal officials should begin implementing the municipal flood/drainage mitigation programs included within the Genesee County Flood Mitigation Plan.               | Med.           | 2008-Ongoing         | Local Resources, FEMA     | Municipalities        | SWCD, County Planning, County Highway | TBD          |
| 25   | Flooding  | Property Protection          | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD                 | Staff Time   |
| 26   | Flooding  | Property Protection          | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD                 | \$25,000     |
| 28   | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 29   | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 30   | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med.           | Ongoing              | Local Resources           | All Municipalities    |                                       | Staff Time   |
| 31   | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low            | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, County EMO           | Staff Time   |
| 37   | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med.           | 2008-2012            | NYS DOS                   | Municipalities        | County Planning,                      | Staff Time   |
| 42   | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Property Protection          | Require the use of hazard resistant construction.  | Med.           | 2008-Ongoing         | Local Resources           | All Municipalities    |                                       | Staff Time   |
| 43   | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.                         | Med.           | 2008-2012            | Local Resources           | All Municipalities    |                                       | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                            |                             |   |      |           |                 |                |                        |            |
|----|----------------------------|-----------------------------|---|------|-----------|-----------------|----------------|------------------------|------------|
| 44 | Earthquake                 | Prevention                  | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012 | Local Resources | Municipalities | County Planning, MCEER | Staff Time |
| 51 | Water Supply Contamination | Prevention                  | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010 | NYS DOS         | Municipalities | County Planning, SWCD  | \$25,000   |
| 52 | Water Supply Contamination | Prevention                  | Enforce separation of water wells from manure storage.  | High | 2008-2010 | Local Resources | Municipalities | SWCD                   | Staff Time |
| 58 | Hazardous Materials        | Natural Resource Protection | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012 | Staff Time      | Municipalities | SWCD                   | Staff Time |

| <b>Town of Alabama Mitigation Measures (County Lead Projects)*</b>   |           |                              |  |                |                      |                           |                       |  |              |
|--|-----------|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|--|--------------|
| *The Town of Alabama will collaborate with a County Department/Agency to implement the following projects. |           |                              |  |                |                      |                           |                       |  |              |
| #  | Hazard(s) | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies  | Approx. Cost |
| 1  | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE          | TBD          |
| 2  | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                                       | TBD          |
| 4  | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health                      | \$50,000     |
| 5  | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies                     | Staff Time   |
| 6  | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.           | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency                   | TBD          |
| 7  | All       | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 8  | All       | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 9  | All       | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.                | Med.           | 2008-2012            | FEMA                      | County EMO            | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000     |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |   |                 |   |            |
|----|---|------------------------------|---|------|--------------|---|-----------------|---|------------|
| 10 | All   | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,                        | County Planning | Municipalities, County EMO  | \$50,000   |
| 18 | All   | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                                    | SWCD            | Municipalities  | \$25,000   |
| 21 | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources                         | County EMO      | Municipalities, County Planning                                   | Staff Time |
| 22 | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS                                 | County Planning | Municipalities, SWCD  | \$25,000   |
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources                         | County EMO      | County Highway, Municipalities                                    | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                                    | SWCD            | Municipalities, County Planning                                   | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                                    | SWCD            | Municipalities, County Highway                                    | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners      | Municipalities, SWCD  | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.  | Med. | 2008-2010    | Local Resources                         | County EMO      | Municipalities  | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.                       | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO      | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities.                  | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO      | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.   | Med. | 2008-2012    | FEMA                                    | County EMO      | Municipalities, County Highway, MCEER                             | TBD        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                            |                              |   |      |              |                 |                |  |            |
|----|----------------------------|------------------------------|---|------|--------------|-----------------|----------------|--|------------|
| 46 | Earthquake                 | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.                                 | Low  | 2008-Ongoing | FEMA            | County EMO     | Municipalities, MCEER                  | \$10,000   |
| 49 | Fire                       | Property Protection          | Require containment construction for structures not currently mandated to meet code.  | Low  | 2008-2010    | Local Resources | County EMO     | Municipalities, Local Fire Depts.      | Staff Time |
| 50 | Fire                       | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station. | Low  | 2008-2010    | Local Resources | County EMO     | Municipalities, Local Fire Depts.      | Staff Time |
| 53 | Water Supply Contamination | Property Protection          | Develop a program to provide free testing of water wells.   | High | 2008-2010    | Local Resources | County Health  | Municipalities                         | Staff Time |
| 55 | Water Supply Contamination | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.          | High | 2008-2010    | NYS DOS, US EPA | SWCD           | Municipalities                         | TBD        |
| 59 | Trans. Accidents           | Prevention                   | Inventory chronic traffic signal problems.  | Med. | 2008-2010    | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000   |
| 60 | Trans. Accidents           | Prevention                   | Carry out a countywide survey of dangerous intersections.   | Med  | 2008-2010    | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000   |

**Action Plan – Town of Alexander**

| <b>Town of Alexander Mitigation Measures (Town Lead Projects)*</b>       |           |                     |  |                |                      |                           |                       |                                       |              |
|--|-----------|---------------------|--|----------------|----------------------|---------------------------|-----------------------|---------------------------------------|--------------|
| *The Town of Alexander will implement the following mitigation projects. |           |                     |  |                |                      |                           |                       |                                       |              |
| #  | Hazard(s) | Category            | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                     | Approx. Cost |
| 23   | Flooding  | Prevention          | Municipal officials should begin implementing the municipal flood/drainage mitigation programs included within the Genesee County Flood Mitigation Plan.               | Med.           | 2008-Ongoing         | Local Resources, FEMA     | Municipalities        | SWCD, County Planning, County Highway | TBD          |
| 25   | Flooding  | Property Protection | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD                 | Staff Time   |
| 26   | Flooding  | Property Protection | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD                 | \$25,000     |
| 28   | Flooding  | Property Protection | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 29   | Flooding  | Property Protection | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 30   | Flooding  | Property Protection | Continue participation in the National Flood Insurance Program (NFIP).   | Med.           | Ongoing              | Local Resources           | All Municipalities    |                                       | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |                 |                    |                             |            |
|----|---|------------------------------|---|------|--------------|-----------------|--------------------|-----------------------------|------------|
| 31 | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.   | Low  | 2008-Ongoing | Local Resources | Municipalities     | County Planning, County EMO | Staff Time |
| 37 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.  | Med. | 2008-2012    | NYS DOS         | Municipalities     | County Planning,            | Staff Time |
| 42 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Require the use of hazard resistant construction.   | Med. | 2008-Ongoing | Local Resources | All Municipalities |                             | Staff Time |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.              | Med. | 2008-2012    | Local Resources | All Municipalities |                             | Staff Time |
| 44 | Earthquake  | Prevention                   | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012    | Local Resources | Municipalities     | County Planning, MCEER      | Staff Time |
| 51 | Water Supply Contamination                                      | Prevention                   | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD       | \$25,000   |
| 52 | Water Supply Contamination                                      | Prevention                   | Enforce separation of water wells from manure storage.  | High | 2008-2010    | Local Resources | Municipalities     | SWCD                        | Staff Time |
| 58 | Hazardous Materials   | Natural Resource Protection  | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012    | Staff Time      | Municipalities     | SWCD                        | Staff Time |

| <b>Town of Alexander Mitigation Measures (County Lead Projects)*</b>   |           |            |  |                |                      |                           |                       |   |              |
|--|-----------|------------|--|----------------|----------------------|---------------------------|-----------------------|---|--------------|
| *The Town of Alexander will collaborate with a County Department/Agency to implement the following projects. |           |            |  |                |                      |                           |                       |   |              |
| #  | Hazard(s) | Category   | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                                     | Approx. Cost |
| 1  | All       | Prevention | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.          | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE | TBD          |
| 2  | All       | Prevention | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character. | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                              | TBD          |
| 4  | All       | Prevention | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health             | \$50,000     |
| 5  | All       | Prevention | Run annual seminars with NYSEMO officials for local  | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested                            | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                          |                              |   |      |              |                       |                 |  |            |
|----|--------------------------|------------------------------|---|------|--------------|-----------------------|-----------------|--|------------|
|    |                          |                              | officials who are interested in obtaining more information on the hazard mitigation grant application process.  |      |              |                       |                 | County Agencies  |            |
| 6  | All                      | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.   | Med. | 2008-Ongoing | FEMA, SEMO, NYS OHS   | County EMO      | Municipalities, any interested county agency                   | TBD        |
| 7  | All                      | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.  | Low  | 2008-Ongoing | NYS DOS               | SCWD            | Municipalities, County Planning                                | Staff Time |
| 8  | All                      | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.  | Low  | 2008-Ongoing | NYS DOS               | SCWD            | Municipalities, County Planning                                | Staff Time |
| 9  | All                      | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.   | Med. | 2008-2012    | FEMA                  | County EMO      | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000   |
| 10 | All                      | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,      | County Planning | Municipalities, County EMO                                     | \$50,000   |
| 18 | All                      | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                  | SWCD            | Municipalities   | \$25,000   |
| 21 | Flooding                 | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources       | County EMO      | Municipalities, County Planning                                | Staff Time |
| 22 | Flooding                 | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS               | County Planning | Municipalities, SWCD   | \$25,000   |
| 27 | Flooding                 | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources       | County EMO      | County Highway, Municipalities                                 | Staff Time |
| 32 | Flooding                 | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                  | SWCD            | Municipalities, County Planning                                | \$25,000   |
| 34 | Flooding                 | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                  | SWCD            | Municipalities, County Highway                                 | \$50,000   |
| 36 | Flooding, Dam Failure    | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP | Dam Owners      | Municipalities, SWCD   | TBD        |
| 38 | Ice Storm, Winter Storm, | Emergency Services           | Develop and maintain an inventory of critical facilities  | Med. | 2008-2010    | Local Resources       | County EMO      | Municipalities   | Staff Time |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |  |      |              |   |                |   |            |
|----|---|------------------------------|--|------|--------------|---|----------------|---|------------|
|    | Severe Storm, Tornado, Utility Failure                          |                              | with backup power generators.  |      |              |   |                |   |            |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.      | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO     | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO     | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.  | Med. | 2008-2012    | FEMA                                    | County EMO     | Municipalities, County Highway, MCEER                             | TBD        |
| 46 | Earthquake  | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.  | Low  | 2008-Ongoing | FEMA                                    | County EMO     | Municipalities, MCEER   | \$10,000   |
| 49 | Fire  | Property Protection          | Require containment construction for structures not currently mandated to meet code.   | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50 | Fire  | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.  | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53 | Water Supply Contamination                                      | Property Protection          | Develop a program to provide free testing of water wells.  | High | 2008-2010    | Local Resources                         | County Health  | Municipalities  | Staff Time |
| 55 | Water Supply Contamination                                      | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.   | High | 2008-2010    | NYS DOS, US EPA                         | SWCD           | Municipalities  | TBD        |
| 59 | Trans. Accidents  | Prevention                   | Inventory chronic traffic signal problems.   | Med. | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |
| 60 | Trans. Accidents  | Prevention                   | Carry out a countywide survey of dangerous intersections.  | Med  | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |

**Action Plan – Village of Alexander**

| <b>Village of Alexander Mitigation Measures (Village Lead Projects)*</b>    |           |            |   |                |                      |                           |                       |                                       |              |
|---|-----------|------------|---|----------------|----------------------|---------------------------|-----------------------|---------------------------------------|--------------|
| *The Village of Alexander will implement the following mitigation projects. |           |            |   |                |                      |                           |                       |                                       |              |
| #   | Hazard(s) | Category   | Mitigation Measure  | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                     | Approx. Cost |
| 23  | Flooding  | Prevention | Municipal officials should begin implementing the municipal flood/drainage mitigation programs included | Med.           | 2008-Ongoing         | Local Resources, FEMA     | Municipalities        | SWCD, County Planning, County Highway | TBD          |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |  |      |              |                 |                    |                             |            |
|----|---|------------------------------|--|------|--------------|-----------------|--------------------|-----------------------------|------------|
|    |   |                              | within the Genesee County Flood Mitigation Plan.   |      |              |                 |                    |                             |            |
| 25 | Flooding  | Property Protection          | Raise awareness of and enforce existing floodplain regulations.  | Med. | 2008-Ongoing | Local Resources | Municipalities     | County Planning, SWCD       | Staff Time |
| 26 | Flooding  | Property Protection          | Raise minimum residential elevations required in flood prone areas.  | Low  | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD       | \$25,000   |
| 28 | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med. | 2008-Ongoing | FEMA            | Municipalities     | SWCD                        | TBD*       |
| 29 | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med. | 2008-Ongoing | FEMA            | Municipalities     | SWCD                        | TBD*       |
| 30 | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med. | Ongoing      | Local Resources | All Municipalities |                             | Staff Time |
| 31 | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low  | 2008-Ongoing | Local Resources | Municipalities     | County Planning, County EMO | Staff Time |
| 37 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med. | 2008-2012    | NYS DOS         | Municipalities     | County Planning,            | Staff Time |
| 42 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Require the use of hazard resistant construction.  | Med. | 2008-Ongoing | Local Resources | All Municipalities |                             | Staff Time |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.                         | Med. | 2008-2012    | Local Resources | All Municipalities |                             | Staff Time |
| 44 | Earthquake  | Prevention                   | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY.            | Med. | 2008-2012    | Local Resources | Municipalities     | County Planning, MCEER      | Staff Time |
| 51 | Water Supply Contamination                                      | Prevention                   | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.  | High | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD       | \$25,000   |
| 52 | Water Supply Contamination                                      | Prevention                   | Enforce separation of water wells from manure storage.   | High | 2008-2010    | Local Resources | Municipalities     | SWCD                        | Staff Time |
| 58 | Hazardous Materials   | Natural Resource Protection  | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.   | Low  | 2008-2012    | Staff Time      | Municipalities     | SWCD                        | Staff Time |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

| <b>Village of Alexander Mitigation Measures (County Lead Projects)*</b>   |           |                              |  |                |                      |                           |                       |  |              |
|---|-----------|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|--|--------------|
| *The Village of Alexander will collaborate with a County Department/Agency to implement the following projects. |           |                              |  |                |                      |                           |                       |  |              |
| #   | Hazard(s) | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies  | Approx. Cost |
| 1   | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE          | TBD          |
| 2   | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                                       | TBD          |
| 4   | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health                      | \$50,000     |
| 5   | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies                     | Staff Time   |
| 6   | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.           | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency                   | TBD          |
| 7   | All       | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 8   | All       | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 9   | All       | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.                | Med.           | 2008-2012            | FEMA                      | County EMO            | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000     |
| 10  | All       | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.  | Med.           | 2008-2010            | NYS DOS, NYSARA,          | County Planning       | Municipalities, County EMO                                     | \$50,000     |
| 18  | All       | Emergency Services           | Prepare a countywide inventory of manure storage facilities.   | Low            | 2008-2010            | USDA                      | SWCD                  | Municipalities   | \$25,000     |
| 21  | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).  | High           | 2008-2010            | Local Resources           | County EMO            | Municipalities, County Planning                                | Staff Time   |
| 22  | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, SWCD   | \$25,000     |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |   |               |   |            |
|----|---|------------------------------|---|------|--------------|---|---------------|---|------------|
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources                         | County EMO    | County Highway, Municipalities                                    | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                                    | SWCD          | Municipalities, County Planning                                   | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                                    | SWCD          | Municipalities, County Highway                                    | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners    | Municipalities, SWCD  | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.  | Med. | 2008-2010    | Local Resources                         | County EMO    | Municipalities  | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.                       | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO    | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities.                  | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO    | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.   | Med. | 2008-2012    | FEMA                                    | County EMO    | Municipalities, County Highway, MCEER                             | TBD        |
| 46 | Earthquake  | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.   | Low  | 2008-Ongoing | FEMA                                    | County EMO    | Municipalities, MCEER   | \$10,000   |
| 49 | Fire  | Property Protection          | Require containment construction for structures not currently mandated to meet code.  | Low  | 2008-2010    | Local Resources                         | County EMO    | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50 | Fire  | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.   | Low  | 2008-2010    | Local Resources                         | County EMO    | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53 | Water Supply Contamination                                      | Property Protection          | Develop a program to provide free testing of water wells.   | High | 2008-2010    | Local Resources                         | County Health | Municipalities  | Staff Time |
| 55 | Water Supply Contamination                                      | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect  | High | 2008-2010    | NYS DOS, US EPA                         | SWCD          | Municipalities  | TBD        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                  |            |   |      |           |     |                |  |          |
|----|------------------|------------|---|------|-----------|-----|----------------|--|----------|
|    |                  |            | wellheads from water contamination.                       |      |           |     |                |  |          |
| 59 | Trans. Accidents | Prevention | Inventory chronic traffic signal problems.                | Med. | 2008-2010 | GTC | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000 |
| 60 | Trans. Accidents | Prevention | Carry out a countywide survey of dangerous intersections. | Med  | 2008-2010 | GTC | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000 |

**Action Plan – Village of Attica\***

\*The Village of Attica straddles the Genesee/Wyoming County border. The Village participated in the Wyoming County All-Hazard Mitigation Plan, but chose not to actively participate in the development of the Genesee County All-Hazard Mitigation Plan. Please refer to the Wyoming County All-Hazard Mitigation Plan for Attica’s Hazard Mitigation Action Plan.

**Action Plan – City of Batavia**

| <b>City of Batavia Mitigation Measures (City Lead Projects)*</b>       |   |                              |  |                |                      |                           |                       |                                       |              |
|--|---|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|---------------------------------------|--------------|
| *The City of Batavia will implement the following mitigation projects. |   |                              |  |                |                      |                           |                       |                                       |              |
| #  | Hazard(s)   | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                     | Approx. Cost |
| 23   | Flooding  | Prevention                   | Municipal officials should begin implementing the municipal flood/drainage mitigation programs included within the Genesee County Flood Mitigation Plan.               | Med.           | 2008-Ongoing         | Local Resources, FEMA     | Municipalities        | SWCD, County Planning, County Highway | TBD          |
| 25   | Flooding  | Property Protection          | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD                 | Staff Time   |
| 26   | Flooding  | Property Protection          | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD                 | \$25,000     |
| 28   | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 29   | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 30   | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med.           | Ongoing              | Local Resources           | All Municipalities    |                                       | Staff Time   |
| 31   | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low            | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, County EMO           | Staff Time   |
| 37   | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med.           | 2008-2012            | NYS DOS                   | Municipalities        | County Planning,                      | Staff Time   |
| 42   | Ice Storm, Winter Storm,  | Property Protection          | Require the use of hazard resistant construction.  | Med.           | 2008-Ongoing         | Local Resources           | All Municipalities    |                                       | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |  |                             |   |      |           |                 |                    |                        |            |
|----|--|-----------------------------|---|------|-----------|-----------------|--------------------|------------------------|------------|
|    | Severe Storm, Tornado Utility Failure                          |                             |   |      |           |                 |                    |                        |            |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure | Property Protection         | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.              | Med. | 2008-2012 | Local Resources | All Municipalities |                        | Staff Time |
| 44 | Earthquake   | Prevention                  | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012 | Local Resources | Municipalities     | County Planning, MCEER | Staff Time |
| 51 | Water Supply Contamination                                     | Prevention                  | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010 | NYS DOS         | Municipalities     | County Planning, SWCD  | \$25,000   |
| 52 | Water Supply Contamination                                     | Prevention                  | Enforce separation of water wells from manure storage.  | High | 2008-2010 | Local Resources | Municipalities     | SWCD                   | Staff Time |
| 58 | Hazardous Materials  | Natural Resource Protection | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012 | Staff Time      | Municipalities     | SWCD                   | Staff Time |

| <b>City of Batavia Mitigation Measures (County Lead Projects)*</b>   |           |                              |  |                |                      |                           |                       |   |              |
|--|-----------|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|---|--------------|
| *The City of Batavia will collaborate with a County Department/Agency to implement the following projects. |           |                              |  |                |                      |                           |                       |   |              |
| #  | Hazard(s) | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                                     | Approx. Cost |
| 1  | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE | TBD          |
| 2  | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                              | TBD          |
| 4  | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health             | \$50,000     |
| 5  | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies            | Staff Time   |
| 6  | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.           | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency          | TBD          |
| 7  | All       | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                       | Staff Time   |
| 8  | All       | Natural                      | Encourage the revision of  | Low            | 2008-                | NYS DOS                   | SCWD                  | Municipalities,                                       | Staff        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |   |                 |  |            |
|----|---|------------------------------|---|------|--------------|---|-----------------|--|------------|
|    |   | Resource Protection          | local laws to include measures for erosion and sediment control.  |      | Ongoing      |   |                 | County Planning  | Time       |
| 9  | All   | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.   | Med. | 2008-2012    | FEMA                                    | County EMO      | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000   |
| 10 | All   | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,                        | County Planning | Municipalities, County EMO                                     | \$50,000   |
| 18 | All   | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                                    | SWCD            | Municipalities   | \$25,000   |
| 21 | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources                         | County EMO      | Municipalities, County Planning                                | Staff Time |
| 22 | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS                                 | County Planning | Municipalities, SWCD   | \$25,000   |
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources                         | County EMO      | County Highway, Municipalities                                 | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                                    | SWCD            | Municipalities, County Planning                                | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                                    | SWCD            | Municipalities, County Highway                                 | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners      | Municipalities, SWCD   | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.  | Med. | 2008-2010    | Local Resources                         | County EMO      | Municipalities   | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.                       | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO      | Select Municipalities, Interested County Agencies              | TBD        |
| 41 | Ice Storm, Winter Storm,  | Emergency Services           | Enhance the emergency notification system by  | Low  | 2008-2012    | Local Resources,                        | County EMO      | Municipalities, CSDs, County                                   | TBD        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                                       |                              |   |      |              |                 |                |  |            |
|----|---------------------------------------|------------------------------|---|------|--------------|-----------------|----------------|--|------------|
|    | Severe Storm, Tornado Utility Failure |                              | encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. |      |              | FEMA            |                | Health, County Sheriff, Local Police   |            |
| 45 | Earthquake                            | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.   | Med. | 2008-2012    | FEMA            | County EMO     | Municipalities, County Highway, MCEER  | TBD        |
| 46 | Earthquake                            | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.   | Low  | 2008-Ongoing | FEMA            | County EMO     | Municipalities, MCEER                  | \$10,000   |
| 49 | Fire                                  | Property Protection          | Require containment construction for structures not currently mandated to meet code.  | Low  | 2008-2010    | Local Resources | County EMO     | Municipalities, Local Fire Depts.      | Staff Time |
| 50 | Fire                                  | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.         | Low  | 2008-2010    | Local Resources | County EMO     | Municipalities, Local Fire Depts.      | Staff Time |
| 53 | Water Supply Contamination            | Property Protection          | Develop a program to provide free testing of water wells.   | High | 2008-2010    | Local Resources | County Health  | Municipalities                         | Staff Time |
| 55 | Water Supply Contamination            | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.                  | High | 2008-2010    | NYS DOS, US EPA | SWCD           | Municipalities                         | TBD        |
| 59 | Trans. Accidents                      | Prevention                   | Inventory chronic traffic signal problems.  | Med. | 2008-2010    | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000   |
| 60 | Trans. Accidents                      | Prevention                   | Carry out a countywide survey of dangerous intersections.   | Med  | 2008-2010    | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000   |

**Action Plan – Town of Batavia**

| <b>Town of Batavia Mitigation Measures (Town Lead Projects)*</b>       |           |                     |  |                |                      |                           |                       |                                       |              |
|--|-----------|---------------------|--|----------------|----------------------|---------------------------|-----------------------|---------------------------------------|--------------|
| *The Town of Batavia will implement the following mitigation projects. |           |                     |  |                |                      |                           |                       |                                       |              |
| #  | Hazard(s) | Category            | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                     | Approx. Cost |
| 23   | Flooding  | Prevention          | Municipal officials should begin implementing the municipal flood/drainage mitigation programs included within the Genesee County Flood Mitigation Plan. | Med.           | 2008-Ongoing         | Local Resources, FEMA     | Municipalities        | SWCD, County Planning, County Highway | TBD          |
| 25   | Flooding  | Property Protection | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD                 | Staff Time   |
| 26   | Flooding  | Property Protection | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD                 | \$25,000     |
| 28   | Flooding  | Property Protection | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 29   | Flooding  | Property            | Assist flood prone   | Med.           | 2008-                | FEMA                      | Municipalities        | SWCD                                  | TBD*         |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |                 |                    |                             |            |
|----|---|------------------------------|---|------|--------------|-----------------|--------------------|-----------------------------|------------|
|    |   | Protection                   | homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant.         |      | Ongoing      |                 |                    |                             |            |
| 30 | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).  | Med. | Ongoing      | Local Resources | All Municipalities |                             | Staff Time |
| 31 | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.   | Low  | 2008-Ongoing | Local Resources | Municipalities     | County Planning, County EMO | Staff Time |
| 37 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.  | Med. | 2008-2012    | NYS DOS         | Municipalities     | County Planning,            | Staff Time |
| 42 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Require the use of hazard resistant construction.   | Med. | 2008-Ongoing | Local Resources | All Municipalities |                             | Staff Time |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.              | Med. | 2008-2012    | Local Resources | All Municipalities |                             | Staff Time |
| 44 | Earthquake  | Prevention                   | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012    | Local Resources | Municipalities     | County Planning, MCEER      | Staff Time |
| 51 | Water Supply Contamination                                      | Prevention                   | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD       | \$25,000   |
| 52 | Water Supply Contamination                                      | Prevention                   | Enforce separation of water wells from manure storage.  | High | 2008-2010    | Local Resources | Municipalities     | SWCD                        | Staff Time |
| 58 | Hazardous Materials   | Natural Resource Protection  | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012    | Staff Time      | Municipalities     | SWCD                        | Staff Time |

| <b>Town of Batavia Mitigation Measures (County Lead Projects)*</b>   |           |            |  |                |                      |                           |                       |   |              |
|--|-----------|------------|--|----------------|----------------------|---------------------------|-----------------------|---|--------------|
| *The Town of Batavia will collaborate with a County Department/Agency to implement the following projects. |           |            |  |                |                      |                           |                       |   |              |
| #  | Hazard(s) | Category   | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                                     | Approx. Cost |
| 1  | All       | Prevention | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.          | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE | TBD          |
| 2  | All       | Prevention | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character. | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                              | TBD          |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |          |                              |   |      |              |                     |                 |  |            |
|----|----------|------------------------------|---|------|--------------|---------------------|-----------------|--|------------|
| 4  | All      | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.   | Med. | 2008-2010    | NYS DOS             | County Planning | Municipalities, County EMO, County Health                      | \$50,000   |
| 5  | All      | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process.                                    | Med. | 2008-Ongoing | Local Resources     | County EMO      | Municipalities, Interested County Agencies                     | Staff Time |
| 6  | All      | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.   | Med. | 2008-Ongoing | FEMA, SEMO, NYS OHS | County EMO      | Municipalities, any interested county agency                   | TBD        |
| 7  | All      | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.  | Low  | 2008-Ongoing | NYS DOS             | SCWD            | Municipalities, County Planning                                | Staff Time |
| 8  | All      | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.  | Low  | 2008-Ongoing | NYS DOS             | SCWD            | Municipalities, County Planning                                | Staff Time |
| 9  | All      | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.   | Med. | 2008-2012    | FEMA                | County EMO      | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000   |
| 10 | All      | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,    | County Planning | Municipalities, County EMO                                     | \$50,000   |
| 18 | All      | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                | SWCD            | Municipalities   | \$25,000   |
| 21 | Flooding | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources     | County EMO      | Municipalities, County Planning                                | Staff Time |
| 22 | Flooding | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS             | County Planning | Municipalities, SWCD   | \$25,000   |
| 27 | Flooding | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources     | County EMO      | County Highway, Municipalities                                 | Staff Time |
| 32 | Flooding | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                | SWCD            | Municipalities, County Planning                                | \$25,000   |
| 34 | Flooding | Natural                      | Develop a plan to correct   | Med  | 2008-2010    | FEMA                | SWCD            | Municipalities,  | \$50,000   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |  |      |              |   |                |   |            |
|----|---|------------------------------|--|------|--------------|---|----------------|---|------------|
|    |   | Resource Protection          | stream bank erosion.   |      |              |   |                | County Highway  |            |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.  | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners     | Municipalities, SWCD  | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.   | Med. | 2008-2010    | Local Resources                         | County EMO     | Municipalities  | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.      | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO     | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO     | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.  | Med. | 2008-2012    | FEMA                                    | County EMO     | Municipalities, County Highway, MCEER                             | TBD        |
| 46 | Earthquake  | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.  | Low  | 2008-Ongoing | FEMA                                    | County EMO     | Municipalities, MCEER   | \$10,000   |
| 49 | Fire  | Property Protection          | Require containment construction for structures not currently mandated to meet code.   | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50 | Fire  | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.  | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53 | Water Supply Contamination                                      | Property Protection          | Develop a program to provide free testing of water wells.  | High | 2008-2010    | Local Resources                         | County Health  | Municipalities  | Staff Time |
| 55 | Water Supply Contamination                                      | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.   | High | 2008-2010    | NYS DOS, US EPA                         | SWCD           | Municipalities  | TBD        |
| 59 | Trans. Accidents  | Prevention                   | Inventory chronic traffic signal problems.   | Med. | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |
| 60 | Trans. Accidents  | Prevention                   | Carry out a countywide survey of dangerous intersections.  | Med  | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |

**Action Plan – Town of Bergen**

| <b>Town of Bergen Mitigation Measures (Town Lead Projects)*</b>       |   |                              |  |                |                      |                           |                       |                             |              |
|---|---|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|-----------------------------|--------------|
| *The Town of Bergen will implement the following mitigation projects. |   |                              |  |                |                      |                           |                       |                             |              |
| #   | Hazard(s)   | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies           | Approx. Cost |
| 25  | Flooding  | Property Protection          | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD       | Staff Time   |
| 26  | Flooding  | Property Protection          | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD       | \$25,000     |
| 28  | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                        | TBD*         |
| 29  | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                        | TBD*         |
| 30  | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med.           | Ongoing              | Local Resources           | All Municipalities    |                             | Staff Time   |
| 31  | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low            | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, County EMO | Staff Time   |
| 37  | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med.           | 2008-2012            | NYS DOS                   | Municipalities        | County Planning,            | Staff Time   |
| 42  | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Require the use of hazard resistant construction.  | Med.           | 2008-Ongoing         | Local Resources           | All Municipalities    |                             | Staff Time   |
| 43  | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.                         | Med.           | 2008-2012            | Local Resources           | All Municipalities    |                             | Staff Time   |
| 44  | Earthquake  | Prevention                   | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY.            | Med.           | 2008-2012            | Local Resources           | Municipalities        | County Planning, MCEER      | Staff Time   |
| 51  | Water Supply Contamination                                      | Prevention                   | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.  | High           | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD       | \$25,000     |
| 52  | Water Supply Contamination                                      | Prevention                   | Enforce separation of water wells from manure storage.   | High           | 2008-2010            | Local Resources           | Municipalities        | SWCD                        | Staff Time   |
| 58  | Hazardous   | Natural                      | Ensure protection of water   | Low            | 2008-2012            | Staff                     | Municipalities        | SWCD                        | Staff        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|  |           |                     |   |  |  |      |  |  |      |
|--|-----------|---------------------|---|--|--|------|--|--|------|
|  | Materials | Resource Protection | resources and water supplies in the vicinity of facilities housing hazardous materials. |  |  | Time |  |  | Time |
|--|-----------|---------------------|---|--|--|------|--|--|------|

| <b>Town of Bergen Mitigation Measures (County Lead Projects)*</b>   |           |                              |  |                |                      |                           |                       |  |              |
|---|-----------|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|--|--------------|
| *The Town of Bergen will collaborate with a County Department/Agency to implement the following projects. |           |                              |  |                |                      |                           |                       |  |              |
| #   | Hazard(s) | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies  | Approx. Cost |
| 1   | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE          | TBD          |
| 2   | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                                       | TBD          |
| 4   | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health                      | \$50,000     |
| 5   | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies                     | Staff Time   |
| 6   | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.           | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency                   | TBD          |
| 7   | All       | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 8   | All       | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 9   | All       | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.                | Med.           | 2008-2012            | FEMA                      | County EMO            | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000     |
| 10  | All       | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.  | Med.           | 2008-2010            | NYS DOS, NYSARA,          | County Planning       | Municipalities, County EMO                                     | \$50,000     |
| 18  | All       | Emergency Services           | Prepare a countywide inventory of manure storage facilities.   | Low            | 2008-2010            | USDA                      | SWCD                  | Municipalities   | \$25,000     |
| 21  | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).  | High           | 2008-2010            | Local Resources           | County EMO            | Municipalities, County Planning                                | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |   |                 |   |            |
|----|---|------------------------------|---|------|--------------|---|-----------------|---|------------|
| 22 | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS                                 | County Planning | Municipalities, SWCD  | \$25,000   |
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources                         | County EMO      | County Highway, Municipalities                                    | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                                    | SWCD            | Municipalities, County Planning                                   | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                                    | SWCD            | Municipalities, County Highway                                    | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners      | Municipalities, SWCD  | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.  | Med. | 2008-2010    | Local Resources                         | County EMO      | Municipalities  | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.                       | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO      | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities.                  | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO      | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.   | Med. | 2008-2012    | FEMA                                    | County EMO      | Municipalities, County Highway, MCEER                             | TBD        |
| 46 | Earthquake  | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.   | Low  | 2008-Ongoing | FEMA                                    | County EMO      | Municipalities, MCEER   | \$10,000   |
| 49 | Fire  | Property Protection          | Require containment construction for structures not currently mandated to meet code.  | Low  | 2008-2010    | Local Resources                         | County EMO      | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50 | Fire  | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.   | Low  | 2008-2010    | Local Resources                         | County EMO      | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53 | Water Supply  | Property                     | Develop a program to provide  | High | 2008-2010    | Local                                   | County          | Municipalities  | Staff      |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    | Contamination              | Protection                  | free testing of water wells.   |      |           | Resources       | Health         |  | Time     |
|----|----------------------------|-----------------------------|--|------|-----------|-----------------|----------------|--|----------|
| 55 | Water Supply Contamination | Natural Resource Protection | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination. | High | 2008-2010 | NYS DOS, US EPA | SWCD           | Municipalities                         | TBD      |
| 59 | Trans. Accidents           | Prevention                  | Inventory chronic traffic signal problems.   | Med. | 2008-2010 | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000 |
| 60 | Trans. Accidents           | Prevention                  | Carry out a countywide survey of dangerous intersections.  | Med  | 2008-2010 | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000 |

**Action Plan – Village of Bergen**

| <b>Village of Bergen Mitigation Measures (Village Lead Projects)*</b>    |   |                              |  |                |                      |                           |                       |                             |              |
|--|---|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|-----------------------------|--------------|
| *The Village of Bergen will implement the following mitigation projects. |   |                              |  |                |                      |                           |                       |                             |              |
| #  | Hazard(s)   | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies           | Approx. Cost |
| 25   | Flooding  | Property Protection          | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD       | Staff Time   |
| 26   | Flooding  | Property Protection          | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD       | \$25,000     |
| 28   | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                        | TBD*         |
| 29   | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                        | TBD*         |
| 30   | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med.           | Ongoing              | Local Resources           | All Municipalities    |                             | Staff Time   |
| 31   | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low            | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, County EMO | Staff Time   |
| 37   | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med.           | 2008-2012            | NYS DOS                   | Municipalities        | County Planning,            | Staff Time   |
| 42   | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Require the use of hazard resistant construction.  | Med.           | 2008-Ongoing         | Local Resources           | All Municipalities    |                             | Staff Time   |
| 43   | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.                         | Med.           | 2008-2012            | Local Resources           | All Municipalities    |                             | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                            |                             |   |      |           |                 |                |                        |            |
|----|----------------------------|-----------------------------|---|------|-----------|-----------------|----------------|------------------------|------------|
| 44 | Earthquake                 | Prevention                  | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012 | Local Resources | Municipalities | County Planning, MCEER | Staff Time |
| 51 | Water Supply Contamination | Prevention                  | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010 | NYS DOS         | Municipalities | County Planning, SWCD  | \$25,000   |
| 52 | Water Supply Contamination | Prevention                  | Enforce separation of water wells from manure storage.  | High | 2008-2010 | Local Resources | Municipalities | SWCD                   | Staff Time |
| 58 | Hazardous Materials        | Natural Resource Protection | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012 | Staff Time      | Municipalities | SWCD                   | Staff Time |

| <b>Village of Bergen Mitigation Measures (County Lead Projects)*</b>   |           |                              |  |                |                      |                           |                       |  |              |
|--|-----------|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|--|--------------|
| *The Village of Bergen will collaborate with a County Department/Agency to implement the following projects. |           |                              |  |                |                      |                           |                       |  |              |
| #  | Hazard(s) | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies  | Approx. Cost |
| 1  | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE          | TBD          |
| 2  | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                                       | TBD          |
| 4  | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, water, and cable.   | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health                      | \$50,000     |
| 5  | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies                     | Staff Time   |
| 6  | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.           | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency                   | TBD          |
| 7  | All       | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 8  | All       | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 9  | All       | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.                | Med.           | 2008-2012            | FEMA                      | County EMO            | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000     |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |   |                 |   |            |
|----|---|------------------------------|---|------|--------------|---|-----------------|---|------------|
| 10 | All   | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,                        | County Planning | Municipalities, County EMO  | \$50,000   |
| 18 | All   | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                                    | SWCD            | Municipalities  | \$25,000   |
| 21 | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources                         | County EMO      | Municipalities, County Planning                                   | Staff Time |
| 22 | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS                                 | County Planning | Municipalities, SWCD  | \$25,000   |
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources                         | County EMO      | County Highway, Municipalities                                    | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                                    | SWCD            | Municipalities, County Planning                                   | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                                    | SWCD            | Municipalities, County Highway                                    | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners      | Municipalities, SWCD  | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.  | Med. | 2008-2010    | Local Resources                         | County EMO      | Municipalities  | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.                       | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO      | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities.                  | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO      | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.   | Med. | 2008-2012    | FEMA                                    | County EMO      | Municipalities, County Highway, MCEER                             | TBD        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                            |                              |   |      |              |                 |                |  |            |
|----|----------------------------|------------------------------|---|------|--------------|-----------------|----------------|--|------------|
| 46 | Earthquake                 | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.                                 | Low  | 2008-Ongoing | FEMA            | County EMO     | Municipalities, MCEER                  | \$10,000   |
| 49 | Fire                       | Property Protection          | Require containment construction for structures not currently mandated to meet code.  | Low  | 2008-2010    | Local Resources | County EMO     | Municipalities, Local Fire Depts.      | Staff Time |
| 50 | Fire                       | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station. | Low  | 2008-2010    | Local Resources | County EMO     | Municipalities, Local Fire Depts.      | Staff Time |
| 53 | Water Supply Contamination | Property Protection          | Develop a program to provide free testing of water wells.   | High | 2008-2010    | Local Resources | County Health  | Municipalities                         | Staff Time |
| 55 | Water Supply Contamination | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.          | High | 2008-2010    | NYS DOS, US EPA | SWCD           | Municipalities                         | TBD        |
| 59 | Trans. Accidents           | Prevention                   | Inventory chronic traffic signal problems.  | Med. | 2008-2010    | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000   |
| 60 | Trans. Accidents           | Prevention                   | Carry out a countywide survey of dangerous intersections.   | Med  | 2008-2010    | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000   |

**Action Plan – Town of Bethany**

| <b>Town of Bethany Mitigation Measures (Town Lead Projects)*</b>       |           |                     |  |                |                      |                           |                       |                                       |              |
|--|-----------|---------------------|--|----------------|----------------------|---------------------------|-----------------------|---------------------------------------|--------------|
| *The Town of Bethany will implement the following mitigation projects. |           |                     |  |                |                      |                           |                       |                                       |              |
| #  | Hazard(s) | Category            | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                     | Approx. Cost |
| 23   | Flooding  | Prevention          | Municipal officials should begin implementing the municipal flood/drainage mitigation programs included within the Genesee County Flood Mitigation Plan.               | Med.           | 2008-Ongoing         | Local Resources, FEMA     | Municipalities        | SWCD, County Planning, County Highway | TBD          |
| 25   | Flooding  | Property Protection | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD                 | Staff Time   |
| 26   | Flooding  | Property Protection | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD                 | \$25,000     |
| 28   | Flooding  | Property Protection | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 29   | Flooding  | Property Protection | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 30   | Flooding  | Property Protection | Continue participation in the National Flood Insurance Program (NFIP).   | Med.           | Ongoing              | Local Resources           | All Municipalities    |                                       | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |                 |                    |                             |            |
|----|---|------------------------------|---|------|--------------|-----------------|--------------------|-----------------------------|------------|
| 31 | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.   | Low  | 2008-Ongoing | Local Resources | Municipalities     | County Planning, County EMO | Staff Time |
| 37 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.  | Med. | 2008-2012    | NYS DOS         | Municipalities     | County Planning,            | Staff Time |
| 42 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Require the use of hazard resistant construction.   | Med. | 2008-Ongoing | Local Resources | All Municipalities |                             | Staff Time |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.              | Med. | 2008-2012    | Local Resources | All Municipalities |                             | Staff Time |
| 44 | Earthquake  | Prevention                   | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012    | Local Resources | Municipalities     | County Planning, MCEER      | Staff Time |
| 51 | Water Supply Contamination                                      | Prevention                   | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD       | \$25,000   |
| 52 | Water Supply Contamination                                      | Prevention                   | Enforce separation of water wells from manure storage.  | High | 2008-2010    | Local Resources | Municipalities     | SWCD                        | Staff Time |
| 58 | Hazardous Materials   | Natural Resource Protection  | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012    | Staff Time      | Municipalities     | SWCD                        | Staff Time |

| <b>Town of Bethany Mitigation Measures (County Lead Projects)*</b>   |           |            |  |                |                      |                           |                       |   |              |
|--|-----------|------------|--|----------------|----------------------|---------------------------|-----------------------|---|--------------|
| *The Town of Bethany will collaborate with a County Department/Agency to implement the following projects. |           |            |  |                |                      |                           |                       |   |              |
| #  | Hazard(s) | Category   | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                                     | Approx. Cost |
| 1  | All       | Prevention | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.                | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE | TBD          |
| 2  | All       | Prevention | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.       | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                              | TBD          |
| 4  | All       | Prevention | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, water, and cable. | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health             | \$50,000     |
| 5  | All       | Prevention | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information             | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies            | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |                       |                 |  |            |
|----|---|------------------------------|---|------|--------------|-----------------------|-----------------|--|------------|
|    |   |                              | on the hazard mitigation grant application process.   |      |              |                       |                 |  |            |
| 6  | All   | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.   | Med. | 2008-Ongoing | FEMA, SEMO, NYS OHS   | County EMO      | Municipalities, any interested county agency                   | TBD        |
| 7  | All   | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.  | Low  | 2008-Ongoing | NYS DOS               | SCWD            | Municipalities, County Planning                                | Staff Time |
| 8  | All   | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.  | Low  | 2008-Ongoing | NYS DOS               | SCWD            | Municipalities, County Planning                                | Staff Time |
| 9  | All   | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.   | Med. | 2008-2012    | FEMA                  | County EMO      | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000   |
| 10 | All   | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,      | County Planning | Municipalities, County EMO                                     | \$50,000   |
| 18 | All   | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                  | SWCD            | Municipalities   | \$25,000   |
| 21 | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources       | County EMO      | Municipalities, County Planning                                | Staff Time |
| 22 | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS               | County Planning | Municipalities, SWCD   | \$25,000   |
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources       | County EMO      | County Highway, Municipalities                                 | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                  | SWCD            | Municipalities, County Planning                                | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                  | SWCD            | Municipalities, County Highway                                 | \$50,000   |
| 36 | Flooding, Dam Failure                           | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP | Dam Owners      | Municipalities, SWCD   | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.  | Med. | 2008-2010    | Local Resources       | County EMO      | Municipalities   | Staff Time |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |  |      |              |   |                |   |            |
|----|---|------------------------------|--|------|--------------|---|----------------|---|------------|
|    | Utility Failure   |                              |  |      |              |   |                |   |            |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.      | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO     | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO     | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.  | Med. | 2008-2012    | FEMA                                    | County EMO     | Municipalities, County Highway, MCEER                             | TBD        |
| 46 | Earthquake  | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.  | Low  | 2008-Ongoing | FEMA                                    | County EMO     | Municipalities, MCEER   | \$10,000   |
| 49 | Fire  | Property Protection          | Require containment construction for structures not currently mandated to meet code.   | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50 | Fire  | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.  | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53 | Water Supply Contamination                                      | Property Protection          | Develop a program to provide free testing of water wells.  | High | 2008-2010    | Local Resources                         | County Health  | Municipalities  | Staff Time |
| 55 | Water Supply Contamination                                      | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.   | High | 2008-2010    | NYS DOS, US EPA                         | SWCD           | Municipalities  | TBD        |
| 59 | Trans. Accidents  | Prevention                   | Inventory chronic traffic signal problems.   | Med. | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |
| 60 | Trans. Accidents  | Prevention                   | Carry out a countywide survey of dangerous intersections.  | Med  | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |

**Action Plan – Town of Byron**

| <b>Town of Byron Mitigation Measures (Town Lead Projects)*</b>       |           |                     |   |                |                      |                           |                       |                       |              |
|--|-----------|---------------------|---|----------------|----------------------|---------------------------|-----------------------|-----------------------|--------------|
| *The Town of Byron will implement the following mitigation projects. |           |                     |   |                |                      |                           |                       |                       |              |
| #  | Hazard(s) | Category            | Mitigation Measure  | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies     | Approx. Cost |
| 25   | Flooding  | Property Protection | Raise awareness of and enforce existing floodplain regulations.     | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD | Staff Time   |
| 26   | Flooding  | Property Protection | Raise minimum residential elevations required in flood prone areas. | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD | \$25,000     |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |  |      |              |                 |                    |                             |            |
|----|---|------------------------------|--|------|--------------|-----------------|--------------------|-----------------------------|------------|
| 28 | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med. | 2008-Ongoing | FEMA            | Municipalities     | SWCD                        | TBD*       |
| 29 | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med. | 2008-Ongoing | FEMA            | Municipalities     | SWCD                        | TBD*       |
| 30 | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med. | Ongoing      | Local Resources | All Municipalities |                             | Staff Time |
| 31 | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low  | 2008-Ongoing | Local Resources | Municipalities     | County Planning, County EMO | Staff Time |
| 37 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med. | 2008-2012    | NYS DOS         | Municipalities     | County Planning,            | Staff Time |
| 42 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Property Protection          | Require the use of hazard resistant construction.  | Med. | 2008-Ongoing | Local Resources | All Municipalities |                             | Staff Time |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.                         | Med. | 2008-2012    | Local Resources | All Municipalities |                             | Staff Time |
| 44 | Earthquake  | Prevention                   | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY.            | Med. | 2008-2012    | Local Resources | Municipalities     | County Planning, MCEER      | Staff Time |
| 51 | Water Supply Contamination                                      | Prevention                   | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.  | High | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD       | \$25,000   |
| 52 | Water Supply Contamination                                      | Prevention                   | Enforce separation of water wells from manure storage.   | High | 2008-2010    | Local Resources | Municipalities     | SWCD                        | Staff Time |
| 58 | Hazardous Materials   | Natural Resource Protection  | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.   | Low  | 2008-2012    | Staff Time      | Municipalities     | SWCD                        | Staff Time |

| <b>Town of Byron Mitigation Measures (County Lead Projects)*</b>   |           |            |   |                |                      |                           |                       |   |              |
|--|-----------|------------|---|----------------|----------------------|---------------------------|-----------------------|---|--------------|
| *The Town of Byron will collaborate with a County Department/Agency to implement the following projects. |           |            |   |                |                      |                           |                       |   |              |
| #  | Hazard(s) | Category   | Mitigation Measure  | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                                     | Approx. Cost |
| 1  | All       | Prevention | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas. | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE | TBD          |
| 2  | All       | Prevention | Develop a coordinated plan  | Med.           | 2008-2012            | Local                     | County                | Municipalities  | TBD          |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |          |                              |   |      |              |                     |                 |  |            |
|----|----------|------------------------------|---|------|--------------|---------------------|-----------------|--|------------|
|    |          |                              | for tree maintenance that allows for maintaining power and retaining community character.   |      |              | Resources, USDA RUP | Planning        | Utilities  |            |
| 4  | All      | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.   | Med. | 2008-2010    | NYS DOS             | County Planning | Municipalities, County EMO, County Health                      | \$50,000   |
| 5  | All      | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process.                                    | Med. | 2008-Ongoing | Local Resources     | County EMO      | Municipalities, Interested County Agencies                     | Staff Time |
| 6  | All      | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.   | Med. | 2008-Ongoing | FEMA, SEMO, NYS OHS | County EMO      | Municipalities, any interested county agency                   | TBD        |
| 7  | All      | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.  | Low  | 2008-Ongoing | NYS DOS             | SCWD            | Municipalities, County Planning                                | Staff Time |
| 8  | All      | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.  | Low  | 2008-Ongoing | NYS DOS             | SCWD            | Municipalities, County Planning                                | Staff Time |
| 9  | All      | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.   | Med. | 2008-2012    | FEMA                | County EMO      | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000   |
| 10 | All      | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,    | County Planning | Municipalities, County EMO                                     | \$50,000   |
| 18 | All      | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                | SWCD            | Municipalities   | \$25,000   |
| 21 | Flooding | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources     | County EMO      | Municipalities, County Planning                                | Staff Time |
| 22 | Flooding | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS             | County Planning | Municipalities, SWCD   | \$25,000   |
| 27 | Flooding | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources     | County EMO      | County Highway, Municipalities                                 | Staff Time |
| 32 | Flooding | Public Education & Awareness | Provide information for municipal officials and property owners about the   | Low  | 2008-Ongoing | FEMA                | SWCD            | Municipalities, County Planning                                | \$25,000   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |  |      |              |   |                |   |            |
|----|---|------------------------------|--|------|--------------|---|----------------|---|------------|
|    |   |                              | possibility of buying out or raising repetitive loss properties.   |      |              |   |                |   |            |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.   | Med  | 2008-2010    | FEMA                                    | SWCD           | Municipalities, County Highway                                    | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.  | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners     | Municipalities, SWCD  | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.   | Med. | 2008-2010    | Local Resources                         | County EMO     | Municipalities  | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.      | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO     | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO     | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.  | Med. | 2008-2012    | FEMA                                    | County EMO     | Municipalities, County Highway, MCEER                             | TBD        |
| 46 | Earthquake  | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.  | Low  | 2008-Ongoing | FEMA                                    | County EMO     | Municipalities, MCEER   | \$10,000   |
| 49 | Fire  | Property Protection          | Require containment construction for structures not currently mandated to meet code.   | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50 | Fire  | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.  | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53 | Water Supply Contamination                                      | Property Protection          | Develop a program to provide free testing of water wells.  | High | 2008-2010    | Local Resources                         | County Health  | Municipalities  | Staff Time |
| 55 | Water Supply Contamination                                      | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.   | High | 2008-2010    | NYS DOS, US EPA                         | SWCD           | Municipalities  | TBD        |
| 59 | Trans. Accidents  | Prevention                   | Inventory chronic traffic signal problems.   | Med. | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |
| 60 | Trans. Accidents  | Prevention                   | Carry out a countywide survey of dangerous intersections.  | Med  | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |

**Action Plan – Village of Corfu**

| <b>Village of Corfu Mitigation Measures (Village Lead Projects)*</b>    |   |                              |  |                |                      |                           |                       |                             |              |
|---|---|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|-----------------------------|--------------|
| *The Village of Corfu will implement the following mitigation projects. |   |                              |  |                |                      |                           |                       |                             |              |
| #   | Hazard(s)   | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies           | Approx. Cost |
| 25  | Flooding  | Property Protection          | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD       | Staff Time   |
| 26  | Flooding  | Property Protection          | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD       | \$25,000     |
| 28  | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                        | TBD*         |
| 29  | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                        | TBD*         |
| 30  | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med.           | Ongoing              | Local Resources           | All Municipalities    |                             | Staff Time   |
| 31  | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low            | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, County EMO | Staff Time   |
| 37  | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med.           | 2008-2012            | NYS DOS                   | Municipalities        | County Planning,            | Staff Time   |
| 42  | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Property Protection          | Require the use of hazard resistant construction.  | Med.           | 2008-Ongoing         | Local Resources           | All Municipalities    |                             | Staff Time   |
| 43  | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.                         | Med.           | 2008-2012            | Local Resources           | All Municipalities    |                             | Staff Time   |
| 44  | Earthquake  | Prevention                   | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY.            | Med.           | 2008-2012            | Local Resources           | Municipalities        | County Planning, MCEER      | Staff Time   |
| 51  | Water Supply Contamination                                      | Prevention                   | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.  | High           | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD       | \$25,000     |
| 52  | Water Supply Contamination                                      | Prevention                   | Enforce separation of water wells from manure storage.   | High           | 2008-2010            | Local Resources           | Municipalities        | SWCD                        | Staff Time   |
| 58  | Hazardous   | Natural                      | Ensure protection of water   | Low            | 2008-2012            | Staff                     | Municipalities        | SWCD                        | Staff        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|  |           |                     |   |  |  |      |  |  |      |
|--|-----------|---------------------|---|--|--|------|--|--|------|
|  | Materials | Resource Protection | resources and water supplies in the vicinity of facilities housing hazardous materials. |  |  | Time |  |  | Time |
|--|-----------|---------------------|---|--|--|------|--|--|------|

| <b>Village of Corfu Mitigation Measures (County Lead Projects)*</b>   |           |                              |  |                |                      |                           |                       |  |              |
|---|-----------|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|--|--------------|
| *The Village of Corfu will collaborate with a County Department/Agency to implement the following projects. |           |                              |  |                |                      |                           |                       |  |              |
| #   | Hazard(s) | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies  | Approx. Cost |
| 1   | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE          | TBD          |
| 2   | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                                       | TBD          |
| 4   | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health                      | \$50,000     |
| 5   | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies                     | Staff Time   |
| 6   | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.           | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency                   | TBD          |
| 7   | All       | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 8   | All       | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 9   | All       | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.                | Med.           | 2008-2012            | FEMA                      | County EMO            | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000     |
| 10  | All       | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.  | Med.           | 2008-2010            | NYS DOS, NYSARA,          | County Planning       | Municipalities, County EMO                                     | \$50,000     |
| 18  | All       | Emergency Services           | Prepare a countywide inventory of manure storage facilities.   | Low            | 2008-2010            | USDA                      | SWCD                  | Municipalities   | \$25,000     |
| 21  | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).  | High           | 2008-2010            | Local Resources           | County EMO            | Municipalities, County Planning                                | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |   |                 |   |            |
|----|---|------------------------------|---|------|--------------|---|-----------------|---|------------|
| 22 | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS                                 | County Planning | Municipalities, SWCD  | \$25,000   |
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources                         | County EMO      | County Highway, Municipalities                                    | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                                    | SWCD            | Municipalities, County Planning                                   | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                                    | SWCD            | Municipalities, County Highway                                    | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners      | Municipalities, SWCD  | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.  | Med. | 2008-2010    | Local Resources                         | County EMO      | Municipalities  | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.                       | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO      | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities.                  | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO      | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.   | Med. | 2008-2012    | FEMA                                    | County EMO      | Municipalities, County Highway, MCEER                             | TBD        |
| 46 | Earthquake  | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.   | Low  | 2008-Ongoing | FEMA                                    | County EMO      | Municipalities, MCEER   | \$10,000   |
| 49 | Fire  | Property Protection          | Require containment construction for structures not currently mandated to meet code.  | Low  | 2008-2010    | Local Resources                         | County EMO      | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50 | Fire  | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.   | Low  | 2008-2010    | Local Resources                         | County EMO      | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53 | Water Supply  | Property                     | Develop a program to provide  | High | 2008-2010    | Local                                   | County          | Municipalities  | Staff      |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                            |                             |  |      |           |                 |                |  |          |
|----|----------------------------|-----------------------------|--|------|-----------|-----------------|----------------|--|----------|
|    | Contamination              | Protection                  | free testing of water wells.   |      |           | Resources       | Health         |  | Time     |
| 55 | Water Supply Contamination | Natural Resource Protection | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination. | High | 2008-2010 | NYS DOS, US EPA | SWCD           | Municipalities                         | TBD      |
| 59 | Trans. Accidents           | Prevention                  | Inventory chronic traffic signal problems.   | Med. | 2008-2010 | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000 |
| 60 | Trans. Accidents           | Prevention                  | Carry out a countywide survey of dangerous intersections.  | Med  | 2008-2010 | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000 |

**Action Plan – Town of Darien**

| <b>Town of Darien Mitigation Measures (Town Lead Projects)*</b>       |   |                              |  |                |                      |                           |                       |                             |              |
|---|---|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|-----------------------------|--------------|
| *The Town of Darien will implement the following mitigation projects. |   |                              |  |                |                      |                           |                       |                             |              |
| #   | Hazard(s)   | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies           | Approx. Cost |
| 25  | Flooding  | Property Protection          | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD       | Staff Time   |
| 26  | Flooding  | Property Protection          | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD       | \$25,000     |
| 28  | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                        | TBD*         |
| 29  | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                        | TBD*         |
| 30  | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med.           | Ongoing              | Local Resources           | All Municipalities    |                             | Staff Time   |
| 31  | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low            | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, County EMO | Staff Time   |
| 37  | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med.           | 2008-2012            | NYS DOS                   | Municipalities        | County Planning,            | Staff Time   |
| 42  | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Require the use of hazard resistant construction.  | Med.           | 2008-Ongoing         | Local Resources           | All Municipalities    |                             | Staff Time   |
| 43  | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.                         | Med.           | 2008-2012            | Local Resources           | All Municipalities    |                             | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                            |                             |   |      |           |                 |                |                        |            |
|----|----------------------------|-----------------------------|---|------|-----------|-----------------|----------------|------------------------|------------|
| 44 | Earthquake                 | Prevention                  | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012 | Local Resources | Municipalities | County Planning, MCEER | Staff Time |
| 51 | Water Supply Contamination | Prevention                  | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010 | NYS DOS         | Municipalities | County Planning, SWCD  | \$25,000   |
| 52 | Water Supply Contamination | Prevention                  | Enforce separation of water wells from manure storage.  | High | 2008-2010 | Local Resources | Municipalities | SWCD                   | Staff Time |
| 58 | Hazardous Materials        | Natural Resource Protection | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012 | Staff Time      | Municipalities | SWCD                   | Staff Time |

| <b>Town of Darien Mitigation Measures (County Lead Projects)*</b>   |           |                              |  |                |                      |                           |                       |  |              |
|---|-----------|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|--|--------------|
| *The Town of Darien will collaborate with a County Department/Agency to implement the following projects. |           |                              |  |                |                      |                           |                       |  |              |
| #   | Hazard(s) | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies  | Approx. Cost |
| 1   | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE          | TBD          |
| 2   | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                                       | TBD          |
| 4   | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health                      | \$50,000     |
| 5   | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies                     | Staff Time   |
| 6   | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.           | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency                   | TBD          |
| 7   | All       | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 8   | All       | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 9   | All       | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.                | Med.           | 2008-2012            | FEMA                      | County EMO            | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000     |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |   |                 |   |            |
|----|---|------------------------------|---|------|--------------|---|-----------------|---|------------|
| 10 | All   | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,                        | County Planning | Municipalities, County EMO  | \$50,000   |
| 18 | All   | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                                    | SWCD            | Municipalities  | \$25,000   |
| 21 | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources                         | County EMO      | Municipalities, County Planning                                   | Staff Time |
| 22 | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS                                 | County Planning | Municipalities, SWCD  | \$25,000   |
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources                         | County EMO      | County Highway, Municipalities                                    | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                                    | SWCD            | Municipalities, County Planning                                   | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                                    | SWCD            | Municipalities, County Highway                                    | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners      | Municipalities, SWCD  | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.  | Med. | 2008-2010    | Local Resources                         | County EMO      | Municipalities  | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.                       | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO      | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities.                  | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO      | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.   | Med. | 2008-2012    | FEMA                                    | County EMO      | Municipalities, County Highway, MCEER                             | TBD        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                            |                              |   |      |              |                 |                |  |            |
|----|----------------------------|------------------------------|---|------|--------------|-----------------|----------------|--|------------|
| 46 | Earthquake                 | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.                                 | Low  | 2008-Ongoing | FEMA            | County EMO     | Municipalities, MCEER                  | \$10,000   |
| 49 | Fire                       | Property Protection          | Require containment construction for structures not currently mandated to meet code.  | Low  | 2008-2010    | Local Resources | County EMO     | Municipalities, Local Fire Depts.      | Staff Time |
| 50 | Fire                       | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station. | Low  | 2008-2010    | Local Resources | County EMO     | Municipalities, Local Fire Depts.      | Staff Time |
| 53 | Water Supply Contamination | Property Protection          | Develop a program to provide free testing of water wells.   | High | 2008-2010    | Local Resources | County Health  | Municipalities                         | Staff Time |
| 55 | Water Supply Contamination | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.          | High | 2008-2010    | NYS DOS, US EPA | SWCD           | Municipalities                         | TBD        |
| 59 | Trans. Accidents           | Prevention                   | Inventory chronic traffic signal problems.  | Med. | 2008-2010    | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000   |
| 60 | Trans. Accidents           | Prevention                   | Carry out a countywide survey of dangerous intersections.   | Med  | 2008-2010    | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000   |

**Action Plan – Town of Elba**

| <b>Town of Elba Mitigation Measures (Town Lead Projects)*</b>       |   |                              |  |                |                      |                           |                       |                             |              |
|---|---|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|-----------------------------|--------------|
| *The Town of Elba will implement the following mitigation projects. |   |                              |  |                |                      |                           |                       |                             |              |
| #   | Hazard(s)                                       | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies           | Approx. Cost |
| 25  | Flooding  | Property Protection          | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD       | Staff Time   |
| 26  | Flooding  | Property Protection          | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD       | \$25,000     |
| 28  | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                        | TBD*         |
| 29  | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                        | TBD*         |
| 30  | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med.           | Ongoing              | Local Resources           | All Municipalities    |                             | Staff Time   |
| 31  | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low            | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, County EMO | Staff Time   |
| 37  | Ice Storm, Winter Storm, Severe Storm, Tornado, | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med.           | 2008-2012            | NYS DOS                   | Municipalities        | County Planning,            | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |  |                             |   |      |              |                 |                    |                        |            |
|----|--|-----------------------------|---|------|--------------|-----------------|--------------------|------------------------|------------|
|    | Utility Failure  |                             |   |      |              |                 |                    |                        |            |
| 42 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure | Property Protection         | Require the use of hazard resistant construction.   | Med. | 2008-Ongoing | Local Resources | All Municipalities |                        | Staff Time |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure | Property Protection         | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.              | Med. | 2008-2012    | Local Resources | All Municipalities |                        | Staff Time |
| 44 | Earthquake   | Prevention                  | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012    | Local Resources | Municipalities     | County Planning, MCEER | Staff Time |
| 51 | Water Supply Contamination                                     | Prevention                  | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD  | \$25,000   |
| 52 | Water Supply Contamination                                     | Prevention                  | Enforce separation of water wells from manure storage.  | High | 2008-2010    | Local Resources | Municipalities     | SWCD                   | Staff Time |
| 58 | Hazardous Materials  | Natural Resource Protection | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012    | Staff Time      | Municipalities     | SWCD                   | Staff Time |

| <b>Town of Elba Mitigation Measures (County Lead Projects)*</b>   |           |                              |  |                |                      |                           |                       |   |              |
|---|-----------|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|---|--------------|
| *The Town of Elba will collaborate with a County Department/Agency to implement the following projects. |           |                              |  |                |                      |                           |                       |   |              |
| #   | Hazard(s) | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                                     | Approx. Cost |
| 1   | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE | TBD          |
| 2   | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                              | TBD          |
| 4   | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health             | \$50,000     |
| 5   | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies            | Staff Time   |
| 6   | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.           | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency          | TBD          |
| 7   | All       | Natural                      | Encourage the protection of  | Low            | 2008-                | NYS DOS                   | SCWD                  | Municipalities,                                       | Staff        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |   |                 |  |            |
|----|---|------------------------------|---|------|--------------|---|-----------------|--|------------|
|    |   | Resource Protection          | wetlands and aquifers wherever possible.  |      | Ongoing      |   |                 | County Planning  | Time       |
| 8  | All   | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.  | Low  | 2008-Ongoing | NYS DOS                                 | SCWD            | Municipalities, County Planning                                | Staff Time |
| 9  | All   | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.   | Med. | 2008-2012    | FEMA                                    | County EMO      | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000   |
| 10 | All   | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,                        | County Planning | Municipalities, County EMO                                     | \$50,000   |
| 18 | All   | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                                    | SWCD            | Municipalities   | \$25,000   |
| 21 | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources                         | County EMO      | Municipalities, County Planning                                | Staff Time |
| 22 | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS                                 | County Planning | Municipalities, SWCD   | \$25,000   |
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources                         | County EMO      | County Highway, Municipalities                                 | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                                    | SWCD            | Municipalities, County Planning                                | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                                    | SWCD            | Municipalities, County Highway                                 | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners      | Municipalities, SWCD   | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.  | Med. | 2008-2010    | Local Resources                         | County EMO      | Municipalities   | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators for the following facilities: Town Hall, Fire Station, Elba Central School, Town Highway Garage, Firemen's Rec. Hall   | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO      | Select Municipalities, Interested County Agencies              | TBD        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |  |                              |  |      |              |                       |                |   |            |
|----|--|------------------------------|--|------|--------------|-----------------------|----------------|---|------------|
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. | Low  | 2008-2012    | Local Resources, FEMA | County EMO     | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake   | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.  | Med. | 2008-2012    | FEMA                  | County EMO     | Municipalities, County Highway, MCEER                             | TBD        |
| 46 | Earthquake   | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.  | Low  | 2008-Ongoing | FEMA                  | County EMO     | Municipalities, MCEER   | \$10,000   |
| 49 | Fire   | Property Protection          | Require containment construction for structures not currently mandated to meet code.   | Low  | 2008-2010    | Local Resources       | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50 | Fire   | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.  | Low  | 2008-2010    | Local Resources       | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53 | Water Supply Contamination                                     | Property Protection          | Develop a program to provide free testing of water wells.  | High | 2008-2010    | Local Resources       | County Health  | Municipalities  | Staff Time |
| 55 | Water Supply Contamination                                     | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.   | High | 2008-2010    | NYS DOS, US EPA       | SWCD           | Municipalities  | TBD        |
| 59 | Trans. Accidents   | Prevention                   | Inventory chronic traffic problems including dangerous intersections and excessive speed.  | Med. | 2008-2010    | GTC                   | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |
| 60 | Trans. Accidents   | Prevention                   | Assess traffic safety conditions at Rt. 98 and Batavia-Elba Townline Rd.   | Med  | 2008-2010    | GTC                   | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$25,000   |

**Action Plan – Village of Elba**

| <b>Village of Elba Mitigation Measures (Village Lead Projects)*</b>    |           |                     |  |                |                      |                           |                       |                       |              |
|--|-----------|---------------------|--|----------------|----------------------|---------------------------|-----------------------|-----------------------|--------------|
| *The Village of Elba will implement the following mitigation projects. |           |                     |  |                |                      |                           |                       |                       |              |
| #  | Hazard(s) | Category            | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies     | Approx. Cost |
| 25   | Flooding  | Property Protection | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD | Staff Time   |
| 26   | Flooding  | Property Protection | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD | \$25,000     |
| 28   | Flooding  | Property Protection | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                  | TBD*         |
| 29   | Flooding  | Property Protection | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                  | TBD*         |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |                 |                    |                             |            |
|----|---|------------------------------|---|------|--------------|-----------------|--------------------|-----------------------------|------------|
|    |   |                              | make them more flood-resistant.   |      |              |                 |                    |                             |            |
| 30 | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).  | Med. | Ongoing      | Local Resources | All Municipalities |                             | Staff Time |
| 31 | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.   | Low  | 2008-Ongoing | Local Resources | Municipalities     | County Planning, County EMO | Staff Time |
| 37 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.  | Med. | 2008-2012    | NYS DOS         | Municipalities     | County Planning,            | Staff Time |
| 42 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Require the use of hazard resistant construction.   | Med. | 2008-Ongoing | Local Resources | All Municipalities |                             | Staff Time |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.              | Med. | 2008-2012    | Local Resources | All Municipalities |                             | Staff Time |
| 44 | Earthquake  | Prevention                   | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012    | Local Resources | Municipalities     | County Planning, MCEER      | Staff Time |
| 51 | Water Supply Contamination                                      | Prevention                   | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD       | \$25,000   |
| 52 | Water Supply Contamination                                      | Prevention                   | Enforce separation of water wells from manure storage.  | High | 2008-2010    | Local Resources | Municipalities     | SWCD                        | Staff Time |
| 58 | Hazardous Materials   | Natural Resource Protection  | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012    | Staff Time      | Municipalities     | SWCD                        | Staff Time |

| <b>Village of Elba Mitigation Measures (County Lead Projects)*</b>   |           |            |  |                |                      |                           |                       |   |              |
|--|-----------|------------|--|----------------|----------------------|---------------------------|-----------------------|---|--------------|
| *The Village of Elba will collaborate with a County Department/Agency to implement the following projects. |           |            |  |                |                      |                           |                       |   |              |
| #  | Hazard(s) | Category   | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                                     | Approx. Cost |
| 1  | All       | Prevention | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.                          | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE | TBD          |
| 2  | All       | Prevention | Develop a coordinated plan for tree replacement and maintenance that allows for maintaining power and retaining community character. | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                              | TBD          |
| 4  | All       | Prevention | Develop detailed maps showing the locations of utility lines, including  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health             | \$50,000     |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |           |                              |   |      |              |                     |                 |  |            |
|----|-----------|------------------------------|---|------|--------------|---------------------|-----------------|--|------------|
|    |           |                              | electric, sewer, telephone, gas, and water.   |      |              |                     |                 |  |            |
| 5  | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process.                                    | Med. | 2008-Ongoing | Local Resources     | County EMO      | Municipalities, Interested County Agencies                     | Staff Time |
| 6  | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.   | Med. | 2008-Ongoing | FEMA, SEMO, NYS OHS | County EMO      | Municipalities, any interested county agency                   | TBD        |
| 7  | All       | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.  | Low  | 2008-Ongoing | NYS DOS             | SCWD            | Municipalities, County Planning                                | Staff Time |
| 8  | All       | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.  | Low  | 2008-Ongoing | NYS DOS             | SCWD            | Municipalities, County Planning                                | Staff Time |
| 9  | All       | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.   | Med. | 2008-2012    | FEMA                | County EMO      | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000   |
| 10 | All       | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,    | County Planning | Municipalities, County EMO                                     | \$50,000   |
| 18 | All       | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                | SWCD            | Municipalities   | \$25,000   |
| 21 | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources     | County EMO      | Municipalities, County Planning                                | Staff Time |
| 22 | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS             | County Planning | Municipalities, SWCD   | \$25,000   |
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources     | County EMO      | County Highway, Municipalities                                 | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                | SWCD            | Municipalities, County Planning                                | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                | SWCD            | Municipalities, County Highway                                 | \$50,000   |
| 36 | Flooding, | Structural                   | Replace faulty flood control  | Low  | 2008-        | Local               | Dam Owners      | Municipalities,  | TBD        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |  |      |              |   |                |   |            |
|----|---|------------------------------|--|------|--------------|---|----------------|---|------------|
|    | Dam Failure   | Projects                     | devices.   |      | Ongoing      | Resources, NDSP                         |                | SWCD  |            |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.   | Med. | 2008-2010    | Local Resources                         | County EMO     | Municipalities  | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.      | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO     | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO     | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.  | Med. | 2008-2012    | FEMA                                    | County EMO     | Municipalities, County Highway, MCEER                             | TBD        |
| 46 | Earthquake  | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.  | Low  | 2008-Ongoing | FEMA                                    | County EMO     | Municipalities, MCEER   | \$10,000   |
| 49 | Fire  | Property Protection          | Require containment construction for structures not currently mandated to meet code.   | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50 | Fire  | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.  | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53 | Water Supply Contamination                                      | Property Protection          | Develop a program to provide free testing of water wells.  | High | 2008-2010    | Local Resources                         | County Health  | Municipalities  | Staff Time |
| 55 | Water Supply Contamination                                      | Natural Resource Protection  | The Village will develop a wellhead protection plan to buffer or protect wellheads from water contamination.   | High | 2008-2010    | NYS DOS, US EPA                         | SWCD           | Municipalities  | TBD        |
| 59 | Trans. Accidents  | Prevention                   | Inventory chronic traffic signal problems.   | Med. | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |
| 60 | Trans. Accidents  | Prevention                   | Carry out a countywide survey of dangerous intersections.  | Med  | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |

**Action Plan – Town of Le Roy**

| <b>Town of Le Roy Mitigation Measures (Town Lead Projects)*</b>       |           |            |   |                |                      |                           |                       |                        |              |
|---|-----------|------------|---|----------------|----------------------|---------------------------|-----------------------|------------------------|--------------|
| *The Town of Le Roy will implement the following mitigation projects. |           |            |   |                |                      |                           |                       |                        |              |
| #   | Hazard(s) | Category   | Mitigation Measure                                | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies      | Approx. Cost |
| 23  | Flooding  | Prevention | Municipal officials should begin implementing the | Med.           | 2008-Ongoing         | Local Resources,          | Municipalities        | SWCD, County Planning, | TBD          |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |  |      |              |                 |                    |                             |            |
|----|---|------------------------------|--|------|--------------|-----------------|--------------------|-----------------------------|------------|
|    |   |                              | municipal flood/drainage mitigation programs included within the Genesee County Flood Mitigation Plan.   |      |              | FEMA            |                    | County Highway              |            |
| 25 | Flooding  | Property Protection          | Raise awareness of and enforce existing floodplain regulations.  | Med. | 2008-Ongoing | Local Resources | Municipalities     | County Planning, SWCD       | Staff Time |
| 26 | Flooding  | Property Protection          | Raise minimum residential elevations required in flood prone areas.  | Low  | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD       | \$25,000   |
| 28 | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med. | 2008-Ongoing | FEMA            | Municipalities     | SWCD                        | TBD*       |
| 29 | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med. | 2008-Ongoing | FEMA            | Municipalities     | SWCD                        | TBD*       |
| 30 | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med. | Ongoing      | Local Resources | All Municipalities |                             | Staff Time |
| 31 | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low  | 2008-Ongoing | Local Resources | Municipalities     | County Planning, County EMO | Staff Time |
| 37 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med. | 2008-2012    | NYS DOS         | Municipalities     | County Planning,            | Staff Time |
| 42 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Require the use of hazard resistant construction.  | Med. | 2008-Ongoing | Local Resources | All Municipalities |                             | Staff Time |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.                         | Med. | 2008-2012    | Local Resources | All Municipalities |                             | Staff Time |
| 44 | Earthquake  | Prevention                   | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY.            | Med. | 2008-2012    | Local Resources | Municipalities     | County Planning, MCEER      | Staff Time |
| 51 | Water Supply Contamination                                      | Prevention                   | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.  | High | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD       | \$25,000   |
| 52 | Water Supply Contamination                                      | Prevention                   | Enforce separation of water wells from manure storage.   | High | 2008-2010    | Local Resources | Municipalities     | SWCD                        | Staff Time |
| 58 | Hazardous Materials   | Natural Resource Protection  | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.   | Low  | 2008-2012    | Staff Time      | Municipalities     | SWCD                        | Staff Time |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

| <b>Town of Le Roy Mitigation Measures (County Lead Projects)*</b>   |           |                              |  |                |                      |                           |                       |  |              |
|---|-----------|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|--|--------------|
| *The Town of Le Roy will collaborate with a County Department/Agency to implement the following projects. |           |                              |  |                |                      |                           |                       |  |              |
| #   | Hazard(s) | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies  | Approx. Cost |
| 1   | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE          | TBD          |
| 2   | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                                       | TBD          |
| 4   | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health                      | \$50,000     |
| 5   | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies                     | Staff Time   |
| 6   | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.           | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency                   | TBD          |
| 7   | All       | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 8   | All       | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 9   | All       | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.                | Med.           | 2008-2012            | FEMA                      | County EMO            | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000     |
| 10  | All       | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.  | Med.           | 2008-2010            | NYS DOS, NYSARA,          | County Planning       | Municipalities, County EMO                                     | \$50,000     |
| 18  | All       | Emergency Services           | Prepare a countywide inventory of manure storage facilities.   | Low            | 2008-2010            | USDA                      | SWCD                  | Municipalities   | \$25,000     |
| 21  | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).  | High           | 2008-2010            | Local Resources           | County EMO            | Municipalities, County Planning                                | Staff Time   |
| 22  | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, SWCD   | \$25,000     |
| 27  | Flooding  | Property                     | Develop a coordinated  | Low            | 2008-2010            | Local                     | County                | County Highway,  | Staff        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |  |      |              |   |               |   |            |
|----|---|------------------------------|--|------|--------------|---|---------------|---|------------|
|    |   | Protection                   | sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies.      |      |              | Resources                               | EMO           | Municipalities  | Time       |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.   | Low  | 2008-Ongoing | FEMA                                    | SWCD          | Municipalities, County Planning                                   | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.   | Med  | 2008-2010    | FEMA                                    | SWCD          | Municipalities, County Highway                                    | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.  | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners    | Municipalities, SWCD  | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.   | Med. | 2008-2010    | Local Resources                         | County EMO    | Municipalities  | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.      | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO    | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO    | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.  | Med. | 2008-2012    | FEMA                                    | County EMO    | Municipalities, County Highway, MCEER                             | TBD        |
| 46 | Earthquake  | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.  | Low  | 2008-Ongoing | FEMA                                    | County EMO    | Municipalities, MCEER   | \$10,000   |
| 49 | Fire  | Property Protection          | Require containment construction for structures not currently mandated to meet code.   | Low  | 2008-2010    | Local Resources                         | County EMO    | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50 | Fire  | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.  | Low  | 2008-2010    | Local Resources                         | County EMO    | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53 | Water Supply Contamination                                      | Property Protection          | Develop a program to provide free testing of water wells.  | High | 2008-2010    | Local Resources                         | County Health | Municipalities  | Staff Time |
| 55 | Water Supply Contamination                                      | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water  | High | 2008-2010    | NYS DOS, US EPA                         | SWCD          | Municipalities  | TBD        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                  |            |   |      |           |     |                |  |          |
|----|------------------|------------|---|------|-----------|-----|----------------|--|----------|
|    |                  |            | contamination.  |      |           |     |                |  |          |
| 59 | Trans. Accidents | Prevention | Inventory chronic traffic signal problems.                | Med. | 2008-2010 | GTC | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000 |
| 60 | Trans. Accidents | Prevention | Carry out a countywide survey of dangerous intersections. | Med  | 2008-2010 | GTC | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000 |

**Action Plan – Village of Le Roy**

| <b>Village of Le Roy Mitigation Measures (Village Lead Projects)*</b>    |   |                              |  |                |                      |                           |                       |                                       |              |
|--|---|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|---------------------------------------|--------------|
| *The Village of Le Roy will implement the following mitigation projects. |   |                              |  |                |                      |                           |                       |                                       |              |
| #  | Hazard(s)   | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                     | Approx. Cost |
| 23   | Flooding  | Prevention                   | Municipal officials should begin implementing the municipal flood/drainage mitigation programs included within the Genesee County Flood Mitigation Plan.               | Med.           | 2008-Ongoing         | Local Resources, FEMA     | Municipalities        | SWCD, County Planning, County Highway | TBD          |
| 25   | Flooding  | Property Protection          | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD                 | Staff Time   |
| 26   | Flooding  | Property Protection          | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD                 | \$25,000     |
| 28   | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 29   | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 30   | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med.           | Ongoing              | Local Resources           | All Municipalities    |                                       | Staff Time   |
| 31   | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low            | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, County EMO           | Staff Time   |
| 37   | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med.           | 2008-2012            | NYS DOS                   | Municipalities        | County Planning,                      | Staff Time   |
| 42   | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Require the use of hazard resistant construction.  | Med.           | 2008-Ongoing         | Local Resources           | All Municipalities    |                                       | Staff Time   |
| 43   | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.                         | Med.           | 2008-2012            | Local Resources           | All Municipalities    |                                       | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                            |                             |   |      |           |                 |                |                        |            |
|----|----------------------------|-----------------------------|---|------|-----------|-----------------|----------------|------------------------|------------|
| 44 | Earthquake                 | Prevention                  | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012 | Local Resources | Municipalities | County Planning, MCEER | Staff Time |
| 51 | Water Supply Contamination | Prevention                  | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010 | NYS DOS         | Municipalities | County Planning, SWCD  | \$25,000   |
| 52 | Water Supply Contamination | Prevention                  | Enforce separation of water wells from manure storage.  | High | 2008-2010 | Local Resources | Municipalities | SWCD                   | Staff Time |
| 58 | Hazardous Materials        | Natural Resource Protection | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012 | Staff Time      | Municipalities | SWCD                   | Staff Time |

| <b>Village of Le Roy Mitigation Measures (County Lead Projects)*</b>   |           |                              |  |                |                      |                           |                       |  |              |
|--|-----------|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|--|--------------|
| *The Village of Le Roy will collaborate with a County Department/Agency to implement the following projects. |           |                              |  |                |                      |                           |                       |  |              |
| #  | Hazard(s) | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies  | Approx. Cost |
| 1  | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE          | TBD          |
| 2  | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                                       | TBD          |
| 4  | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health                      | \$50,000     |
| 5  | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies                     | Staff Time   |
| 6  | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.           | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency                   | TBD          |
| 7  | All       | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 8  | All       | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 9  | All       | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.                | Med.           | 2008-2012            | FEMA                      | County EMO            | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000     |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |   |                 |   |            |
|----|---|------------------------------|---|------|--------------|---|-----------------|---|------------|
| 10 | All   | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,                        | County Planning | Municipalities, County EMO  | \$50,000   |
| 18 | All   | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                                    | SWCD            | Municipalities  | \$25,000   |
| 21 | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources                         | County EMO      | Municipalities, County Planning                                   | Staff Time |
| 22 | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS                                 | County Planning | Municipalities, SWCD  | \$25,000   |
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources                         | County EMO      | County Highway, Municipalities                                    | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                                    | SWCD            | Municipalities, County Planning                                   | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                                    | SWCD            | Municipalities, County Highway                                    | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners      | Municipalities, SWCD  | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.  | Med. | 2008-2010    | Local Resources                         | County EMO      | Municipalities  | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.                       | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO      | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities.                  | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO      | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.   | Med. | 2008-2012    | FEMA                                    | County EMO      | Municipalities, County Highway, MCEER                             | TBD        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                            |                              |   |      |              |                 |                |  |            |
|----|----------------------------|------------------------------|---|------|--------------|-----------------|----------------|--|------------|
| 46 | Earthquake                 | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.                                 | Low  | 2008-Ongoing | FEMA            | County EMO     | Municipalities, MCEER                  | \$10,000   |
| 49 | Fire                       | Property Protection          | Require containment construction for structures not currently mandated to meet code.  | Low  | 2008-2010    | Local Resources | County EMO     | Municipalities, Local Fire Depts.      | Staff Time |
| 50 | Fire                       | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station. | Low  | 2008-2010    | Local Resources | County EMO     | Municipalities, Local Fire Depts.      | Staff Time |
| 53 | Water Supply Contamination | Property Protection          | Develop a program to provide free testing of water wells.   | High | 2008-2010    | Local Resources | County Health  | Municipalities                         | Staff Time |
| 55 | Water Supply Contamination | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.          | High | 2008-2010    | NYS DOS, US EPA | SWCD           | Municipalities                         | TBD        |
| 59 | Trans. Accidents           | Prevention                   | Inventory chronic traffic signal problems.  | Med. | 2008-2010    | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000   |
| 60 | Trans. Accidents           | Prevention                   | Carry out a countywide survey of dangerous intersections.   | Med  | 2008-2010    | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000   |

**Action Plan – Town of Oakfield**

| <b>Town of Oakfield Mitigation Measures (Town Lead Projects)*</b>       |   |                              |  |                |                      |                           |                       |                             |              |
|---|---|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|-----------------------------|--------------|
| *The Town of Oakfield will implement the following mitigation projects. |   |                              |  |                |                      |                           |                       |                             |              |
| #   | Hazard(s)                                       | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies           | Approx. Cost |
| 25  | Flooding  | Property Protection          | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD       | Staff Time   |
| 26  | Flooding  | Property Protection          | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD       | \$25,000     |
| 28  | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                        | TBD*         |
| 29  | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                        | TBD*         |
| 30  | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med.           | Ongoing              | Local Resources           | All Municipalities    |                             | Staff Time   |
| 31  | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low            | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, County EMO | Staff Time   |
| 37  | Ice Storm, Winter Storm, Severe Storm, Tornado, | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med.           | 2008-2012            | NYS DOS                   | Municipalities        | County Planning,            | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |  |                             |   |      |              |                 |                    |                        |            |
|----|--|-----------------------------|---|------|--------------|-----------------|--------------------|------------------------|------------|
|    | Utility Failure  |                             |   |      |              |                 |                    |                        |            |
| 42 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure | Property Protection         | Require the use of hazard resistant construction.   | Med. | 2008-Ongoing | Local Resources | All Municipalities |                        | Staff Time |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure | Property Protection         | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.              | Med. | 2008-2012    | Local Resources | All Municipalities |                        | Staff Time |
| 44 | Earthquake   | Prevention                  | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012    | Local Resources | Municipalities     | County Planning, MCEER | Staff Time |
| 51 | Water Supply Contamination                                     | Prevention                  | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD  | \$25,000   |
| 52 | Water Supply Contamination                                     | Prevention                  | Enforce separation of water wells from manure storage.  | High | 2008-2010    | Local Resources | Municipalities     | SWCD                   | Staff Time |
| 58 | Hazardous Materials  | Natural Resource Protection | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012    | Staff Time      | Municipalities     | SWCD                   | Staff Time |

| <b>Town of Oakfield Mitigation Measures (County Lead Projects)*</b>   |           |                              |  |                |                      |                           |                       |   |              |
|---|-----------|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|---|--------------|
| *The Town of Oakfield will collaborate with a County Department/Agency to implement the following projects. |           |                              |  |                |                      |                           |                       |   |              |
| #   | Hazard(s) | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                                     | Approx. Cost |
| 1   | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE | TBD          |
| 2   | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                              | TBD          |
| 4   | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health             | \$50,000     |
| 5   | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies            | Staff Time   |
| 6   | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.           | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency          | TBD          |
| 7   | All       | Natural                      | Encourage the protection of  | Low            | 2008-                | NYS DOS                   | SCWD                  | Municipalities,                                       | Staff        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |   |                 |  |            |
|----|---|------------------------------|---|------|--------------|---|-----------------|--|------------|
|    |   | Resource Protection          | wetlands and aquifers wherever possible.  |      | Ongoing      |   |                 | County Planning  | Time       |
| 8  | All   | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.  | Low  | 2008-Ongoing | NYS DOS                                 | SCWD            | Municipalities, County Planning                                | Staff Time |
| 9  | All   | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.   | Med. | 2008-2012    | FEMA                                    | County EMO      | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000   |
| 10 | All   | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,                        | County Planning | Municipalities, County EMO                                     | \$50,000   |
| 18 | All   | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                                    | SWCD            | Municipalities   | \$25,000   |
| 21 | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources                         | County EMO      | Municipalities, County Planning                                | Staff Time |
| 22 | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS                                 | County Planning | Municipalities, SWCD   | \$25,000   |
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources                         | County EMO      | County Highway, Municipalities                                 | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                                    | SWCD            | Municipalities, County Planning                                | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                                    | SWCD            | Municipalities, County Highway                                 | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners      | Municipalities, SWCD   | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.  | Med. | 2008-2010    | Local Resources                         | County EMO      | Municipalities   | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and  | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO      | Select Municipalities, Interested County Agencies              | TBD        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |  |                              |  |      |              |                       |                |   |            |
|----|--|------------------------------|--|------|--------------|-----------------------|----------------|---|------------|
|    |  |                              | evacuation shelters.   |      |              |                       |                |   |            |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. | Low  | 2008-2012    | Local Resources, FEMA | County EMO     | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake   | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.  | Med. | 2008-2012    | FEMA                  | County EMO     | Municipalities, County Highway, MCEER                             | TBD        |
| 46 | Earthquake   | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.  | Low  | 2008-Ongoing | FEMA                  | County EMO     | Municipalities, MCEER   | \$10,000   |
| 49 | Fire   | Property Protection          | Require containment construction for structures not currently mandated to meet code.   | Low  | 2008-2010    | Local Resources       | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50 | Fire   | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.  | Low  | 2008-2010    | Local Resources       | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53 | Water Supply Contamination                                     | Property Protection          | Develop a program to provide free testing of water wells.  | High | 2008-2010    | Local Resources       | County Health  | Municipalities  | Staff Time |
| 55 | Water Supply Contamination                                     | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.   | High | 2008-2010    | NYS DOS, US EPA       | SWCD           | Municipalities  | TBD        |
| 59 | Trans. Accidents   | Prevention                   | Inventory chronic traffic signal problems.   | Med. | 2008-2010    | GTC                   | County Highway | NYS DOT, County Sheriff, Municipalities                           | \$50,000   |
| 60 | Trans. Accidents   | Prevention                   | Carry out a countywide survey of dangerous intersections.  | Med  | 2008-2010    | GTC                   | County Highway | NYS DOT, County Sheriff, Municipalities                           | \$50,000   |

**Action Plan – Village of Oakfield**

| <b>Village of Oakfield Mitigation Measures (Village Lead Projects)*</b>    |           |                     |  |                |                      |                           |                       |                       |              |
|--|-----------|---------------------|--|----------------|----------------------|---------------------------|-----------------------|-----------------------|--------------|
| *The Village of Oakfield will implement the following mitigation projects. |           |                     |  |                |                      |                           |                       |                       |              |
| #  | Hazard(s) | Category            | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies     | Approx. Cost |
| 25   | Flooding  | Property Protection | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD | Staff Time   |
| 26   | Flooding  | Property Protection | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD | \$25,000     |
| 28   | Flooding  | Property Protection | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                  | TBD*         |
| 29   | Flooding  | Property Protection | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                  | TBD*         |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |                 |                    |                             |            |
|----|---|------------------------------|---|------|--------------|-----------------|--------------------|-----------------------------|------------|
|    |   |                              | make them more flood-resistant.   |      |              |                 |                    |                             |            |
| 30 | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).  | Med. | Ongoing      | Local Resources | All Municipalities |                             | Staff Time |
| 31 | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.   | Low  | 2008-Ongoing | Local Resources | Municipalities     | County Planning, County EMO | Staff Time |
| 37 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.  | Med. | 2008-2012    | NYS DOS         | Municipalities     | County Planning,            | Staff Time |
| 42 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Require the use of hazard resistant construction.   | Med. | 2008-Ongoing | Local Resources | All Municipalities |                             | Staff Time |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.              | Med. | 2008-2012    | Local Resources | All Municipalities |                             | Staff Time |
| 44 | Earthquake  | Prevention                   | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012    | Local Resources | Municipalities     | County Planning, MCEER      | Staff Time |
| 51 | Water Supply Contamination                                      | Prevention                   | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD       | \$25,000   |
| 52 | Water Supply Contamination                                      | Prevention                   | Enforce separation of water wells from manure storage.  | High | 2008-2010    | Local Resources | Municipalities     | SWCD                        | Staff Time |
| 58 | Hazardous Materials   | Natural Resource Protection  | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012    | Staff Time      | Municipalities     | SWCD                        | Staff Time |

| <b>Village of Oakfield Mitigation Measures (County Lead Projects)*</b>   |           |            |  |                |                      |                           |                       |   |              |
|--|-----------|------------|--|----------------|----------------------|---------------------------|-----------------------|---|--------------|
| *The Village of Oakfield will collaborate with a County Department/Agency to implement the following projects. |           |            |  |                |                      |                           |                       |   |              |
| #  | Hazard(s) | Category   | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                                     | Approx. Cost |
| 1  | All       | Prevention | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.          | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE | TBD          |
| 2  | All       | Prevention | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character. | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                              | TBD          |
| 4  | All       | Prevention | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone,                  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health             | \$50,000     |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                       |                              |   |      |              |                     |                 |  |            |
|----|-----------------------|------------------------------|---|------|--------------|---------------------|-----------------|--|------------|
|    |                       |                              | gas, and water.   |      |              |                     |                 |  |            |
| 5  | All                   | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process.                                    | Med. | 2008-Ongoing | Local Resources     | County EMO      | Municipalities, Interested County Agencies                     | Staff Time |
| 6  | All                   | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.   | Med. | 2008-Ongoing | FEMA, SEMO, NYS OHS | County EMO      | Municipalities, any interested county agency                   | TBD        |
| 7  | All                   | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.  | Low  | 2008-Ongoing | NYS DOS             | SCWD            | Municipalities, County Planning                                | Staff Time |
| 8  | All                   | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.  | Low  | 2008-Ongoing | NYS DOS             | SCWD            | Municipalities, County Planning                                | Staff Time |
| 9  | All                   | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.   | Med. | 2008-2012    | FEMA                | County EMO      | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000   |
| 10 | All                   | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,    | County Planning | Municipalities, County EMO                                     | \$50,000   |
| 18 | All                   | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                | SWCD            | Municipalities   | \$25,000   |
| 21 | Flooding              | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources     | County EMO      | Municipalities, County Planning                                | Staff Time |
| 22 | Flooding              | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS             | County Planning | Municipalities, SWCD   | \$25,000   |
| 27 | Flooding              | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources     | County EMO      | County Highway, Municipalities                                 | Staff Time |
| 32 | Flooding              | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                | SWCD            | Municipalities, County Planning                                | \$25,000   |
| 34 | Flooding              | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                | SWCD            | Municipalities, County Highway                                 | \$50,000   |
| 36 | Flooding, Dam Failure | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources,    | Dam Owners      | Municipalities, SWCD   | TBD        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

| NDSP |   |                              |  |      |              |   |                |   |            |
|------|---|------------------------------|--|------|--------------|---|----------------|---|------------|
| 38   | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.   | Med. | 2008-2010    | Local Resources                         | County EMO     | Municipalities  | Staff Time |
| 39   | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.      | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO     | Select Municipalities, Interested County Agencies                 | TBD        |
| 41   | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO     | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45   | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.  | Med. | 2008-2012    | FEMA                                    | County EMO     | Municipalities, County Highway, MCEER                             | TBD        |
| 46   | Earthquake  | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.  | Low  | 2008-Ongoing | FEMA                                    | County EMO     | Municipalities, MCEER   | \$10,000   |
| 49   | Fire  | Property Protection          | Require containment construction for structures not currently mandated to meet code.   | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50   | Fire  | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.  | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53   | Water Supply Contamination                                      | Property Protection          | Develop a program to provide free testing of water wells.  | High | 2008-2010    | Local Resources                         | County Health  | Municipalities  | Staff Time |
| 55   | Water Supply Contamination                                      | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.   | High | 2008-2010    | NYS DOS, US EPA                         | SWCD           | Municipalities  | TBD        |
| 59   | Trans. Accidents  | Prevention                   | Inventory chronic traffic signal problems.   | Med. | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |
| 60   | Trans. Accidents  | Prevention                   | Carry out a countywide survey of dangerous intersections.  | Med  | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |

**Action Plan – Town of Pavilion**

| <b>Town of Pavilion Mitigation Measures (Town Lead Projects)*</b>       |           |            |   |                |                      |                           |                       |                        |              |
|---|-----------|------------|---|----------------|----------------------|---------------------------|-----------------------|------------------------|--------------|
| *The Town of Pavilion will implement the following mitigation projects. |           |            |   |                |                      |                           |                       |                        |              |
| #   | Hazard(s) | Category   | Mitigation Measure                                | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies      | Approx. Cost |
| 23  | Flooding  | Prevention | Municipal officials should begin implementing the | Med.           | 2008-Ongoing         | Local Resources,          | Municipalities        | SWCD, County Planning, | TBD          |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |  |      |              |                 |                    |                             |            |
|----|---|------------------------------|--|------|--------------|-----------------|--------------------|-----------------------------|------------|
|    |   |                              | municipal flood/drainage mitigation programs included within the Genesee County Flood Mitigation Plan.   |      |              | FEMA            |                    | County Highway              |            |
| 25 | Flooding  | Property Protection          | Raise awareness of and enforce existing floodplain regulations.  | Med. | 2008-Ongoing | Local Resources | Municipalities     | County Planning, SWCD       | Staff Time |
| 26 | Flooding  | Property Protection          | Raise minimum residential elevations required in flood prone areas.  | Low  | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD       | \$25,000   |
| 28 | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med. | 2008-Ongoing | FEMA            | Municipalities     | SWCD                        | TBD*       |
| 29 | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med. | 2008-Ongoing | FEMA            | Municipalities     | SWCD                        | TBD*       |
| 30 | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med. | Ongoing      | Local Resources | All Municipalities |                             | Staff Time |
| 31 | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low  | 2008-Ongoing | Local Resources | Municipalities     | County Planning, County EMO | Staff Time |
| 37 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med. | 2008-2012    | NYS DOS         | Municipalities     | County Planning,            | Staff Time |
| 42 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Require the use of hazard resistant construction.  | Med. | 2008-Ongoing | Local Resources | All Municipalities |                             | Staff Time |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.                         | Med. | 2008-2012    | Local Resources | All Municipalities |                             | Staff Time |
| 44 | Earthquake  | Prevention                   | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY.            | Med. | 2008-2012    | Local Resources | Municipalities     | County Planning, MCEER      | Staff Time |
| 51 | Water Supply Contamination                                      | Prevention                   | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.  | High | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD       | \$25,000   |
| 52 | Water Supply Contamination                                      | Prevention                   | Enforce separation of water wells from manure storage.   | High | 2008-2010    | Local Resources | Municipalities     | SWCD                        | Staff Time |
| 58 | Hazardous Materials   | Natural Resource Protection  | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.   | Low  | 2008-2012    | Staff Time      | Municipalities     | SWCD                        | Staff Time |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

| <b>Town of Pavilion Mitigation Measures (County Lead Projects)*</b>   |           |                              |  |                |                      |                           |                       |  |              |
|---|-----------|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|--|--------------|
| *The Town of Pavilion will collaborate with a County Department/Agency to implement the following projects. |           |                              |  |                |                      |                           |                       |  |              |
| #   | Hazard(s) | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies  | Approx. Cost |
| 1   | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE          | TBD          |
| 2   | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                                       | TBD          |
| 4   | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health                      | \$50,000     |
| 5   | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies                     | Staff Time   |
| 6   | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.           | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency                   | TBD          |
| 7   | All       | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 8   | All       | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 9   | All       | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.                | Med.           | 2008-2012            | FEMA                      | County EMO            | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000     |
| 10  | All       | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.  | Med.           | 2008-2010            | NYS DOS, NYSARA,          | County Planning       | Municipalities, County EMO                                     | \$50,000     |
| 18  | All       | Emergency Services           | Prepare a countywide inventory of manure storage facilities.   | Low            | 2008-2010            | USDA                      | SWCD                  | Municipalities   | \$25,000     |
| 21  | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).  | High           | 2008-2010            | Local Resources           | County EMO            | Municipalities, County Planning                                | Staff Time   |
| 22  | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, SWCD   | \$25,000     |
| 27  | Flooding  | Property                     | Develop a coordinated  | Low            | 2008-2010            | Local                     | County                | County Highway,  | Staff        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |  |      |              |   |               |   |            |
|----|---|------------------------------|--|------|--------------|---|---------------|---|------------|
|    |   | Protection                   | sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies.      |      |              | Resources                               | EMO           | Municipalities  | Time       |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.   | Low  | 2008-Ongoing | FEMA                                    | SWCD          | Municipalities, County Planning                                   | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.   | Med  | 2008-2010    | FEMA                                    | SWCD          | Municipalities, County Highway                                    | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.  | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners    | Municipalities, SWCD  | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.   | Med. | 2008-2010    | Local Resources                         | County EMO    | Municipalities  | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.      | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO    | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO    | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.  | Med. | 2008-2012    | FEMA                                    | County EMO    | Municipalities, County Highway, MCEER                             | TBD        |
| 46 | Earthquake  | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.  | Low  | 2008-Ongoing | FEMA                                    | County EMO    | Municipalities, MCEER   | \$10,000   |
| 49 | Fire  | Property Protection          | Require containment construction for structures not currently mandated to meet code.   | Low  | 2008-2010    | Local Resources                         | County EMO    | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50 | Fire  | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.  | Low  | 2008-2010    | Local Resources                         | County EMO    | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53 | Water Supply Contamination                                      | Property Protection          | Develop a program to provide free testing of water wells.  | High | 2008-2010    | Local Resources                         | County Health | Municipalities  | Staff Time |
| 55 | Water Supply Contamination                                      | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water  | High | 2008-2010    | NYS DOS, US EPA                         | SWCD          | Municipalities  | TBD        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                  |            |   |      |           |     |                |  |          |
|----|------------------|------------|---|------|-----------|-----|----------------|--|----------|
|    |                  |            | contamination.  |      |           |     |                |  |          |
| 59 | Trans. Accidents | Prevention | Inventory chronic traffic signal problems.                | Med. | 2008-2010 | GTC | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000 |
| 60 | Trans. Accidents | Prevention | Carry out a countywide survey of dangerous intersections. | Med  | 2008-2010 | GTC | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000 |

**Action Plan – Town of Pembroke**

| <b>Town of Pembroke Mitigation Measures (Town Lead Projects)*</b>       |   |                              |  |                |                      |                           |                       |                                       |              |
|---|---|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|---------------------------------------|--------------|
| *The Town of Pembroke will implement the following mitigation projects. |   |                              |  |                |                      |                           |                       |                                       |              |
| #   | Hazard(s)   | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                     | Approx. Cost |
| 23  | Flooding  | Prevention                   | Municipal officials should begin implementing the municipal flood/drainage mitigation programs included within the Genesee County Flood Mitigation Plan.               | Med.           | 2008-Ongoing         | Local Resources, FEMA     | Municipalities        | SWCD, County Planning, County Highway | TBD          |
| 25  | Flooding  | Property Protection          | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD                 | Staff Time   |
| 26  | Flooding  | Property Protection          | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD                 | \$25,000     |
| 28  | Flooding  | Property Protection          | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 29  | Flooding  | Property Protection          | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 30  | Flooding  | Property Protection          | Continue participation in the National Flood Insurance Program (NFIP).   | Med.           | Ongoing              | Local Resources           | All Municipalities    |                                       | Staff Time   |
| 31  | Flooding  | Public Education & Awareness | Disclose risks of flood zones to property owners.  | Low            | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, County EMO           | Staff Time   |
| 37  | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                   | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.   | Med.           | 2008-2012            | NYS DOS                   | Municipalities        | County Planning,                      | Staff Time   |
| 42  | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Require the use of hazard resistant construction.  | Med.           | 2008-Ongoing         | Local Resources           | All Municipalities    |                                       | Staff Time   |
| 43  | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Property Protection          | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.                         | Med.           | 2008-2012            | Local Resources           | All Municipalities    |                                       | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                            |                             |   |      |           |                 |                |                        |            |
|----|----------------------------|-----------------------------|---|------|-----------|-----------------|----------------|------------------------|------------|
| 44 | Earthquake                 | Prevention                  | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012 | Local Resources | Municipalities | County Planning, MCEER | Staff Time |
| 51 | Water Supply Contamination | Prevention                  | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010 | NYS DOS         | Municipalities | County Planning, SWCD  | \$25,000   |
| 52 | Water Supply Contamination | Prevention                  | Enforce separation of water wells from manure storage.  | High | 2008-2010 | Local Resources | Municipalities | SWCD                   | Staff Time |
| 58 | Hazardous Materials        | Natural Resource Protection | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012 | Staff Time      | Municipalities | SWCD                   | Staff Time |

| <b>Town of Pembroke Mitigation Measures (County Lead Projects)*</b>   |           |                              |  |                |                      |                           |                       |  |              |
|---|-----------|------------------------------|--|----------------|----------------------|---------------------------|-----------------------|--|--------------|
| *The Town of Pembroke will collaborate with a County Department/Agency to implement the following projects. |           |                              |  |                |                      |                           |                       |  |              |
| #   | Hazard(s) | Category                     | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies  | Approx. Cost |
| 1   | All       | Prevention                   | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.  | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE          | TBD          |
| 2   | All       | Prevention                   | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.   | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                                       | TBD          |
| 4   | All       | Prevention                   | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.  | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health                      | \$50,000     |
| 5   | All       | Prevention                   | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant application process. | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies                     | Staff Time   |
| 6   | All       | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.  | Med.           | 2008-Ongoing         | FEMA, SEMO, NYS OHS       | County EMO            | Municipalities, any interested county agency                   | TBD          |
| 7   | All       | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 8   | All       | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.   | Low            | 2008-Ongoing         | NYS DOS                   | SCWD                  | Municipalities, County Planning                                | Staff Time   |
| 9   | All       | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.                | Med.           | 2008-2012            | FEMA                      | County EMO            | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000     |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |   |                 |   |            |
|----|---|------------------------------|---|------|--------------|---|-----------------|---|------------|
| 10 | All   | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,                        | County Planning | Municipalities, County EMO  | \$50,000   |
| 18 | All   | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                                    | SWCD            | Municipalities  | \$25,000   |
| 21 | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources                         | County EMO      | Municipalities, County Planning                                   | Staff Time |
| 22 | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS                                 | County Planning | Municipalities, SWCD  | \$25,000   |
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources                         | County EMO      | County Highway, Municipalities                                    | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                                    | SWCD            | Municipalities, County Planning                                   | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                                    | SWCD            | Municipalities, County Highway                                    | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP                   | Dam Owners      | Municipalities, SWCD  | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.  | Med. | 2008-2010    | Local Resources                         | County EMO      | Municipalities  | Staff Time |
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.                       | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO      | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities.                  | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO      | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.   | Med. | 2008-2012    | FEMA                                    | County EMO      | Municipalities, County Highway, MCEER                             | TBD        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |                            |                              |   |      |              |                 |                |  |            |
|----|----------------------------|------------------------------|---|------|--------------|-----------------|----------------|--|------------|
| 46 | Earthquake                 | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.                                 | Low  | 2008-Ongoing | FEMA            | County EMO     | Municipalities, MCEER                  | \$10,000   |
| 49 | Fire                       | Property Protection          | Require containment construction for structures not currently mandated to meet code.  | Low  | 2008-2010    | Local Resources | County EMO     | Municipalities, Local Fire Depts.      | Staff Time |
| 50 | Fire                       | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station. | Low  | 2008-2010    | Local Resources | County EMO     | Municipalities, Local Fire Depts.      | Staff Time |
| 53 | Water Supply Contamination | Property Protection          | Develop a program to provide free testing of water wells.   | High | 2008-2010    | Local Resources | County Health  | Municipalities                         | Staff Time |
| 55 | Water Supply Contamination | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.          | High | 2008-2010    | NYS DOS, US EPA | SWCD           | Municipalities                         | TBD        |
| 59 | Trans. Accidents           | Prevention                   | Inventory chronic traffic signal problems.  | Med. | 2008-2010    | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000   |
| 60 | Trans. Accidents           | Prevention                   | Carry out a countywide survey of dangerous intersections.   | Med  | 2008-2010    | GTC             | County Highway | NYSDOT, County Sheriff, Municipalities | \$50,000   |

**Action Plan – Town of Stafford**

| <b>Town of Stafford Mitigation Measures (Town Lead Projects)*</b>       |           |                     |  |                |                      |                           |                       |                                       |              |
|---|-----------|---------------------|--|----------------|----------------------|---------------------------|-----------------------|---------------------------------------|--------------|
| *The Town of Stafford will implement the following mitigation projects. |           |                     |  |                |                      |                           |                       |                                       |              |
| #   | Hazard(s) | Category            | Mitigation Measure   | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                     | Approx. Cost |
| 23  | Flooding  | Prevention          | Municipal officials should begin implementing the municipal flood/drainage mitigation programs included within the Genesee County Flood Mitigation Plan.               | Med.           | 2008-Ongoing         | Local Resources, FEMA     | Municipalities        | SWCD, County Planning, County Highway | TBD          |
| 25  | Flooding  | Property Protection | Raise awareness of and enforce existing floodplain regulations.  | Med.           | 2008-Ongoing         | Local Resources           | Municipalities        | County Planning, SWCD                 | Staff Time   |
| 26  | Flooding  | Property Protection | Raise minimum residential elevations required in flood prone areas.  | Low            | 2008-2010            | NYS DOS                   | Municipalities        | County Planning, SWCD                 | \$25,000     |
| 28  | Flooding  | Property Protection | Assist flood prone homeowners/businesses to relocate out of flood zones.   | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 29  | Flooding  | Property Protection | Assist flood prone homeowners/businesses who do not want to relocate out of a designated flood zone with upgrading their properties to make them more flood-resistant. | Med.           | 2008-Ongoing         | FEMA                      | Municipalities        | SWCD                                  | TBD*         |
| 30  | Flooding  | Property Protection | Continue participation in the National Flood Insurance Program (NFIP).   | Med.           | Ongoing              | Local Resources           | All Municipalities    |                                       | Staff Time   |
| 31  | Flooding  | Public              | Disclose risks of flood zones  | Low            | 2008-                | Local                     | Municipalities        | County Planning,                      | Staff        |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                             |   |      |              |                 |                    |                        |            |
|----|---|-----------------------------|---|------|--------------|-----------------|--------------------|------------------------|------------|
|    |   | Education & Awareness       | to property owners.   |      | Ongoing      | Resources       |                    | County EMO             | Time       |
| 37 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Prevention                  | Encourage the construction of underground utilities and the retrofitting of above ground utilities to underground.  | Med. | 2008-2012    | NYS DOS         | Municipalities     | County Planning,       | Staff Time |
| 42 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Property Protection         | Require the use of hazard resistant construction.   | Med. | 2008-Ongoing | Local Resources | All Municipalities |                        | Staff Time |
| 43 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Property Protection         | Establish a strategy to encourage structural retrofits to assure roofs, walls and windows meet minimum wind-load and snow-load design factors.              | Med. | 2008-2012    | Local Resources | All Municipalities |                        | Staff Time |
| 44 | Earthquake  | Prevention                  | Adopt and enforce building codes that will enable newly built/remodeled structures to withstand earthquakes up to magnitude 6.5, which are possible in WNY. | Med. | 2008-2012    | Local Resources | Municipalities     | County Planning, MCEER | Staff Time |
| 51 | Water Supply Contamination                                      | Prevention                  | Develop overlay zoning districts to protect aquifers and surface water supply sources in local development review procedures.                               | High | 2008-2010    | NYS DOS         | Municipalities     | County Planning, SWCD  | \$25,000   |
| 52 | Water Supply Contamination                                      | Prevention                  | Enforce separation of water wells from manure storage.  | High | 2008-2010    | Local Resources | Municipalities     | SWCD                   | Staff Time |
| 58 | Hazardous Materials   | Natural Resource Protection | Ensure protection of water resources and water supplies in the vicinity of facilities housing hazardous materials.  | Low  | 2008-2012    | Staff Time      | Municipalities     | SWCD                   | Staff Time |

| <b>Town of Stafford Mitigation Measures (County Lead Projects)*</b>   |           |            |   |                |                      |                           |                       |   |              |
|---|-----------|------------|---|----------------|----------------------|---------------------------|-----------------------|---|--------------|
| *The Town of Stafford will collaborate with a County Department/Agency to implement the following projects. |           |            |   |                |                      |                           |                       |   |              |
| #   | Hazard(s) | Category   | Mitigation Measure  | Muni. Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead Agency | Involved Agencies                                     | Approx. Cost |
| 1   | All       | Prevention | Encourage municipalities to develop environmental protection overlay districts (EPODs) for sensitive areas.                                   | Med.           | 2008-2010            | Local Resources, NYS DOS  | SCWD                  | Municipalities, County Planning, NYSDEC, USEPA, USACE | TBD          |
| 2   | All       | Prevention | Develop a coordinated plan for tree maintenance that allows for maintaining power and retaining community character.                          | Med.           | 2008-2012            | Local Resources, USDA RUP | County Planning       | Municipalities Utilities                              | TBD          |
| 4   | All       | Prevention | Develop detailed maps showing the locations of utility lines, including electric, sewer, telephone, gas, and water.                           | Med.           | 2008-2010            | NYS DOS                   | County Planning       | Municipalities, County EMO, County Health             | \$50,000     |
| 5   | All       | Prevention | Run annual seminars with NYSEMO officials for local officials who are interested in obtaining more information on the hazard mitigation grant | Med.           | 2008-Ongoing         | Local Resources           | County EMO            | Municipalities, Interested County Agencies            | Staff Time   |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |   |      |              |                       |                 |  |            |
|----|---|------------------------------|---|------|--------------|-----------------------|-----------------|--|------------|
|    |   |                              | application process.  |      |              |                       |                 |  |            |
| 6  | All   | Public Education & Awareness | Develop and distribute brochures, fact sheets and web-based information related to hazard events.   | Med. | 2008-Ongoing | FEMA, SEMO, NYS OHS   | County EMO      | Municipalities, any interested county agency                   | TBD        |
| 7  | All   | Natural Resource Protection  | Encourage the protection of wetlands and aquifers wherever possible.  | Low  | 2008-Ongoing | NYS DOS               | SCWD            | Municipalities, County Planning                                | Staff Time |
| 8  | All   | Natural Resource Protection  | Encourage the revision of local laws to include measures for erosion and sediment control.  | Low  | 2008-Ongoing | NYS DOS               | SCWD            | Municipalities, County Planning                                | Staff Time |
| 9  | All   | Emergency Services           | Coordinate and communicate sheltering plans, and develop additional community buildings as emergency or evacuation shelters and/or command centers.   | Med. | 2008-2012    | FEMA                  | County EMO      | Municipalities, County Health, Office for the Aging, Red Cross | \$25,000   |
| 10 | All   | Emergency Services           | Develop a countywide compatible GIS system that allows the county and all the municipalities to share information in emergencies, including water and sewer data.                                     | Med. | 2008-2010    | NYS DOS, NYSARA,      | County Planning | Municipalities, County EMO                                     | \$50,000   |
| 18 | All   | Emergency Services           | Prepare a countywide inventory of manure storage facilities.  | Low  | 2008-2010    | USDA                  | SWCD            | Municipalities   | \$25,000   |
| 21 | Flooding  | Prevention                   | Municipal officials should consider participating in the Community Rating System (CRS).   | High | 2008-2010    | Local Resources       | County EMO      | Municipalities, County Planning                                | Staff Time |
| 22 | Flooding  | Prevention                   | Establish a procedure to transfer development rights from floodplain areas into designated receiving areas.   | Med. | 2008-2010    | NYS DOS               | County Planning | Municipalities, SWCD   | \$25,000   |
| 27 | Flooding  | Property Protection          | Develop a coordinated sandbagging plan between the County Highway Department, County Emergency Management, and select municipalities, where the county can help distribute sand in flood emergencies. | Low  | 2008-2010    | Local Resources       | County EMO      | County Highway, Municipalities                                 | Staff Time |
| 32 | Flooding  | Public Education & Awareness | Provide information for municipal officials and property owners about the possibility of buying out or raising repetitive loss properties.  | Low  | 2008-Ongoing | FEMA                  | SWCD            | Municipalities, County Planning                                | \$25,000   |
| 34 | Flooding  | Natural Resource Protection  | Develop a plan to correct stream bank erosion.  | Med  | 2008-2010    | FEMA                  | SWCD            | Municipalities, County Highway                                 | \$50,000   |
| 36 | Flooding, Dam Failure   | Structural Projects          | Replace faulty flood control devices.   | Low  | 2008-Ongoing | Local Resources, NDSP | Dam Owners      | Municipalities, SWCD   | TBD        |
| 38 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Develop and maintain an inventory of critical facilities with backup power generators.  | Med. | 2008-2010    | Local Resources       | County EMO      | Municipalities   | Staff Time |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

|    |   |                              |  |      |              |   |                |   |            |
|----|---|------------------------------|--|------|--------------|---|----------------|---|------------|
| 39 | Ice Storm, Winter Storm, Severe Storm, Tornado, Utility Failure | Emergency Services           | Obtain backup power generators and/or provide backup emergency electric service, possibly through a grant program, particularly to critical facilities and evacuation shelters.      | High | 2008-Ongoing | Local Resources, State & Federal Grants | County EMO     | Select Municipalities, Interested County Agencies                 | TBD        |
| 41 | Ice Storm, Winter Storm, Severe Storm, Tornado Utility Failure  | Emergency Services           | Enhance the emergency notification system by encouraging the purchase of NOAA Weather Radio Receivers for critical facilities such as hospitals, schools, and adult care facilities. | Low  | 2008-2012    | Local Resources, FEMA                   | County EMO     | Municipalities, CSDs, County Health, County Sheriff, Local Police | TBD        |
| 45 | Earthquake  | Prevention                   | Carry out a pre-event inspection of key buildings, bridges, and dams for seismic vulnerability.  | Med. | 2008-2012    | FEMA                                    | County EMO     | Municipalities, County Highway, MCEER                             | TBD        |
| 46 | Earthquake  | Public Education & Awareness | Inform the public of the earthquake hazard in Genesee County through a public outreach program.  | Low  | 2008-Ongoing | FEMA                                    | County EMO     | Municipalities, MCEER   | \$10,000   |
| 49 | Fire  | Property Protection          | Require containment construction for structures not currently mandated to meet code.   | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 50 | Fire  | Property Protection          | Require fire sprinklers in all new or substantially remodeled multi-family housing, regardless of distance from a fire station.  | Low  | 2008-2010    | Local Resources                         | County EMO     | Municipalities, Local Fire Depts.                                 | Staff Time |
| 53 | Water Supply Contamination                                      | Property Protection          | Develop a program to provide free testing of water wells.  | High | 2008-2010    | Local Resources                         | County Health  | Municipalities  | Staff Time |
| 55 | Water Supply Contamination                                      | Natural Resource Protection  | Encourage municipalities to develop wellhead protection plans to buffer or protect wellheads from water contamination.   | High | 2008-2010    | NYS DOS, US EPA                         | SWCD           | Municipalities  | TBD        |
| 59 | Trans. Accidents  | Prevention                   | Inventory chronic traffic signal problems.   | Med. | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |
| 60 | Trans. Accidents  | Prevention                   | Carry out a countywide survey of dangerous intersections.  | Med  | 2008-2010    | GTC                                     | County Highway | NYSDOT, County Sheriff, Municipalities                            | \$50,000   |

## **Chapter 9: Plan Adoption, Maintenance, and Update Procedures**

### **SECTION 9.1: PURPOSE**

The Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan is intended to guide Genesee County and its municipalities over the next five years in their efforts to eliminate and/or minimize the impact of hazard events to critical facilities and community assets. The Plan will serve as a continually evolving guidebook that addresses the hazard issues identified within it.

This chapter discusses the procedures by which the County and all twenty-one municipalities within it will adopt, maintain, and update the All-Hazard Mitigation Plan; as well as means by which the Plan's contents will be integrated into local land use documents and regulations.

### **SECTION 9.2: PLAN ADOPTION SYSTEM**

FEMA regulations (44 CFR Part 201 Mitigation Planning; Section 201.6: Local Mitigation Plans) stipulate that local units of government must formally adopt hazard mitigation plans. Plan adoption is accomplished by following the standard legal procedures for the adoption of local laws. The Genesee County Legislature and the municipal governing boards will adopt the Plan by passing resolutions after FEMA approves the draft Plan.

The Genesee County Legislature is the first governing body that will adopt the Plan following FEMA's approval of the draft Plan. Once the Legislature adopts the Plan, it will forward the Plan to each municipality along with a request that each local governing body adopt the Plan. Each of the County's twenty-one municipalities has a governing body (City Council, Town Board or Village Board) that will adopt the Plan at this point.

The Legislature and each municipal governing body will then provide a copy of the passed resolutions to the Genesee County Emergency Management Office. These copies will be included in the final version of the Plan document within a special appendix (Appendix C) to verify that each unit of local government has officially adopted the Plan.

### **SECTION 9.3: LOCAL LAW INTEGRATION**

A critical long-term objective (Objective 5.2) of the hazard mitigation planning process is the integration of the completed hazard mitigation plan, especially the Mitigation Strategy, with local land use documents such as comprehensive plans, zoning codes, and subdivision regulations. This should be done to institutionalize hazard mitigation planning within local laws and ordinances. In addition, local officials should work to integrate hazard mitigation projects into their Capital Improvement Plans (CIPs) and other municipal policy and budgetary planning documents.

A detailed assessment of local land use documents was completed for the Genesee County All-Hazard Mitigation Plan. This assessment was carried out in order to determine what provisions, if any, currently exist in local land use laws for reducing hazard impacts. This assessment identified gaps in the local laws that can be filled, in part, by various mitigation measures. The process of upgrading local laws to reflect and implement hazard mitigation goals, objectives, and measures should begin as soon as the Plan is adopted. The results of this assessment can be found in Appendix A, *Genesee County Local Law Assessment*.

Municipal governments should seek to incorporate the Goals and Objectives of the all-hazard mitigation plan, as well as (where relevant) specific mitigation measures, into future revisions and updates of their local land use law documents. When local land use law documents are undergoing revision, the all-hazard mitigation plan will be consulted and its recommendations incorporated into new local laws. When the all-hazard mitigation plan is undergoing revision, local land use law documents will be consulted and their contents factored into the revised version of the all-hazard mitigation plan.

#### **SECTION 9.4: PLAN IMPLEMENTATION SYSTEM**

The Genesee County Legislature is the governing body with the primary responsibility for implementing Plan recommendations related to County facilities and operations. At the discretion of the Legislature and at the direction of the County Administration, County departments and agencies will be responsible for overseeing and coordinating all activities required to assist the Legislature with implementing the Plan's recommendations.

The City Council, all Town Boards, and all Village Boards have the primary responsibility for implementing mitigation measures pertinent to their particular jurisdictions. Municipal departments and volunteer boards (planning boards and zoning boards of appeal) will assist the municipality in meeting its hazard mitigation goals.

The local governing boards can ensure implementation by setting priorities, establishing budgets and allocating resources, and securing outside funding sources by pursuing grant opportunities. Hazard mitigation projects can also be realized through partnerships between government and local entities such as hospitals, fire departments, emergency service responders, school districts, businesses, community organizations and environmental agencies.

#### **SECTION 9.5: PLAN MAINTENANCE PROCESS**

The Genesee County Legislature has designated the Genesee County Emergency Management Coordinator as the Genesee County Hazard Mitigation Coordinator. As such, the Coordinator will oversee the ongoing maintenance of the All-Hazard Mitigation Plan. Plan maintenance will consist of the annual evaluation and revision of the Plan document by the All-Hazard Mitigation Planning Committee (AHMPC).

The Plan document must be regularly maintained to reflect the continued relevance of potential hazards, the applicability of goals and objectives, the effectiveness and appropriateness of mitigation measures, and especially any progress made in implementing specific mitigation measures. Documentation of progress in realizing mitigation measures will be done by Emergency Management office staff during the annual AHMPC review.

The AHMPC consists of at least one representative from each of the County's twenty-one municipalities and the County departments and affiliated agencies listed in Chapter 3 (see Table 3.1). The County Emergency Management Office will be responsible for the overall coordination of this committee.

The annual Plan review will be carried out by the AHMPC under the Emergency Management Office's direction. The AHMPC review will occur one year after FEMA approval and then again during each successive year. The AHMPC will meet to discuss progress made in implementing the Mitigation Strategy as well as to make any necessary changes in the Risk Assessment. The Emergency Management Office will then revise the Plan document to reflect these changes.

During the annual review, the Planning Committee will follow the guidelines laid out in the FEMA publication *Bringing the Plan to Life: Implementing the Hazard Mitigation Plan* (FEMA 386-4), specifically *Step 4: Revise the Plan*. This document explains the mitigation procedures and techniques the AHMPC should consider and follow while revising the Plan.

The revision and evaluation of the Plan will be accomplished in part by soliciting comments from the general public. The Emergency Management Office will coordinate the continued public involvement component of the hazard mitigation planning process. A public hearing to inform the public of the progress made in carrying out the Plan will be held on an annual basis. These hearings will be publicized by press releases published in local newspapers and on the Internet. These notices will announce the start of the annual review process, provide the location where copies of the Plan can be obtained (City, Town and Village Halls and online at the project website), and request the submittal of comments to the Emergency Management office. The notice will allow at least 30 days for public comment prior to AHMPC review and revision. The Emergency Management Office will record and file all comments submitted by the public. These comments will be consulted by the Planning Committee during the review and revision process. When the review process is complete, the public will be notified through a second round of press releases.

In addition to the regular annual Planning Committee meetings, the County Emergency Management Office will call a meeting of the Planning Committee in the aftermath of every major disaster (a disaster in which state and/or federal aid is received by the County and/or any of its municipalities) in order to evaluate the Plan, monitor the implementation of its mitigation measures, and/or add or amend the mitigation strategy.

The Genesee County All-Hazard Mitigation Plan project website will be maintained by the Genesee/Finger Lakes Regional Planning Council until the Genesee County Emergency Management Office deems otherwise. If/when the Emergency Management Office decides to move the project website to a new host, it will coordinate with G/FLRPC to accomplish this.

**Plan Maintenance Schedule**

The following annual plan maintenance schedule indicates the basic timeline, responsible parties and corresponding activities involved in the plan maintenance process:

| <b>Annual Plan Maintenance Schedule</b> |   |   |
|---|---|---|
| <b>Target Date:</b>                     | <b>Responsible Party:</b>                   | <b>Activity:</b>  |
| January                                 | Genesee County Emergency Management Office* | The Genesee County Emergency Management Office (EMO) will distribute a reminder letter with an Annual Status Report (ASR) form to each municipality and county agency that sits on the All-Hazard Mitigation Planning Committee (AHMPC).  |
| February-March                          | Genesee County Emergency Management Office  | Schedule a meeting of the AHMPC for plan review and ASR completion. Each municipality and county agency will delegate at least one representative to sit on this committee.<br><br>Hold the AHMPC meeting. Distribute copies of the ASR form to the attendees and request they complete and return them to the EMO by the end of April. |

|  |   |   |
|--|---|---|
|  |   | <p>The EMO will distribute press releases to local newspapers and for posting to the project website. These releases will inform the public that the annual plan maintenance process is underway. The public will be requested to submit questions/comments for the AHMPC to consider while revising the plan. A thirty (30) day period will be set for the submission and receipt of public comments. All public comments will be documented and filed by the EMO.</p> |
| March-April  | Genesee County All-Hazard Mitigation Planning Committee; Genesee County Emergency Management Office | <p>The representatives of each municipality and county agency that sits on the AHMPC will fill out and return their ASRs to the EMO for review.</p> <p>The EMO will begin revising the plan document to reflect the contents of the ASRs. Where applicable, the EMO will integrate any/all public comments into the plan document.</p>  |
| May  | Genesee County Emergency Management Office  | <p>The EMO will collect all outstanding ASRs and complete the revisions of the plan document.</p> <p>The EMO will prepare an Annual Update Report (AUP) and make it available for public comment. The AUP will list all amendments to the plan document.</p>  |
| June   | Genesee County All-Hazard Mitigation Planning Committee; Genesee County Emergency Management Office | <p>The AHMPC will review the revised plan document and confirm all amendments with the EMO.</p> <p>The EMO will integrate any final alterations requested by the AHMPC into the plan document.</p> <p>The revised plan will be posted online at the project website.</p> <p>A public hearing will be held to inform the general public of the plan's status, and what changes were made to it, and what, if any, projects are currently being implemented.</p>          |
| <p>*The Genesee County Emergency Management Coordinator is the County's designated Hazard Mitigation Officer. This individual will be ultimately responsible for the coordination of the Plan Maintenance process.</p> |   |   |

**PLAN UPDATE PROCESS**

FEMA regulations (44 CFR Part 201 Mitigation Planning; Section 201.6: Local Mitigation Plans) mandate that the Genesee County All-Hazard Mitigation Plan be updated every five years. This means that every five years FEMA Region II must review and re-approve an updated version of the Plan. In order for Genesee County and its municipalities to remain eligible for FEMA project grant funding, this update must be completed and FEMA's approval of the revised Plan obtained by the five year anniversary of FEMA's initial approval of the Plan.

In order to ensure sufficient time for the FEMA review process, work on the plan update will begin at the four year anniversary of the Plan's initial FEMA approval. The Genesee County Emergency

Management Office will coordinate the update process. The updates will be based primarily on revisions made during the annual AHMPC reviews as well as comments gathered from the general public by the public outreach process described above.

The update process will follow the same procedures as the annual evaluation and revision of the Plan. However, as the schedule below indicates, it will include several additional steps aimed at broadening the Plan’s scope and including additional organizations within the planning process. The Update process should be thought of simply as a more intensive Maintenance process.

When the AHMPC’s revisions are complete, the Emergency Management Office will forward the Plan to NYSEMO for review. NYSEMO will return the plan to the Emergency Management Office with comments for the Planning Committee to address prior to submitting the plan to FEMA. The Planning Committee will make the necessary changes and return the Plan to NYSEMO. Once NYSEMO is satisfied with the revised Plan, it will forward the Plan to FEMA Region II for review and revision.

After FEMA Region II approves the updated Plan, the Genesee County Legislature and the town and village boards will adopt a resolution approving a revised and updated version of the plan.

**Plan Update Schedule**

The Five Year Plan Update Schedule is basically identical to the plan maintenance schedule, with a few additional activities. The following schedule indicates the basic timeline, responsible parties and corresponding activities involved in the plan update process:

| <b>Five Year Plan Update Schedule</b> |   |   |
|---------------------------------------|---|---|
| <b>Target Date:</b>                   | <b>Responsible Party:</b>                   | <b>Activity:</b>  |
| January                               | Genesee County Emergency Management Office* | <p>The Genesee County Emergency Management Office (EMO) will distribute a reminder letter with an Annual Status Report (ASR) form to each municipality and county agency that sits on the All-Hazard Mitigation Planning Committee (AHMPC).</p> <p>In addition to the AHMPC, the EMO will contact affiliated entities including local school districts, academia, the business community, and other relevant public and non-profit entities to invite their participation in this process.</p>  |
| February-March                        | Genesee County Emergency Management Office  | <p>Schedule a meeting of the AHMPC and other entities for plan review and ASR completion. Each municipality and county agency will delegate at least one representative to sit on this committee.</p> <p>Hold the AHMPC meeting. Distribute copies of the ASR form to the attendees and request they complete and return them to the EMO by the end of April.</p> <p>Affiliated entities (see above) should also be invited to this meeting and participate in the update process.</p> <p>The EMO will distribute press releases to local</p> |

Draft Genesee County Multi-Jurisdictional All-Hazard Mitigation Plan

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|---|---|--|
|   |   | <p>newspapers and for posting to the project website. These releases will inform the public that the annual plan maintenance process is underway and request the submittal of questions/comments for the AHMPC to consider while revising the plan. All public comments will be documented and filed by the EMO.</p>   |
| March-April   | Genesee County All-Hazard Mitigation Planning Committee; Genesee County Emergency Management Office | <p>The representatives of each municipality and county agency that sits on the AHMPC will fill out and return their ASRs to the EMO for review. Where applicable, the representatives of affiliated agencies should also complete an ASR for incorporation into the Plan.</p> <p>The EMO will begin revising the plan document to reflect the contents of the ASRs. Where applicable, the EMO will integrate any/all public comments into the plan document.</p> |
| May   | Genesee County Emergency Management Office  | <p>The EMO will collect all outstanding ASRs and complete the revisions of the plan document.</p> <p>The EMO will prepare an Annual Update Report (AUP) and make it available for public comment. The AUP will list all amendments to the plan document.</p>   |
| June  | Genesee County All-Hazard Mitigation Planning Committee; Genesee County Emergency Management Office | <p>The AHMPC will meet to review the revised plan document and confirm all amendments with the EMO.</p> <p>The EMO will integrate any final alterations requested by the AHMPC into the plan document.</p> <p>The revised plan will be posted online at the project website.</p> <p>A public hearing will be held to inform the general public of the plan's status and what changes were made to it.</p>  |
| July-September  | Genesee County Emergency Management Office  | <p>The EMO will submit the updated plan document to the New York State Emergency Management Office (NYSEMO) on or prior to September 30<sup>th</sup>.</p>  |
| <p>*The Genesee County Emergency Management Coordinator is the County's designated Hazard Mitigation Officer. This individual will be ultimately responsible for the coordination of the Plan Update process.</p> |   |  |

# Appendix A

## Genesee County Local Law Assessment

| Alabama, Town  |     |    | Local Law Assessment  |                                    |
|--|-----|----|---|------------------------------------|
| Does the municipality have:                          | Yes | No | Reference:  | Comments:                          |
| Comprehensive/Master Plan                            | Y   |    | Oakfield – Alabama Comprehensive Plan For the Town of Oakfield, Town of Alabama, and Village of Oakfield  | Adopted June 2005                  |
| Zoning Ordinance                                     | Y   |    | Town of Alabama Zoning Law  | Adopted 1987/ Amended through 2000 |
| Subdivision Ordinance                                | Y   |    | Town of Alabama Subdivision Regulations   | Adopted September 2005             |
| Site Plan Review Process                             | Y   |    | Town of Alabama Subdivision Regulations, Article III – Procedure for Filing Section 1: Sketch Plan  |                                    |
| Code or Zoning Enforcement Officer                   | Y   |    | Town of Alabama Zoning Law, Article VIII – Administration and Enforcement Section 801: Enforcement  | Zoning Enforcement Officer         |
| Flood Mitigation Plan                                |     |    | Pending...  |                                    |
| Building Codes Pertaining to Flooding                |     |    | Pending...  |                                    |
| Flood Officer (if NFIP community)                    |     |    | Pending...  |                                    |
| Provision for Repetitive Flooding Property           | Y   |    | Town of Alabama Zoning Law, Article IV – General Regulations, Section 401: Buildings, Uses, and Lots: E. Lots Under Water or Subject to Flooding<br><br>Town of Alabama Subdivision Regulations, Article IV – Design Standards Section 1: General Conditions: A. Character of Land: Land to be subdivided shall be of such character that it can be used safely for intended purposes without danger to health or peril from fire, flood, or other menace.<br>Section 2: Design Standards of Improvements: G. Floodplains |                                    |
| Drainage Regulations Related to Flooding/Storm Water | Y   |    | Town of Alabama Zoning Law, Article VII – Mobile Homes and Mobile Home Parks 3C: Storm Water Drainage<br><br>Town of Alabama Subdivision Regulations, Article IV – Design Standards Section 2: Design Standards of Improvements: D. Storm water drainage, erosion and sediment control measures and easements.<br><br>Article V – Improvements Section 1: General Improvements: B. Storm Drains   |                                    |
| Sediment and Erosion Control Measures                | Y   |    | Town of Alabama Zoning Law, Article IV – General Regulations Section 402: Supplementary Yard Regulations, Stripping, and Excavations: H. Top Soil I. Excavation During Construction. Section 407: Dwelling Front Yard Grade:  |                                    |

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|  |   |   | <p>Surface grade of front yards of dwellings measured at the midpoint of the front wall, shall be at least one foot above the elevation of the road's center line, unless adequate site drainage is provided otherwise and approved by the Highway Department (s) which has responsibility for the highway(s) involved.</p> <p>Article V – Zoning District Regulations<br/>Section 607: Commercial Excavation:<br/>I. Topsoil.<br/>J. Erosion – The applicant shall include a plan for the control of soil erosion.<br/>L. Required Plans – The applicant shall submit the following three plans:<br/>1. Life of Mine Plan<br/>2. Mining Plan<br/>3. Reclamation Plan</p> <p>Town of Alabama Subdivision Regulations<br/>Article IV – Design Standards<br/>Section 2: Design Standards of Improvements:<br/>D. Storm water drainage, erosion and sediment control measures and easements.</p> |  |
| Regulations for Prevention of Water Supply Contamination                     | Y |   | <p>Town of Alabama Subdivision Regulations, Article V – Improvements<br/>Section 1: General Improvements:<br/>E. Wastewater Treatment Systems<br/>F. Water Supply Systems</p>   |  |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris | Y |   | <p>Town of Alabama Zoning Law, Article IV – General Regulations<br/>Section 402: Supplementary Yard Regulations, Stripping, and Excavations<br/>D. Visibility at Intersections</p> <p>Article V – Zoning District Regulations<br/>Section 607: Commercial Excavation<br/>G. Roadside Landscape</p> <p>Town of Alabama Subdivision Regulations, Article IV – Design Standards<br/>Section 2: Design Standards of Improvements<br/>E. Landscaping and ground cover.</p>   |  |
| Regulations for De-Icing Roads, Plowing                                      |   | N |   |  |
| Identification of Wetland Areas  | Y |   | <p>Oakfield – Alabama Comprehensive Plan For the Town of Oakfield, Town of Alabama, and Village of Oakfield<br/>4.0 Existing Conditions of the Communities<br/>4.1 Natural Environment<br/>4.3.4 Flooding and Wetlands</p>  |  |
| Watershed Management Plan  |   | N |   |  |
| Section on Location of Major Pipelines                                       | Y |   | <p>Oakfield – Alabama Comprehensive Plan For the Town of Oakfield, Town of Alabama, and Village of Oakfield</p>   |  |

|   |   |   |   |  |
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|   |   |   | <p>4.0 Existing Conditions of the Communities<br/>4.6 Utilities</p> <p>Town of Alabama Subdivision Regulations,<br/>Article VI – Documents to be submitted<br/>Section 3: Major Subdivision Preliminary<br/>Plat and Accompanying Data<br/>A. 6. Location of existing sewers, water<br/>mains, culverts, and drains on the property,<br/>with pipe size, grades and direction of flow.<br/>9. The approximate location and size of all<br/>proposed water lines, valves, hydrants, and<br/>sewer lines, and fire alarm boxes.<br/>10. Storm drainage plan indicating the<br/>approximate location and size of proposed<br/>lines and their profiles. Connection to<br/>existing lines or alternate means of disposal.</p> |  |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | <p>Town of Alabama Zoning Law, Article VII –<br/>Mobile Homes and Mobile Home Parks<br/>4. Lot and Mobile Home Requirements:<br/>J. All utilities shall be underground.</p> <p>Town of Alabama Subdivision Regulations,<br/>Article IV – Design Standards<br/>Section 2: Design Standards of<br/>Improvements :<br/>C. Utility Easements: All utilities which are<br/>primarily intended to provide service to the<br/>lots within the Subdivision shall be installed<br/>underground at a depth and at such locations<br/>as will minimize risk of interruption of<br/>service.</p>  |  |
| Natural Resource Inventory  | Y |   | <p>Oakfield – Alabama Comprehensive Plan For<br/>the Town of Oakfield, Town of Alabama, and<br/>Village of Oakfield<br/>4.0 Existing Conditions of the Communities<br/>4.1 Natural Environment</p> <p>Town of Alabama Subdivision Regulations,<br/>Article IV – Design Standards:<br/>Section 2: Design Standards of<br/>Improvements<br/>F. Preservation of Natural Features</p>   |  |
| Regulations for Unsafe/Defective Structures   |   | N |   |  |
| Environmental Overlays in Local Development Review Procedures                         | Y |   | <p>Town of Alabama Zoning Law, Article V –<br/>Zoning District Regulations<br/>Section 501: Agricultural-Residential<br/>District A-R<br/>Section 505: Land Conservation – LC<br/>Section 507: Flood Plain Overlay Zone –<br/>FPO</p>   |  |
| Riparian protections or setbacks  |   | N |   |  |
| Timber harvesting regulations   |   | N |   |  |

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| Steep slope regulations or consideration within zoning or site plan review |   | N |   |                               |
| Incompatible uses  | Y |   | Town of Alabama Zoning Law, Article IV – General Regulations<br>Section 404: Nonconforming Uses, Structures and Lots<br>Section 405: Uses Not Permitted |                               |
| Participation in the Federal Community Rating System                       |   | N |   |                               |
| Participation in National Flood Insurance Program                          | Y |   |   | FEMA Community Number 3610G7C |

| <b>Alexander, Town</b>                     |            |           | <b>Local Law Assessment</b>   |                                       |
|--|------------|-----------|---|---------------------------------------|
| <b>Does the municipality have:</b>         | <b>Yes</b> | <b>No</b> | <b>Reference:</b>   | <b>Comments:</b>                      |
| Comprehensive/Master Plan                  | Y          |           | Town of Alexander Comprehensive Plan (Draft)  | January 2003                          |
| Zoning Ordinance                           | Y          |           | Town of Alexander Zoning Ordinance  | Adopted 1991/<br>Amended through 1997 |
| Subdivision Ordinance                      | Y          |           | Town of Alexander Land Separation Local Law and Land Subdivision Law  | Adopted 2000                          |
| Site Plan Review Process                   | Y          |           | Town of Alexander Zoning Ordinance<br>Section 808: Planning Board<br>C. Site Plan Review<br><br>Town of Alexander Land Separation Local Law and Land Subdivision Law,<br>Article III – Procedure for Filing:<br>Section 1: Sketch Plan  |                                       |
| Code or Zoning Enforcement Officer         | Y          |           | Town of Alexander Zoning Ordinance,<br>Article VIII – Administration and Enforcement<br>Section 801: Enforcement  | Zoning Enforcement Officer            |
| Flood Mitigation Plan                      |            | N         |   |                                       |
| Building Codes Pertaining to Flooding      |            | N         |   |                                       |
| Flood Officer (if NFIP community)          |            | N         |   |                                       |
| Provision for Repetitive Flooding Property | Y          |           | Town of Alexander Zoning Ordinance,<br>Article IV – General Regulations<br>Section 401: Buildings, Uses and Lots:<br>E. Lots Under Water or Subject to Flooding<br><br>Town of Alexander Land Separation Local Law and Land Subdivision Law,<br>Article IV – Design Standards<br>Section 1: General Conditions:<br>A. Character of Land: Land to be subdivided shall be of such character that it can be used safely for intended purposes without danger to health or peril from fire, flood, or other menace.<br>Section 2: Design Standards of Improvements: |                                       |

|  |   |   |  |  |
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|  |   |   | G. Floodplains   |  |
| Drainage Regulations Related to Flooding/Storm Water                         | Y |   | <p>Town of Alexander Zoning Ordinance, Article VI – Supplementary Regulations Section 607: Commercial Excavation:<br/>B. Minor Excavation<br/>4. Drainage</p> <p>Article VII – Single Mobile Homes and Mobile Home Parks<br/>Section 702: Mobile Home Parks:<br/>4. Site Layout and Design Requirements<br/>c. Storm Water Drainage</p> <p>Town of Alexander Land Separation Local Law and Land Subdivision Law, Article IV – Design Standards<br/>Section 2: Design Standards of Improvements:<br/>D. Storm Water Drainage, Erosion, and Sediment Control Measures and Easements</p> <p>Article V – Improvements<br/>Section 1: General Improvements:<br/>B. Storm Drains</p> |  |
| Sediment and Erosion Control Measures  | Y |   | <p>Town of Alexander Zoning Ordinance, Article VI – Supplementary Regulations Section 607: Commercial Excavation:<br/>B. Minor Excavation<br/>8. Topsoil<br/>9. Erosion</p> <p>Town of Alexander Land Separation Local Law and Land Subdivision Law, Article IV – Design Standards<br/>Section 2: Design Standards of Improvements:<br/>D. Storm Water Drainage, Erosion, and Sediment Control Measures and Easements</p>  |  |
| Regulations for Prevention of Water Supply Contamination                     | Y |   | <p>Town of Alexander Land Separation Local Law and Land Subdivision Law, Article V – Improvements<br/>Section 1: General Improvements:<br/>E. Wastewater Treatment Systems<br/>F. Water Supply Systems</p>   |  |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris | Y |   | <p>Town of Alexander Land Separation Local Law and Land Subdivision Law, Article IV – Design Standards<br/>Section 2: Design Standards of Improvements:<br/>E. Landscaping and ground cover.</p>   |  |
| Regulations for De-Icing Roads, Plowing                                      |   | N |  |  |
| Identification of Wetland Areas  | Y |   | <p>Town of Alexander Comprehensive Plan Natural Resources: - Existing Conditions: Watersheds and Streams, Flood Hazard Areas, Wetlands, Groundwater</p>  |  |

|   |   |   |  |
|---|---|---|--|
| Watershed Management Plan   |   | N |  |
| Section on Location of Major Pipelines  | Y |   | Town of Alexander Land Separation Local Law and Land Subdivision Law, Article VI – Documents to be submitted<br>Section 2: Preliminary Plat and Accompanying Data:<br>A. Requirements<br>6. Location of any existing sewers, water mains, culverts, and drains on the property, with pipe sizes, grades and direction of flow.<br>9. The approximate location and size of any proposed water lines, valves, hydrants and sewer lines, and fire alarm boxes.<br>Connection to existing line or alternate means of water supply or sewage disposal and treatment as provided in the Public Health Law or Environmental Conservation Law. Profiles of all proposed water and sewer lines. |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | Town of Alexander Zoning Ordinance, Article VII – Single Mobile Homes and Mobile Home Parks<br>Section 702: Mobile Home Parks:<br>4J. All utilities shall be underground.<br><br>Town of Alexander Land Separation Local Law and Land Subdivision Law, Article IV – Design Standards<br>Section 2: Design Standards of Improvements:<br>C. Utility Easements: Also, all utilities which are primarily intended to provide service to the lots within the subdivision shall be installed underground at a depth and at such locations as will minimize risk of interruption of service.   |
| Natural Resource Inventory  | Y |   | Town of Alexander Land Separation Local Law and Land Subdivision Law, Article IV – Design Standards<br>Section 2: Design Standards of Improvements:<br>F. Preservation of Natural Features<br><br>Town of Alexander Comprehensive Plan (Draft)<br>2. Natural Resources   |
| Regulations for Unsafe/Defective Structures   |   | N |  |
| Environmental Overlays in Local Development Review Procedures                         | Y |   | Town of Alexander Zoning Ordinance, Article V – Zoning District Regulations<br>Section 501: Agricultural-Residential District (A-R)<br>Section 505: Flood Plain Overlay Zone   |
| Riparian protections or setbacks  |   | N |  |
| Timber harvesting   |   | N |  |

|  |   |   |  |                                 |
|--|---|---|--|---------------------------------|
| regulations  |   |   |  |                                 |
| Steep slope regulations or consideration within zoning or site plan review |   | N |  |                                 |
| Incompatible uses  | Y |   | Town of Alexander Zoning Ordinance, Article IV – General Regulations<br>Section 404: Nonconforming Uses, Structures and Lots |                                 |
| Participation in the Federal Community Rating System                       |   | N |  |                                 |
| Participation in National Flood Insurance Program                          | Y |   |  | FEMA Community Number<br>360277 |

| <b>Alexander, Village</b>                            |            |           | <b>Local Law Assessment</b>  |                            |
|--|------------|-----------|--|----------------------------|
| <b>Does the municipality have:</b>                   | <b>Yes</b> | <b>No</b> | <b>Reference:</b>  | <b>Comments:</b>           |
| Comprehensive/Master Plan                            |            | N         |  |                            |
| Zoning Ordinance                                     | Y          |           | Village of Alexander Zoning Law  | Adopted 1975, Revised 2004 |
| Subdivision Ordinance                                |            | N         |  |                            |
| Site Plan Review Process                             | Y          |           | Village of Alexander Zoning Law, Article II – Administration<br>Section 208: Planning Board:<br>B. Power and Duties<br>1. Site Plan Review   |                            |
| Code or Zoning Enforcement Officer                   | Y          |           | Village of Alexander Zoning Law, Article II – Administration<br>Section 201: Enforcement   | Zoning Enforcement Officer |
| Flood Mitigation Plan                                |            | N         |  |                            |
| Building Codes Pertaining to Flooding                |            | N         |  |                            |
| Flood Officer (if NFIP community)                    |            | N         |  |                            |
| Provision for Repetitive Flooding Property           |            | N         |  |                            |
| Drainage Regulations Related to Flooding/Storm Water | Y          |           | Village of Alexander Zoning Law, Article III – Land Use and Zoning Regulations<br>Section 303: Stormwater Drainage, Flood Damage Control, Ponds, and Stream Bank Stabilization<br><br>Article IV – Supplementary Use-Specific Regulations<br>Section 405: Mobile Homes and Mobile Home Parks:<br>E. Required Improvements<br>9. Storm Water Drainage |                            |
| Sediment and Erosion Control Measures                | Y          |           | Village of Alexander Zoning Law, Article III – Land Use and Zoning Regulations<br>Section 303: Stormwater Drainage, Flood Damage Control, Ponds, and Stream Bank Stabilization:<br>C3. All excavation shall have appropriate   |                            |

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|  |   |   | <p>erosion control devices to mitigate the movement of soils or water onto adjoining property.</p> <p>Village of Alexander Zoning Law,<br/>Article IV – Supplementary Use-Specific Regulations<br/>Section 208: Planning Board:<br/>C. Site Plan Review<br/>1. Submission of Site Plan and Data<br/>k. Description of proposed measures to control runoff and drainage from the site and when required by NYS Department of Environmental Conservation and/or State Environmental Quality Review process, a Stormwater Management and Erosion Control Plan.</p>  |  |
| Regulations for Prevention of Water Supply Contamination                     | Y |   | <p>Village of Alexander Zoning Law,<br/>Article IV – Supplementary Use-Specific Regulations<br/>Section 405: Mobile Homes and Mobile Home Parks:<br/>E. Required Improvements<br/>1. Water and Sewage System</p>   |  |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris | Y |   | <p>Village of Alexander Zoning Law,<br/>Article III – Land Use and Zoning Regulations<br/>Sec. 302C: Visibility at Intersections.<br/>Section 303: Stormwater Drainage, Flood Damage Control, Ponds, and Stream Bank Stabilization :<br/>C9. In the course of construction and during the course of regular property maintenance, any existing trees with a caliper diameter greater than six (6) inches located within twenty-five (25) feet of the top of a stream bank or known drainage channel shall be protected and remain intact.</p> <p>Article IV – Supplementary Use-Specific Regulations<br/>Section 405: Mobile Homes and Mobile Home Parks:<br/>E. Required Improvements<br/>10. Landscaping</p> |  |
| Regulations for De-Icing Roads, Plowing                                      |   | N |  |  |
| Identification of Wetland Areas  |   | N |  |  |
| Watershed Management Plan  |   | N |  |  |
| Section on Location of Major Pipelines                                       | Y |   | <p>Village of Alexander Zoning Law,<br/>Article IV – Supplementary Use-Specific Regulations<br/>Section 208: Planning Board:<br/>C. Site Plan Review<br/>1. Submission of Site Plan and Data</p>   |  |

|   |   |   |  |                       |
|---|---|---|--|-----------------------|
|   |   |   | G. Preliminary engineering plans, street improvements, storm drainage, water supply and sanitary system facilities and fire protection.  |                       |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | Village of Alexander Zoning Law, Article IV – Supplementary Use-Specific Regulations<br>Section 405: Mobile Homes and Mobile Home Parks:<br>E2. Underground Utilities: Electrical systems, gas piping systems, cable and telephone wires, and community and individual fuel storage shall be installed underground and maintained in compliance with the NYS Uniform Code. |                       |
| Natural Resource Inventory  |   | N |  |                       |
| Regulations for Unsafe/Defective Structures   | Y |   | Village of Alexander Zoning Law, Article III – Land Use and Zoning Regulations<br>Section 300B: Abandonment  |                       |
| Environmental Overlays in Local Development Review Procedures                         | Y |   | Village of Alexander Zoning Law, Article III – Land Use and Zoning Regulations<br>Section 310: Land Conservation (LC) District   |                       |
| Riparian protections or setbacks  |   | N |  |                       |
| Timber harvesting regulations   |   | N |  |                       |
| Steep slope regulations or consideration within zoning or site plan review            |   | N |  |                       |
| Incompatible uses   | Y |   | Village of Alexander Zoning Law, Article III – Land Use and Zoning Regulations<br>Section 300: Non-Conforming Uses   |                       |
| Participation in the Federal Community Rating System                                  |   | N |  |                       |
| Participation in National Flood Insurance Program                                     | Y |   |  | Most Recent FIRM 1987 |

| <b>Batavia, City</b>               |            |           | <b>Local Law Assessment</b>  |                               |
|------------------------------------|------------|-----------|--|-------------------------------|
| <b>Does the municipality have:</b> | <b>Yes</b> | <b>No</b> | <b>Reference:</b>  | <b>Comments:</b>              |
| Comprehensive/Master Plan          | Y          |           | City of Batavia Comprehensive Master Plan  | Adopted 1997                  |
| Zoning Ordinance                   | Y          |           | City of Batavia Code, Chapter 190: Zoning (City of Batavia Zoning Ordinance)                                       | Adopted 1981/ with Amendments |
| Subdivision Ordinance              | Y          |           | City of Batavia Code, Chapter 162: Subdivision of Land   | Adopted 1981/ with Amendments |
| Site Plan Review Process           | Y          |           | City of Batavia Code, Chapter 190: Zoning Article IX – Supplementary Regulations: Section 190-44: Site plan review |                               |

|  |   |   |   |                               |
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| Code or Zoning Enforcement Officer                       | Y |   | City of Batavia Code, Chapter 190: Zoning Article X – Administration:<br>Section 190-45: Code Enforcement Officer   | Code Enforcement Officer      |
| Flood Mitigation Plan                                    |   | N |   |                               |
| Building Codes Pertaining to Flooding                    | Y |   | City of Batavia Code, Chapter 87: Flood Damage Prevention<br>Article V – Construction Standards:<br>Section 87-14: General standards<br>Section 87-15: Standards for all structures   | Adopted 2002/ with Amendments |
| Flood Officer (if NFIP community)                        | Y |   | City of Batavia Code, Chapter 87: Flood Damage Prevention<br>Article IV – Administration:<br>Section 87-10: Designation of local administrator  | City Engineer                 |
| Provision for Repetitive Flooding Property               |   | N |   |                               |
| Drainage Regulations Related to Flooding/Storm Water     | Y |   | City of Batavia Code, Chapter 190: Zoning Article VII – Special Districts:<br>Section 190-27: Planned Development District P-4. 4. The proposed development will be adequately served by essential public facilities and services, including, but not limited to sanitary sewers, public water supply, stormwater drainage facilities, street capacity, police protection, fire-suppression services and public schools as well as other public and private facilities and services essential to support and serve the proposed residential use.<br><br>City of Batavia Code, Chapter 162: Subdivision of Land<br>Article IV – Design Standards:<br>Section 162-27: Storm drainage.<br><br>City of Batavia Comprehensive Master Plan, III. Recommendations<br>B. Environmental Resources<br>- Create a Detailed Map of the Floodplain<br>- Mitigate Flooding Near Centennial Park<br>E. Capital Facilities<br>Utility Service<br>- Continue Current Storm Water Practices |                               |
| Sediment and Erosion Control Measures                    | Y |   | City of Batavia Code, Chapter 190: Zoning Article IX – Supplementary Regulations:<br>Section 190-34: Landscaping and buffering.<br>F. Plan review.<br>2. Final landscaping and/or buffering plan.<br>j. Methods of controlling erosion and protecting landscaped areas, if determined necessary by the City Engineer.   |                               |
| Regulations for Prevention of Water Supply Contamination | Y |   | City of Batavia Code, Chapter 184: Water Section 184-32: Backflow prevention.<br><br>City of Batavia Comprehensive Master Plan, III. Recommendations<br>B. Environmental Services   | Adopted 1993/ with Amendments |

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|   |   |   | - Upgrade and Protect the Water Quality of Tonawanda Creek<br>- Implement Wellhead Protection Measures  |                               |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris          | Y |   | City of Batavia Code, Chapter 96: Grass, Weeds, and Debris<br><br>City of Batavia Code, Chapter 162: Subdivision of Land<br>Article V – Required Utilities and Improvements:<br>Section 162-32: Required utilities and improvements.<br>G. Shade trees. At least one shade tree shall be provided per residential lot. Tree planting is prohibited within five feet of sidewalk.<br>Tree planting is prohibited in the area between the sidewalk and the curb.  | Adopted 1981/ with Amendments |
| Regulations for De-Icing Roads, Plowing   |   | N |   |                               |
| Identification of Wetland Areas   | Y |   | City of Batavia Comprehensive Master Plan,<br>II. Existing Conditions<br>I. Environmental Features<br>2. Wetlands   |                               |
| Watershed Management Plan   |   | N |   |                               |
| Section on Location of Major Pipelines  | Y |   | City of Batavia Code, Chapter 190: Zoning<br>Article IX – Supplementary Regulations:<br>Section 190-44: Site plan review<br>3. Site plan review<br>d. Stormwater drainage, water supply, sanitary sewer and location of fire hydrants.<br><br>City of Batavia Code, Chapter 162: Subdivision of Land<br>Article II – Preliminary Plats:<br>Section 162-14: Preparation of preliminary plat.<br>E. Existing utilities on and adjacent to tract. All existing utilities must be identified and approximate locations shall be shown.<br>J. New utilities. Proposed plan of utilities with approximate pipe sizes. |                               |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | City of Batavia Code, Chapter 190: Zoning<br>Article VII – Special Districts:<br>Section 190-27: Planned Development District (P-4)<br>b. General Requirements<br>4. All utility which lines providing electric, gas, telephone, television or other similar services shall be installed underground.   |                               |
| Natural Resource Inventory  | Y |   | City of Batavia Comprehensive Master Plan,<br>II. Existing Conditions<br>1. Environmental Features  |                               |
| Regulations for Unsafe/Defective Structures   | Y |   | City of Batavia Code, Chapter 190: Zoning<br>Article IX – Supplementary Regulations:<br>Section 190-36: Non-Conforming Uses:<br>Nothing in this chapter shall prevent the restoration, rebuilding or repairing damaged  |                               |

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|  |   |   | structures.   |                       |
| Environmental Overlays in Local Development Review Procedures              | Y |   | City of Batavia Code, Chapter 190: Zoning Article VII – Special Districts:<br>Section 190-22: Land Conservation Districts.  |                       |
| Riparian protections or setbacks   | Y |   | City of Batavia Comprehensive Master Plan, III. Recommendations<br>5. Recreation and Open Space<br>- Implement an Overlay Protection District. Limit future development within this area to those uses that would not strictly impact the water quality and protect sensitive creek edges. An example would be to restrict development within one-hundred (100) feet of the Creek's edge. |                       |
| Timber harvesting regulations  |   | N |   |                       |
| Steep slope regulations or consideration within zoning or site plan review |   | N |   |                       |
| Incompatible uses  | Y |   | City of Batavia Code, Chapter 190: Zoning Article IX – Supplementary Regulations:<br>Section 190-36: Nonconforming uses.  |                       |
| Participation in the Federal Community Rating System                       |   | N |   |                       |
| Participation in National Flood Insurance Program                          | Y |   |   | Most Recent FIRM 1982 |

| <b>Batavia, Town</b>                  |            |           |   | <b>Local Law Assessment</b>  |
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| <b>Does the municipality have:</b>    | <b>Yes</b> | <b>No</b> | <b>Reference:</b>   | <b>Comments:</b>             |
| Comprehensive/Master Plan             | Y          |           | Town of Batavia Comprehensive Master Plan   | Adopted 1993                 |
| Zoning Ordinance                      | Y          |           | Town of Batavia Zoning Ordinance  | Adopted 1997/Amended 2000    |
| Subdivision Ordinance                 | Y          |           | Town of Batavia Land Subdivision Regulations  | Adopted 1969/Amended 1994    |
| Site Plan Review Process              | Y          |           | Town of Batavia Zoning Ordinance, Article VII – Administration and Enforcement § 235-63. Planning Board:<br>C. Site Plan Review.  |                              |
| Code or Zoning Enforcement Officer    | Y          |           | Town of Batavia Zoning Ordinance, Article VII – Administration and Enforcement<br>Section 235-56: Enforcement officers.   | Building Inspector           |
| Flood Mitigation Plan                 |            | N         |   |                              |
| Building Codes Pertaining to Flooding | Y          |           | Town of Batavia Town Code, Chapter 112: Flood Damage Prevention<br>Section 112-14: Standards for all structures.<br>Section 112-15: Standards for all structures.<br>Section 112-16: Elevation of residential structures. | Adopted 1996/with Amendments |

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| Flood Officer (if NFIP community)                    | Y |  | Town of Batavia Town Code, Chapter 112: Flood Damage Prevention<br>Section 112-10: Designation of local administrator.  | Building Inspector |
| Provision for Repetitive Flooding Property           | Y |  | Town of Batavia Zoning Ordinance, Article III – General Regulations<br>Section 301E: Lots Under Water or Subject to Flooding<br><br>Town of Batavia Land Subdivision Regulations, Article IV – Development Standards for Subdivisions<br>Section 1-A: Character of Land: Land to be subdivided shall be of such character that it can be used safely for intended purposes without danger to health or peril from fire, flood, or other menace.   |                    |
| Drainage Regulations Related to Flooding/Storm Water | Y |  | Town of Batavia Zoning Ordinance, Article V – Supplementary Regulations<br>Section 235-48: Ponds. The purpose of this section is to provide for the construction of ponds that are adequately designed and located so as to not pose adverse impacts upon surrounding land uses. Farm water supply, conservancy, stormwater/erosion control and fire protection or other ponds may be located within the AG, AG-R, C, I and IP Districts upon issuance of a special use permit provided the following criteria are met...<br>Section 507: Commercial excavation:<br>B. Minor excavation<br>4. Drainage. All surface drainage and any waste matter shall be controlled to prevent any silt, waste products, process residues, etc., from flowing onto public roads or adjacent property or into any stream. Excavation areas shall be planned and graded to avoid collections of stagnant water.<br><br>Article VII – Administration and Enforcement<br>Section 708: Planning Board:<br>D. Special use permit<br>8. Standards applicable for all special use permits.<br>8. Appropriate on-lot drainage shall be provided so as to eliminate any potential on-site water related problems. Also, the drainage systems created shall not detrimentally impact on adjacent properties.<br><br>Town of Batavia Town Code, Chapter 112: Flood Damage Prevention<br>Section 112-14: General standards.<br>A2. Public utilities and facilities, such as sewer, gas, electrical and water systems, shall be located and constructed so as to minimize |                    |

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|                                       |   | <p>flood damage.</p> <p>Town of Batavia Land Subdivision Regulations, Article V – Improvements<br/> B. Storm drains, culverts, catch basins and other drainage structures shall be installed in accordance with the standards and specifications on file in the Town Clerk's office and in accord with the final map approved by the Planning Board. All pipe shall comply with the requirements of the current New York State Highway Department specifications governing construction of these facilities. The location, length, depth, size, grade, and type of pipe shall be designated in the plans. If unusual conditions are discovered at the time of construction which are not provided for on the plans, the Town Engineer shall determine the type and extent of construction required to overcome such conditions.</p>   |  |
| Sediment and Erosion Control Measures | Y | <p>Town of Batavia Zoning Ordinance, Article IV – Zoning District Regulations<br/> Section 409: Floodplain Overlay Zone (FPO):</p> <p>3. Additional requirements for the Wellhead Protection Overlay Zone.<br/> a. Runoff/drainage.<br/> 8. Practices for controlling erosion and sedimentation shall be selected from the New York Guidelines for Urban Erosion and Sediment Control and the DEC manual "Reducing the Impacts of Stormwater Runoff from New Development."<br/> 9. The applicant shall prepare a stormwater management and erosion control plan using the outline presented in Chapter 4 of the DEC manual "Reducing the Impacts of Stormwater Runoff from New Development."</p> <p>Article V – Supplementary Regulations<br/> Section 507: Commercial excavation:<br/> B. Minor excavation<br/> 8. Topsoil. All topsoil and subsoil shall be stripped from the excavation areas and stockpiled and seeded for use in accordance with the reclamation plan. The location of topsoil to be stored shall be identified. Such stockpiles shall be treated to minimize the effects of erosion by wind or water upon public roads, streams, or adjacent property. 9. Erosion. The applicant's plan shall also include a provision for the control of soil erosion.<br/> Section 515: Ponds. The purpose of this section is to provide for the construction of ponds that are adequately designed and located so as to not pose adverse impacts</p> |  |

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|  |   |  | upon surrounding land uses. Farm water supply, conservancy, stormwater/erosion control and fire protection or other ponds may be located within the AG, AG-R, C, I and IP Districts upon issuance of a special use permit provided the following criteria are met...   |  |
| Regulations for Prevention of Water Supply Contamination                     | Y |  | <p>Town of Batavia Zoning Ordinance, Article IV – Zoning District Regulations Section 410: Wellhead Protection Overlay Zone (WPO).</p> <p>Town of Batavia Subdivision Regulations, Article V – Improvements Section 1: General Improvements:<br/>K. Sanitary Sewers and treatment disposal facilities shall be required.<br/>F. Public water main connections.</p> <p>Town of Batavia Town Code, Chapter 112: Flood Damage Prevention Section 112-15: Standards for all structures.:<br/>C2. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.</p> <p>Town of Batavia Ordinance for the Control of Backflow and Cross-Connections</p>   |  |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris | Y |  | <p>Town of Batavia Zoning Ordinance, Article III – General Regulations Section 302: Supplementary yard regulations, Stripping and Excavations:<br/>D. Visibility at intersections. On a corner lot in any district, no fence, wall, hedge, or other structure or planting more than three feet in height shall be erected, placed or maintained within the triangular area formed by the intersecting road lines and a straight line joining said road lines at points which are 40 feet distant from the point of intersection, measured along said road lines. This subsection shall not apply to existing trees, provided that no branches are closer than six feet to the ground.</p> <p>Article V – Supplementary Regulations Section 507: Commercial excavation:<br/>B. Minor excavation<br/>6. Roadside landscape. Existing trees and ground cover along public road frontage shall be preserved, maintained and supplemented in the entire area of the roadside setback for the purpose of screening and noise reduction. If, however, the existing topography and natural vegetation does not lend itself to an economically feasible supplement plan, the operation can, if properly landscaped with</p> |  |

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|   |   | <p>grass, trees and shrubs, grade back the overburden around the perimeter of the excavation site to create a berm for the purpose of screening and noise reduction. No berm shall be constructed within 25 feet of any right-of-way line or property boundary lines.</p> <p>Town of Batavia Land Subdivision Regulations, Article V – Improvements</p> <p>H. Street trees shall be planted in every subdivision at intervals from 40 feet to 60 feet along both sides of the street. Existing trees may be taken into consideration when determining the above. Trees shall be at least three feet from any sidewalk and located on the building side of the walk rather than the street side. Where dwelling structures are oriented with their rear on the street, street trees shall be at least six feet from the curbline. Trees should also be at least 10 feet from any line which is directly under utility wires. The average trunk diameter shall be at least two inches, and an average height of six feet above finished grade level is required. Such trees shall be of a species and at locations approved by the Planning Board. No tree shall be planted within 25 feet from an existing or proposed streetlight or street intersection.</p> <p>I. Shade trees, other than within the right-of-way, may be required when, taking into consideration the existing trees on the lots, the Planning Board shall deem it necessary. Such trees shall be in conformance with the standards of size, kind, and locational limitations prescribed for trees along the street line.</p> |                              |
| Regulations for De-Icing Roads, Plowing | Y | <p>Town of Batavia Zoning Ordinance, Article IV – Zoning District Regulations</p> <p>Section 410: Wellhead Protection Overlay Zone (WPO):</p> <p>F. Use regulations for the Wellhead Protection Overlay Zone.</p> <p>c. Outside storage of road salt or other de-icing chemicals;</p> <p>d. Disposal of snow that contains de-icing materials and that has been transported from areas outside the Wellhead Protection Overlay District;</p>   |                              |
| Identification of Wetland Areas         | Y | <p>Town of Batavia Town Code, Chapter 116: Freshwater Wetlands</p> <p>Town of Batavia Comprehensive Master Plan, Section 2: Existing Conditions:</p> <p>2.4 Environmental Context</p> <p>2.4.3 Hydrology</p> <p>Section 4: Environmental Framework:</p>  | Adopted 1976/with Amendments |

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|   |   |   | 4.2 Town of Batavia: Environmental Context<br>Section 10: References:<br>List of Figures: 9. FEMA Floodplains and NYSDEC Wetlands  |                              |
| Watershed Management Plan   |   | N |  |                              |
| Section on Location of Major Pipelines  | Y |   | <p>Town of Batavia Zoning Ordinance, Article VII – Administration and Enforcement<br/>708. Planning Board:<br/>C. Site Plan Review.<br/>f. Preliminary engineering plans, street improvements, storm drainage, water supply and sanitary sewer facilities and fire protection.<br/>j. Description of proposed measures to control runoff and drainage from the site and, when required by the New York State Department of Environmental Conservation and/or the SEQR process, a stormwater management and erosion control plan.</p> <p>Town of Batavia Land Subdivision Regulations, Article VI – Plats and Subdivision Plats<br/>Section 1: Preliminary plat:<br/>K. Proposed provision of water supply, fire protection, disposal of sanitary waste, stormwater drainage, street trees, streetlighting fixtures, street signs, and sidewalks, data on which must be available for consideration at this stage.</p> <p>Town of Batavia Comprehensive Master Plan, Section 10: References<br/>List of Figures: 5. Town Water and Sanitary Sewer Map</p> |                              |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | Town of Batavia Town Code, Chapter 150: Mobile Home Parks<br>Section 150-7: Design standards:<br>E2. Underground utilities. Electrical systems, gas piping systems, cable and telephone wires shall be maintained in compliance with the New York State Uniform Code.  | Adopted 1988/with Amendments |
| Natural Resource Inventory  | Y |   | <p>Town of Batavia Land Subdivision Regulations, Article III – Development Standards for Subdivisions<br/>Section 204-13: Design standards:<br/>E. Preservation of natural features.</p> <p>Town of Batavia Comprehensive Master Plan, Section 2: Existing Conditions<br/>2.4 Environmental Context:<br/>Section 4: Environmental Framework</p>  |                              |
| Regulations for Unsafe/Defective Structures   | Y |   | Town of Batavia Town Code, Chapter 93: Buildings, Unsafe   | Adopted 2000                 |

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| Environmental Overlays in Local Development Review Procedures              | Y |   | Town of Batavia Zoning Ordinance, Article IV – Zoning District Regulations<br>Section 401: Agricultural District (AG).<br>Section 402: Agricultural-Residential District (AG-R).<br>Section 409: Floodplain Overlay Zone (FPO).<br>Section 410: Wellhead Protection Overlay Zone (WPO).<br><br>Town of Batavia Comprehensive Master Plan, Section 10: References<br>List of Figures: 6. Genesee County Agricultural Districts |                       |
| Riparian protections or setbacks   |   | N |   |                       |
| Timber harvesting regulations  |   | N |   |                       |
| Steep slope regulations or consideration within zoning or site plan review |   | N |   |                       |
| Incompatible uses  | Y |   | Town of Batavia Zoning Ordinance, Article III – General Regulations<br>Section 304: Nonconforming uses, buildings, structures and lots.<br>Section 305: Uses not permitted.   |                       |
| Participation in the Federal Community Rating System                       |   | N |   |                       |
| Participation in National Flood Insurance Program                          | Y |   |   | Most Recent FIRM 1985 |

| <b>Bergen, Town</b>                   |            |           |  | <b>Local Law Assessment</b> |
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| <b>Does the municipality have:</b>    | <b>Yes</b> | <b>No</b> | <b>Reference:</b>  | <b>Comments:</b>            |
| Comprehensive/Master Plan             | Y          |           | Town of Bergen and Village of Bergen Comprehensive Plan 2015   | Adopted 1997                |
| Zoning Ordinance                      | Y          |           | Town of Bergen Zoning Law  | Adopted 1983/ Revised 1999  |
| Subdivision Ordinance                 | Y          |           | Town of Bergen Land Subdivision Regulations  | Approved 1969/ Revised 1991 |
| Site Plan Review Process              | Y          |           | Town of Bergen Zoning Law, Article V – Supplemental Regulations<br>Section 501: Site Plan Review and Approval<br>Section 502: Submission of Site Plan and Supporting Data<br>Section 503: Site Plan Review |                             |
| Code or Zoning Enforcement Officer    | Y          |           | Town of Bergen Zoning Law, Article II – Enforcement, Administration and Amendments<br>Section 201: Zoning Enforcement Officer  |                             |
| Flood Mitigation Plan                 |            | N         |  |                             |
| Building Codes Pertaining to Flooding |            | N         |  |                             |
| Flood Officer (if NFIP community)     |            | N         |  |                             |

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| Provision for Repetitive Flooding Property                                   | Y | <p>Town of Bergen Zoning Law, Article IV – Zone District Regulations, Zoning Map Section 401: General Regulations:<br/>A.5. Lots Under Water or Subject to Flooding</p> <p>Town of Bergen Land Subdivision Regulations, Article IV – General Requirements and Design Standards<br/>6. Drainage Improvements:<br/>D. Land Subject to Flooding</p>   |                          |
| Drainage Regulations Related to Flooding/Storm Water                         | Y | <p>Town of Bergen Zoning Law, Article IV – Zone District Regulations, Zoning Map Section 413: Mobile Home Overlay Zone – MHO:<br/>3. Site Layout and Design Requirements<br/>c. Storm Water Drainage</p> <p>Town of Bergen Land Subdivision Regulations, Article IV – General Requirements and Design Standards<br/>Section 1: General Conditions:<br/>A. Character of Land: Land to be subdivided shall be of such character that it can be used safely for intended purposes without danger to health or peril from fire, flood, or other menace.<br/>Section 6: Drainage Improvements</p>   |                          |
| Sediment and Erosion Control Measures  | Y | <p>Town of Bergen Zoning Law, Article V – Supplemental Regulations<br/>Section 513: Extraction of Natural Products, Soil, Sand, Gravel, or Stone</p> <p>Town of Bergen Stormwater Management and Erosion Control Law</p>   | Effective August 1, 1992 |
| Regulations for Prevention of Water Supply Contamination                     | Y | <p>Town of Bergen Land Subdivision Regulations, Article IV – General Requirements and Design Standards<br/>Section 8A: Utility Requirements: Water supply, sewerage, drainage.</p>   |                          |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris | Y | <p>Town of Bergen Zoning Law, Article IV – Zone District Regulations, Zoning Map Section 401: General Regulations:<br/>B. Yards, Yard Requirements, Building Projections, Setbacks, Other Features<br/>4. Visibility at Intersections</p> <p>Town of Bergen Stormwater Management and Erosion Control Law, Section VIII – Content<br/>Permit Application Materials:<br/>Existing features map(s), at a scale no smaller than one inch equals one hundred feet, indicating:<br/>6. Major wooded areas and tree clusters within a distance of five hundred (500) feet of the parcels on which site preparation activities are proposed to be undertaken;</p> |                          |

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| Regulations for De-Icing Roads, Plowing   |   | N |  |
| Identification of Wetland Areas   | Y |   | Town of Bergen and Village of Bergen Comprehensive Plan 2015<br>D. Freshwater Wetlands and Floodplains:<br>1. Wetlands<br>2. Areas of Special Flood Hazard<br>Figure 2-5: Wetlands and Floodplains   |
| Watershed Management Plan   |   | N |  |
| Section on Location of Major Pipelines  | Y |   | Town of Bergen and Village of Bergen Comprehensive Plan 2015<br>C. Utilities:<br>1. Electric Service<br>2. Public Water Supply<br>Figure 2-4A: Utilities<br>Figure 2-4B: Utilities<br>3. Public Sewer Service<br>4. Stormwater Facilities<br>5. Gas Service<br><br>Town of Bergen Land Subdivision Regulations, Article V – Documents to be Submitted<br>Section 1: Sketch Plan:<br>A5. All the utilities available, and all streets which are either proposed, mapped or built.   |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | Town of Bergen Zoning Law, Article IV – Zone District Regulations, Zoning Map Section 413: Mobile Home Overlay Zone – MHO:<br>C. Standards and Requirements for the construction of Mobile Home Parks<br>4-1. All utilities shall be underground.<br><br>Town of Bergen Land Subdivision Regulations, Article IV – General Requirements and Design Standards<br>Section 8: Additional Requirements:<br>A. Utility Requirements<br>Electric, Gas, Telephone: ...Electric and telephone installation for new subdivision and developments shall be underground, unless otherwise permitted by the Planning Board.<br>B. Special Requirements for Mobile Home Park, Multiple Family Dwellings, Commercial, and Industrial Development:<br>1. Mobile Home Parks<br>Electric and telephone lines shall be underground. All underground utilities shall be placed impermanent easements.<br>2. Multiple Family Residential<br>Electric and telephone lines shall be underground. All underground utilities shall be placed impermanent easements.<br>3. Commercial Developments<br>Electric and telephone lines shall be |

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|  |   |   | underground. All underground utilities shall be placed impermanent easements.<br>4. Industrial Developments<br>Electric and telephone lines shall be underground. All underground utilities shall be placed impermanent easements.   |                        |
| Natural Resource Inventory   | Y |   | Town of Bergen and Village of Bergen Comprehensive Plan 2015, Chapter 2:<br>Existing Conditions – Inventory<br>II. Community Features and Natural Conditions:<br>A. Existing Land Use Patterns<br>Figure 2-2: Existing Land Use<br>Chapter 5: Goals and Policy Statements<br>III. Comprehensive Plan Goals, Objectives and Policies:<br>A. Environmental Features and Open Space<br><br>Town of Bergen Land Subdivision Regulations, Article IV – General Requirements and Design Standards<br>7. Parks, Open Spaces, and Natural Features |                        |
| Regulations for Unsafe/Defective Structures                                |   | N |  |                        |
| Environmental Overlays in Local Development Review Procedures              | Y |   | Town of Bergen Zoning Law, Article IV – Zone Districts Regulations, Zoning Map<br>Section 405: Residential-Agricultural RA-40<br>Section 411: Land Conservation – LC<br>Section 414: Flood Plain Overlay Zone - FPO  |                        |
| Riparian protections or setbacks   | Y |   | Town of Bergen Stormwater Management and Erosion Control Law,<br>Section VII – Applicability<br>C. Site preparation within 100 feet of all streams, water courses or other water bodies.   |                        |
| Timber harvesting regulations  |   | N |  |                        |
| Steep slope regulations or consideration within zoning or site plan review | Y |   | Town of Bergen and Village of Bergen Comprehensive Plan 2015, Chapter 4:<br>development Opportunities and Constraints<br>VI. Town and Village Constraints<br>Steep Slopes:<br>Figure 4-1: Factors Affecting Development  |                        |
| Incompatible uses  | Y |   | Town of Bergen Zoning Law, Article IV – Zone District Regulations, Zoning Map<br>Section 401: General Regulations:<br>D. Nonconforming Uses, Structures, and Lots  |                        |
| Participation in the Federal Community Rating System                       |   | N |  |                        |
| Participation in National Flood Insurance Program                          | Y |   |  | Community No. 361137 B |

| Bergen, Village       |     |    | Local Law Assessment |           |
|-----------------------|-----|----|----------------------|-----------|
| Does the municipality | Yes | No | Reference:           | Comments: |

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| <b>have:</b>   |   |  |  |   |
| Comprehensive/Master Plan                            | Y |  | Town of Bergen and Village of Bergen Comprehensive Plan 2015   | Adopted 1997  |
| Zoning Ordinance                                     | Y |  | Village of Bergen Zoning Law   | Adopted 1990/ Amended through 2000                                    |
| Subdivision Ordinance                                | Y |  | Village of Bergen Land Development Law and Public Works Specifications   | Adopted August 2003   |
| Site Plan Review Process                             | Y |  | Village of Bergen Zoning Law, Article II – Administration<br>Section 208: Planning Board:<br>C. Site Plan Review   |   |
| Code or Zoning Enforcement Officer                   | Y |  | Village of Bergen Zoning Law, Article II – Administration<br>Section 202: Enforcement  | Zoning Enforcement Officer  |
| Flood Mitigation Plan                                | Y |  | Village of Bergen, Genesee County, New York Local Law No. 1 of the Year 1982: To Prevent Flood Damage  |   |
| Building Codes Pertaining to Flooding                | Y |  | Village of Bergen, Genesee County, New York Local Law No. 1 of the Year 1982: To Prevent Flood Damage<br>Section 5.2-1: Residential Construction: New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above the base flood elevation.<br>Section 5.2-2: Non-Residential Construction: New construction and substantial improvement of any commercial, industrial or other non-residential structure shall either have the lowest floor, including the basement, elevated to or above the base flood elevation; or [see document for other conditions]. |   |
| Flood Officer (if NFIP community)                    | Y |  |  | Zoning Enforcement Officer enforces Flood Damage Prevention Local Law |
| Provision for Repetitive Flooding Property           | Y |  | Village of Bergen Land Development Law, Article IV – General Requirements and Design Standards<br>Section 7: Storm Water Drainage, Erosion and Sediment Control Measures:<br>D. Land Subject to Flooding<br><br>Village of Bergen, Genesee County, New York Local Law No. 1 of the Year 1982: To Prevent Flood Damage, Section 1.2:<br>Statement of Purpose: It is the purpose of the local law ... to minimize public and private losses due to flood conditions in specific areas by provisions designed.  |   |
| Drainage Regulations Related to Flooding/Storm Water | Y |  | Village of Bergen Land Development Law, Article IV – Design Standards<br>Section 1: General Conditions:<br>A. Character of Land: Land to be subdivided shall be of such character that it can be used safely for intended purposes without danger to health or peril from fire, flood, or other menace.  |   |

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|  |   |   | <p>Section 7: Storm Water Drainage, Erosion and Sediment Control Measures:<br/> A. Removal of Spring and Surface Water<br/> B. Drainage Facility to Accommodate Potential Development Upstream<br/> C. Responsibility for Drainage Downstream<br/> D. Land Subject to Flooding</p> <p>Village of Bergen Public Works Specifications, Article VIII – Design Criteria<br/> Section 2: Storm Drainage Systems</p>  |  |
| Sediment and Erosion Control Measures  | Y |   | <p>Village of Bergen Zoning Law, Article IV – Supplementary Regulations<br/> Section 415: Mobile Home Parks:<br/> E9: Required Improvements: Stormwater drainage.</p> <p>Village of Bergen Land Development Law, Article IV – General Requirements and Design Standards<br/> Section 7: Storm Water Drainage, Erosion and Sediment Control Measures:<br/> E. Erosion and Sediment Control</p>   |  |
| Regulations for Prevention of Water Supply Contamination                     | Y |   | <p>Village of Bergen, Genesee County, New York Local Law No. 1 of 1982: To Prevent Flood Damage, Section 5.1-3 Utilities:<br/> (1) All new and replacement water systems shall be design to minimize or eliminate infiltration of flood waters into the system.<br/> (2) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the systems into flood waters.</p> <p>Village of Bergen Land Development Law, Article IV – General Requirements and Design Standards<br/> Section 6: Water Supply and Sanitary Sewer</p> <p>Village of Bergen Public Works Specifications, Article VIII – Design Criteria<br/> Section 3. Water Mains</p> |  |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris | Y |   | <p>Village of Bergen Zoning Law, Article III – Zoning District Regulations – Zoning Map<br/> Section 301: General Regulations:<br/> A. Buildings, Uses and Lots<br/> 10. Supplementary Yard Regulations<br/> c. Visibility at Intersections</p>   |  |
| Regulations for De-Icing Roads, Plowing                                      |   | N |   |  |
| Identification of Wetland Areas  | Y |   | <p>Town of Bergen and Village of Bergen Comprehensive Plan 2015<br/> D. Freshwater Wetlands and Floodplains:<br/> 1. Wetlands<br/> 2. Areas of Special Flood Hazard<br/> Figure 2-5: Wetlands and Floodplains</p>   |  |
| Watershed Management   |   | N |   |  |

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| Plan  |   |   |   |
| Section on Location of Major Pipelines  | Y |   | <p>Town of Bergen and Village of Bergen Comprehensive Plan 2015</p> <p>C. Utilities:</p> <ol style="list-style-type: none"> <li>1. Electric Service</li> <li>2. Public Water Supply</li> </ol> <p>Figure 2-4A: Utilities<br/>Figure 2-4B: Utilities</p> <ol style="list-style-type: none"> <li>3. Public Sewer Service</li> <li>4. Stormwater Facilities</li> <li>5. Gas Service</li> </ol> <p>Village of Bergen Zoning Law, Article II – Administration</p> <p>Section 208: Planning Board:</p> <p>C. Site Plan Review</p> <ol style="list-style-type: none"> <li>2. Submission of Site Plan and Data</li> <li>f. Preliminary engineering plans, street improvements, storm drainage, water supply and sanitary sewer facilities and fire protection.</li> </ol> |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | <p>Village of Bergen Zoning Law, Article IV – Supplementary Regulations</p> <p>Section 415: Mobile Home Parks:</p> <p>E2. Underground Utilities</p> <p>Village of Bergen Public Works Specifications, Article VIII – Design Criteria</p> <p>Section 4: Electrical Distribution System: Electrical distribution within all major subdivisions shall be underground.</p>  |
| Natural Resource Inventory  | Y |   | <p>Village of Bergen Land Development Law, Article IV – General Requirements and Design Standards</p> <p>Section 8: Parks, Open Spaces and Natural Features</p>   |
| Regulations for Unsafe/Defective Structures   |   | N |   |
| Environmental Overlays in Local Development Review Procedures                         | Y |   | <p>Town of Bergen and Village of Bergen Comprehensive Plan 2015, Chapter 2: Existing Conditions – Inventory</p> <p>II. Community Features and Natural Conditions:</p> <ol style="list-style-type: none"> <li>A. Existing Land Use Patterns</li> </ol> <p>Figure 2-2: Existing Land Use</p> <p>Chapter 5: Goals and Policy Statements</p> <p>III. Comprehensive Plan Goals, Objectives and Policies:</p> <ol style="list-style-type: none"> <li>A. Environmental Features and Open Space</li> </ol> <p>Village of Bergen Zoning Law, Article III – Zoning District Regulations – Zoning Map</p> <p>Section 314: Flood Plain Overlay Zone – FPO</p>   |
| Riparian protections or setbacks  |   | N |   |
| Timber harvesting   |   | N |   |

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| regulations  |   |   |  |                        |
| Steep slope regulations or consideration within zoning or site plan review | Y |   | Town of Bergen and Village of Bergen Comprehensive Plan 2015, Chapter 4: development Opportunities and Constraints VI. Town and Village Constraints Steep Slopes:<br>Figure 4-1: Factors Affecting Development |                        |
| Incompatible uses  | Y |   | Village of Bergen Zoning Law, Article III – Zoning District Regulations – Zoning Map C. Nonconforming Uses, Structures and Lots  |                        |
| Participation in the Federal Community Rating System                       |   | N |  |                        |
| Participation in National Flood Insurance Program                          | Y |   |  | Community No. 361497 A |

| <b>Bethany, Town</b>                       |            |           |  | <b>Local Law Assessment</b>          |
|--|------------|-----------|--|--------------------------------------|
| <b>Does the municipality have:</b>         | <b>Yes</b> | <b>No</b> | <b>Reference:</b>  | <b>Comments:</b>                     |
| Comprehensive/Master Plan                  | Y          |           | Town of Bethany Comprehensive Plan   | Adopted 1996                         |
| Zoning Ordinance                           | Y          |           | Town of Bethany Zoning Law   | Adopted 1985/ Amended through 2004   |
| Subdivision Ordinance                      | Y          |           | Town of Bethany Land Separation and Subdivision Regulations<br><br>Town of Bethany Flood Damage Prevention Local Law<br>Section 5.0: Provisions for Flood Hazard Reduction:<br>5.1-4 Subdivision Proposals | Amended through 2000<br>Adopted 1989 |
| Site Plan Review Process                   | Y          |           | Town of Bethany Zoning Law, Article II – Enforcement, Administration and Amendments<br>Section 208: Planning Board:<br>C. Site Plan Review   |                                      |
| Code or Zoning Enforcement Officer         | Y          |           | Town of Bethany Zoning Law, Article II – Enforcement, Administration and Amendments<br>Section 201: Zoning Enforcement Officer   |                                      |
| Flood Mitigation Plan                      | Y          |           | Town of Bethany Comprehensive Emergency Management Plan<br><br>Town of Bethany Flood Damage Prevention Local Law   | Adopted 2002<br><br>Adopted 1989     |
| Building Codes Pertaining to Flooding      | Y          |           | Town of Bethany Flood Damage Prevention Local Law<br>Section 5.0: Provisions for Flood Hazard Reduction:<br>5.1 General Standards<br>5.2 Specific Standards  |                                      |
| Flood Officer (if NFIP community)          | Y          |           | Town of Bethany Flood Damage Prevention Local Law<br>Section 4.0: Administration:<br>4.1 Designation of the Local Administrator  | Zoning Enforcement Officer           |
| Provision for Repetitive Flooding Property | Y          |           | Town of Bethany Zoning Law, Article III – Zoning District Regulations, Zoning Maps<br>Section 301: General Regulations:  |                                      |

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|  |   | <p>A. Buildings, Uses and Lots<br/>5. Lots Subject to Flooding</p> <p>Town of Bethany Land Separation and Subdivision Regulations, Article IV – Design Standards<br/>Section 2G-2: Floodplains: Land subject to flooding, and land deemed by the Planning Board to be otherwise uninhabitable, shall not be platted for residential occupancy or for such other uses so as to increase danger to health, life or property, or aggravate the flood hazard.</p>   |              |
| Drainage Regulations Related to Flooding/Storm Water                         | Y | <p>Town of Bethany Zoning Law, Article IV – Mobile Homes and Mobile Home Parks<br/>Section 402: Mobile Home Park:<br/>A. Standards and Requirements for the Construction of Mobile Home Parks<br/>3. Site Layout and Design Requirements<br/>c. Storm Water Drainage</p> <p>Town of Bethany Land Separation and Subdivision Regulations, Article IV- Design Standards<br/>D. Storm Water Drainage, Erosion and Sediment Control Measures and Easements</p> <p>Article V – Improvements<br/>Section 1: General Improvements:<br/>B. Storm Drains</p> |              |
| Sediment and Erosion Control Measures  | Y | <p>Town of Bethany Land Separation and Subdivision Regulations, Article V- Design Standards<br/>D. Storm Water Drainage, Erosion and Sediment Control Measures and Easements</p> <p>Town of Bethany Stormwater Management and Erosion Control Law</p>   | Adopted 1994 |
| Regulations for Prevention of Water Supply Contamination                     | Y | <p>Town of Bethany Land Separation and Subdivision Regulations, Article V – Improvements<br/>Section 1: General Improvements:<br/>E. Wastewater Treatment Systems<br/>F. Water Supply Systems</p> <p>Town of Bethany Flood Damage Prevention Local Law<br/>Section 5.0: Provisions for Flood Hazard Reduction:<br/>5.1-3 Utilities<br/>2. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters in to the system.</p>  |              |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris | Y | <p>Town of Bethany Zoning Law, Article III – Zoning District Regulations, Zoning Maps<br/>Section 301: General Regulations:<br/>B. Supplementary Yard Regulations,</p>  |              |

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|   |   |   | Stripping, Mining and Excavations<br>4. Visibility at Intersections<br><br>Town of Bethany Land Separation and Subdivision Regulations, Article V- Design Standards<br>E. Landscaping and Ground Cover   |  |
| Regulations for De-Icing Roads, Plowing   |   | N |  |  |
| Identification of Wetland Areas   | Y |   | Town of Bethany Comprehensive Plan:<br>Existing Conditions: Wetlands   |  |
| Watershed Management Plan   |   | N |  |  |
| Section on Location of Major Pipelines  | Y |   | Town of Bethany Comprehensive Plan:<br>Existing Conditions: Public Facilities-Utilities<br><br>Town of Bethany Zoning Law, Article II – Enforcement, Administration and Amendments<br>Section 208: Planning Board:<br>C. Site Plan Review<br>2. Submission of Site Plan and Data<br>f. Preliminary engineering plans, street improvements, storm drainage, water supply and sanitary sewer facilities and fire protection.<br><br>Town of Bethany Land Separation and Subdivision Regulations, Article VI – Documents to be Submitted<br>Section 2: Preliminary Plat and Accompanying Data:<br>9. The approximate location and size of any proposed water lines, valves, hydrants, and sewer lines, and fire alarm boxes. Connection to existing lines or alternate means of water supply or sewage disposal and treatment as provided in the Public Health Law or Environmental Conservation Law. Profiles of all proposed water and sewer lines. |  |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | Town of Bethany Zoning Law, Article III – Zoning District Regulations, Zoning Maps<br><br>Town of Bethany Zoning Law, Article IV – Mobile Homes and Mobile Home Parks<br>Section 402: Mobile Home Park:<br>A. Standards and Requirements for the Construction of Mobile Home Parks<br>6. Electrical Systems<br>a. Except as otherwise permitted or required by this standard, all electrical installations in mobile home parks shall be underground, residential distribution designed and constructed in accordance with local electric utility and with the National Electric Code.   |  |
| Natural Resource Inventory  | Y |   | Town of Bethany Comprehensive Plan<br>Existing Conditions: Natural Features  |  |

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| Regulations for Unsafe/Defective Structures                                |   | N |   |                 |
| Environmental Overlays in Local Development Review Procedures              | Y |   | Town of Bethany Zoning Law, Article III – Zoning District Regulations, Zoning Maps Section 306: Agricultural-Residential District A-R                           |                 |
| Riparian protections or setbacks   |   | N |   |                 |
| Timber harvesting regulations  |   | N |   |                 |
| Steep slope regulations or consideration within zoning or site plan review |   | N |   |                 |
| Incompatible uses  | Y |   | Town of Bethany Zoning Law, Article III – Zoning District Regulations, Zoning Maps Section 301: General Regulations: D. Nonconforming Uses, Structures and Lots |                 |
| Participation in the Federal Community Rating System                       |   | N |   |                 |
| Participation in National Flood Insurance Program                          | Y |   |   | FIRM dated 1984 |

| <b>Byron, Town</b>                    |            |           | <b>Local Law Assessment</b>  |                            |
|---------------------------------------|------------|-----------|--|----------------------------|
| <b>Does the municipality have:</b>    | <b>Yes</b> | <b>No</b> | <b>Reference:</b>  | <b>Comments:</b>           |
| Comprehensive/Master Plan             | Y          |           | Comprehensive Plan, Town of Byron  | Adopted 1993               |
| Zoning Ordinance                      | Y          |           | Official Zoning Ordinance, Town of Byron   | Adopted April 1997         |
| Subdivision Ordinance                 | Y          |           | Land Subdivision Regulations, Town of Byron  | Adopted June 1991          |
| Site Plan Review Process              | Y          |           | Land Subdivision Regulations, Town of Byron, Article III – Procedure for Filing Subdivision Application Section 1: Sketch Plan   |                            |
| Code or Zoning Enforcement Officer    | Y          |           | Official Zoning Ordinance, Town of Byron, Article III – Administration and Enforcement Sec. 300: Zoning Officer, Sec. 301: Duties of the Zoning Officer                  | Zoning Enforcement Officer |
| Flood Mitigation Plan                 |            | N         |  |                            |
| Building Codes Pertaining to Flooding | Y          |           | Official Zoning Ordinance, Town of Byron, Article IX – Zone District Regulations Sec.905: General Standards, Construction Standards, Utilities in the flood hazard zone. |                            |
| Flood Officer (if NFIP community)     | Y          |           | Official Zoning Ordinance, Town of Byron, Article IX – Zone District Regulations Sec.905-H: Duties and Responsibilities of the Zoning Officer                            | Zoning Enforcement Officer |

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| Provision for Repetitive Flooding Property           | Y | <p>Land Subdivision Regulations, Town of Byron, Article IV – Design Standards<br/>Section 1: General Conditions:<br/>A. Character of Land: Land to be subdivided shall be of such character that it can be used safely for intended purposes without danger to health or peril from fire, flood, or other menace.<br/>Section 2: Design Standards of Improvements:<br/>G. Floodplains</p> <p>Official Zoning Ordinance, Town of Byron, Article IX – Zone District Regulations<br/>Sec.905-C: Establishment of Areas of Special Flood Hazard.<br/>Sec.905-K: Regulations for Floodways.</p>   |  |
| Drainage Regulations Related to Flooding/Storm Water | Y | <p>Official Zoning Ordinance, Town of Byron, Article IX – Zone District Regulations<br/>Sec.905-I-3: Sanitary sewage system and on-site waste disposal system to be designed to avoid impairment during flooding.<br/>Sec. 905-J3-b: For new mobile home parks and for the expansion of existing mobile home parks it is required that: ii: Adequate surface drainage... [is] required.</p> <p>Article XI – Regulations Governing Special Permit Uses<br/>Sec. 1104-O: Adequate drainage to be provided for stormwater runoff.<br/>Sec. 1115: Mobile Home Parks:<br/>B-4f: An adequate storm drainage system shall be installed.</p> <p>Land Subdivision Regulations, Town of Byron, Article IV – Design Standards<br/>Section 2: Design Standards of Improvements:<br/>D. Storm water drainage, erosion and sediment control measures and easements.</p> <p>Article V – Improvements<br/>Section 1: General Improvements:<br/>B. Storm Drains</p> |  |
| Sediment and Erosion Control Measures                | Y | <p>Official Zoning Ordinance, Town of Byron, Article XI – Regulations Governing Special Permit Uses<br/>Sec. 1104-P: Applicant to include plan for soil erosion control for excavation permits.</p> <p>Land Subdivision Regulations, Town of Byron, Article IV – Design Standards<br/>Section 2: Design Standards of Improvements:<br/>D. Storm water drainage, erosion and</p>  |  |

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|   |   |   | sediment control measures and easements.   |  |
| Regulations for Prevention of Water Supply Contamination                              | Y |   | <p>Official Zoning Ordinance, Town of Byron, Article IX – Zone District Regulations<br/>Sec.905-I-3: Water supply system to be designed to prevent contamination from flooding.</p> <p>Article X – Supplementary Regulations<br/>Sec. 1004: Private Swimming Pools:<br/>C. Drainage: Permits for pools must show how drainage will not enter water supply.</p> <p>Land Subdivision Regulations, Town of Byron, Article V – Improvements<br/>Section 1: General Improvements:<br/>E. Wastewater Treatment Systems<br/>F. Water Supply Systems</p> |  |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris          | Y |   | <p>Official Zoning Ordinance, Town of Byron, Article XI - Regulations Governing Special Use Permits<br/>Sec.1104-K: Existing trees to be preserved; selected cutting of trees and tress planting.</p> <p>Article V – General Provisions Applicable to All Districts<br/>Section 502-D: Visibility at Intersections</p> <p>Land Subdivision Regulations, Town of Byron, Article IV – Design Standards<br/>Section 2: Design Standards of Improvements:<br/>E. Landscaping and ground cover.</p>   |  |
| Regulations for De-Icing Roads, Plowing   |   | N |  |  |
| Identification of Wetland Areas   |   | N |  |  |
| Watershed Management Plan   |   | N |  |  |
| Section on Location of Major Pipelines  |   | N |  |  |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | <p>Official Zoning Ordinance, Town of Byron, Article XI – Regulations Governing Special Permit Uses<br/>Sec.1112-Q: All utilities for multiple family developments to be installed underground.<br/>Sec. 1115: Mobile Homes:<br/>B-4g: All public utility, electric, gas, cable, television, and television lines shall be</p>   |  |

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|  |   |   | installed underground.<br><br>Land Subdivision Regulations, Town of Byron, Article IV – Design Standards<br>Section 2: Design Standards of Improvements:<br>C. Utility Easements: Also, all utilities which are primarily intended to provide service to the lots within the Subdivision shall be installed underground at a depth and at such locations as will minimize risk of interruption of service.                                      |  |
| Natural Resource Inventory   |   | N |   |  |
| Regulations for Unsafe/Defective Structures                                | Y |   | Official Zoning Ordinance, Town of Byron, Article V – General Provisions Applicable to All Districts<br>Sec.502-R,S: Any structure completely destroyed by fire requires new zoning permit for reconstruction.....Any structure partially destroyed by fire can be rebuilt according to the terms and conditions of this ordinance.<br><br>Article VII – Non-Conforming Uses<br>Sec.704-A, E: Regulations for restoration of damaged buildings. |  |
| Environmental Overlays in Local Development Review Procedures              | Y |   | Official Zoning Ordinance, Town of Byron, Article V – General Provisions Applicable to All Districts<br>Sec. 501: Preservation of Natural Features.<br><br>Article IX – Zone District Regulations<br>Sec. 905: F-P Flood Plain District<br>Sec. 906: L-C Land Conservation District   |  |
| Riparian protections or setbacks   |   | N |   |  |
| Timber harvesting regulations  |   | N |   |  |
| Steep slope regulations or consideration within zoning or site plan review |   | N |   |  |
| Incompatible uses  | Y |   | Official Zoning Ordinance, Town of Byron, Article V - General Provisions Applicable to all Districts<br>Sec. 502-G: Restricts incompatible uses such as storing odor or dust producing substance within 100 feet of the lot lines.<br><br>Article VII – Non-Conforming Uses   |  |
| Participation in the Federal Community Rating System                       |   | N |   |  |
| Participation in National Flood Insurance Program                          | Y |   |   | Most Recent FIRM 1988, FEMA Community Number 361139A |

| <b>Corfu, Village</b>                         |            |           | <b>Local Law Assessment</b>   |                              |
|---|------------|-----------|---|------------------------------|
| <b>Does the municipality have:</b>            | <b>Yes</b> | <b>No</b> | <b>Reference:</b>   | <b>Comments:</b>             |
| Comprehensive/Master Plan                     | Y          |           | Comprehensive Plan Town of Pembroke<br>Village of Corfu   | Adopted 1998                 |
| Zoning Ordinance                              | Y          |           | Village of Corfu Zoning Law   | Adopted 1995<br>Revised 2001 |
| Subdivision Ordinance                         | Y          |           | Village of Corfu Subdivision Regulations  | Adopted 1993, Revised 1991   |
| Site Plan Review Process                      | Y          |           | Village of Corfu Zoning Law, Article VII –<br>Administration and Enforcement<br>Sec.708-B-1: Site Plan Review   |                              |
| Code or Zoning<br>Enforcement Officer         | Y          |           | Village of Corfu Zoning Law, Article VII –<br>Administration and Enforcement<br>Sec.702: Zoning Enforcement Officer   | Zoning Enforcement Officer   |
| Flood Mitigation Plan                         |            | N         |   |                              |
| Building Codes Pertaining<br>to Flooding      | Y          |           | Village of Corfu Zoning Law, Article IV –<br>Zoning District Regulations<br>Sec. 407: Flood Plain Overlay Zone: Village<br>of Corfu’s Flood Damage Prevention Law.  |                              |
| Flood Officer (if NFIP<br>community)          | Y          |           | Village of Corfu Zoning Law, Article IV –<br>Zoning District Regulations<br>Sec.407: Flood Plain Overlay Zone: Zoning<br>Enforcement Officer or Designee of the<br>Village Board to administer the Flood<br>Damage Prevention Local Law.  |                              |
| Provision for Repetitive<br>Flooding Property | Y          |           | Village of Corfu Zoning Law, Article IV –<br>Zoning District Regulations<br>Sec.407: Flood Damage Overlay Zone: In<br>addition to the Zoning Law, areas within<br>Special Flood Hazard areas are regulated by<br>the Village of Corfu’s Flood Damage<br>Prevention Local Law.<br><br>Village of Corfu Subdivision Regulations,<br>Article IV – Design Standards<br>Sec. 1: General Conditions:<br>A. Character of Land: Land to be subdivided<br>shall be of such character that it can be used<br>safely for intended purposes without danger to<br>health or peril from fire, flood, or other<br>menace.<br>Sec. 7: Stormwater Drainage, Erosion and<br>Sediment Control Measures |                              |

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| Drainage Regulations Related to Flooding/Storm Water                         | Y |   | <p>Village of Corfu Zoning Law, Article VI – Mobile Homes and Mobile Home Parks<br/>Sec.601-A: Storm Water Drainage, Erosion and Sediment Control Measures for Mobile Home Park.</p> <p>Village of Corfu Subdivision Regulations, Article IV – Design Standards<br/>Sec. 3J: Watercourses: Storm water drain required if subdivision transversed by water.<br/>Sec. 7: Stormwater Drainage, Erosion and Sediment Control Measures.</p>   |  |
| Sediment and Erosion Control Measures  | Y |   | <p>Village of Corfu Zoning Law, Section III – General Regulations<br/>Sec. 309: Dwelling Front Yard Grade: Surface grade of front yards of dwellings measured at the midpoint of the front wall, shall be at least one foot above the elevation of the street center line, unless adequate site drainage is provided otherwise and approved by the appropriate authority.</p> <p>Article VI – Mobile Homes and Mobile Home Parks<br/>Sec.601-A: Storm Water Drainage, Erosion and Sediment Control Measures for Mobile Home Parks</p> <p>Village of Corfu Subdivision Regulations, Article IV – General Requirements and Design Standards<br/>Sec.7: Stormwater Drainage, Erosion, and Sediment Control Measures</p> |  |
| Regulations for Prevention of Water Supply Contamination                     |   | N | <p>Village of Corfu Subdivision Regulations, Article IV – General Requirements and Design Standards<br/>Sec. 6: Water Supply and Sanitary Sewer</p>  |  |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris | Y |   | <p>Village of Corfu Zoning Law, Article III – General Regulations<br/>Section 302: Supplementary Yard Regulations, Stripping, and Excavations:<br/>C. Visibility at Intersections</p> <p>Village of Corfu Subdivision Regulations, Article IV – General Requirements and Design Standards<br/>Sec. 8-F: Preservation of Natural Features: Contains regulations for tree cutting</p>  |  |
| Regulations for De-Icing Roads, Plowing                                      |   | N |  |  |
| Identification of Wetland Areas  |   | N |  |  |
| Watershed Management   |   | N |  |  |

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| Plan  |   |   |   |  |
| Section on Location of Major Pipelines  | Y |   | Village of Corfu Subdivision Regulations, Article V – Documents to be submitted<br>Section 3: Major Subdivision Preliminary Plat:<br>A6. Location of existing sewers, water mains, culverts, and drains on the property, with pipe size, grades and direction of flow.<br>9. The approximate location and size of all proposed water lines, valves, hydrants, and sewer lines, and fire alarm boxes.<br>10. Storm drainage plan indicating the approximate location and size of proposed lines and their profiles. Connection to existing lines or alternate means of disposal. |  |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | Village of Corfu Zoning Law, Article VI - Mobile Homes and Mobile Home Parks<br>Sec. 601-A-1-4-J: All utilities shall be underground.<br><br>Village of Corfu Subdivision Regulations, Article IV – General Requirements and Design Standards<br>Sec. 3-B: Underground Utilities for streets.   |  |
| Natural Resource Inventory  | Y |   | Village of Corfu Subdivision Regulations, Article IV – General Requirements and Design Standards<br>Sec. 8-F: Preservation of Natural Features  |  |
| Regulations for Unsafe/Defective Structures   |   | N |   |  |
| Environmental Overlays in Local Development Review Procedures                         | Y |   | Village of Corfu Zoning Law, Article IV – Zoning District Regulations<br>Sec. 405: Land Conservation L-C<br>Sec. 407: Flood Plain Overlay Zone  |  |
| Riparian protections or setbacks  |   | N |   |  |
| Timber harvesting regulations   |   | N |   |  |
| Steep slope regulations or consideration within zoning or site plan review            |   | N |   |  |
| Incompatible uses   | Y |   | Village of Corfu Zoning Law, Article III – General Regulations<br>Sec. 304 Nonconforming Uses, Structures, and Lots<br>Sec. 305 Uses Not Permitted  |  |
| Participation in the Federal Community Rating System                                  |   | N |   |  |
| Participation in National Flood Insurance Program                                     | Y |   |   | Most Recent FIRM 1985, FEMA Community Number 361498B |

| <b>Darien, Town</b>                |            |           | <b>Local Law Assessment</b> |                   |
|------------------------------------|------------|-----------|-----------------------------|-------------------|
| <b>Does the municipality have:</b> | <b>Yes</b> | <b>No</b> | <b>Reference:</b>           | <b>Comments:</b>  |
| Comprehensive/Master Plan          |            | N         |                             | Under Development |

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| Zoning Ordinance   | Y |   | Town of Darien Zoning Law  | Adopted 1986<br>Amended 2000 |
| Subdivision Ordinance  |   | N |  |                              |
| Site Plan Review Process   | Y |   | Town of Darien Zoning Law, Article IX –<br>Administration and Enforcement<br>Sec. 908-C: Site Plan Review  |                              |
| Code or Zoning<br>Enforcement Officer  | Y |   | Town of Darien Zoning Law, Article IX –<br>Administration and Enforcement<br>Sec.902: Zoning Enforcement Officer   | Zoning Enforcement Officer   |
| Flood Mitigation Plan  |   | N |  |                              |
| Building Codes Pertaining<br>to Flooding   |   | N |  |                              |
| Flood Officer (if NFIP<br>community)   |   | N |  |                              |
| Provision for Repetitive<br>Flooding Property  |   | N |  |                              |
| Drainage Regulations<br>Related to Flooding/Storm<br>Water                                     | Y |   | Town of Darien Zoning Law, Article VIII –<br>Supplementary Regulations<br>Sec. 803-5-J: Mobile Homes and Mobile<br>Home Parks to have adequate facility for<br>drainage of surface and subsurface water.   |                              |
| Sediment and Erosion<br>Control Measures   | Y |   | Town of Darien Zoning Law, Article XIII –<br>Supplementary Regulations<br>Sec. 806-B-9: Erosion: The applicant’s plan<br>shall also include a provision for soil erosion.  |                              |
| Regulations for Prevention<br>of Water Supply<br>Contamination                                 | Y |   | Town of Darien Zoning Law, Article VIII –<br>Supplementary Regulations.<br>Sec. 803 Mobile Homes and Mobile Home<br>Parks. B5-i: Storm Water Drainage.<br>Sec. 806 Commercial Excavation. B4:<br>Drainage: All surface drainage and any waste<br>matter shall be controlled to prevent any ...<br>process residue, etc. from flowing on to public<br>roads, adjacent property, or into any stream. |                              |
| Regulations for Tree<br>Trimming and Planting,<br>Clearing Fallen Trees and<br>Debris          | Y |   | Town of Darien Zoning Law, Article VI –<br>General Provisions<br>Sec.602-C: Regulates retention of trees.<br>Article VIII – Supplementary Regulations<br>Sec. 803: Mobile Homes and Mobile Home<br>Parks:<br>B3-t: All existing trees shall be preserved<br>insofar as possible in the design of the park.   |                              |
| Regulations for De-Icing<br>Roads, Plowing   |   | N |  |                              |
| Identification of Wetland<br>Areas   |   | N |  |                              |
| Watershed Management<br>Plan   |   | N |  |                              |
| Section on Location of<br>Major Pipelines  |   | N |  |                              |
| Regulations for Retrofitting<br>or Relocating the Existing<br>Overhead Lines to<br>Underground |   | N |  |                              |
| Natural Resource Inventory   |   | N |  |                              |

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| Regulations for Unsafe/Defective Structures                                |   | N |   |  |
| Environmental Overlays in Local Development Review Procedures              | Y |   | Town of Darien Zoning Law, Article VI – General Provisions<br>Sec. 602: Preservation of Natural Features: Regulates construction close to water; regulates excavations; and regulates retention of trees, drainage channels, brooks, etc. |  |
| Riparian protections or setbacks   | Y | N |   |  |
| Timber harvesting regulations  |   | N |   |  |
| Steep slope regulations or consideration within zoning or site plan review |   | N |   |  |
| Incompatible uses  | Y |   | Town of Darien Zoning Law, Article VIII – Supplementary Regulations<br>Sec. 804 Nonconforming Uses, Structures, and Lots  |  |
| Participation in the Federal Community Rating System                       |   | N |   |  |
| Participation in National Flood Insurance Program                          | Y |   |   | Most Recent FIRM 1984, FEMA Community Number 361140A |

| <b>Elba, Town</b>                          |            |           |   | <b>Local Law Assessment</b>                                   |
|--|------------|-----------|---|---|
| <b>Does the municipality have:</b>         | <b>Yes</b> | <b>No</b> | <b>Reference:</b>   | <b>Comments:</b>  |
| Comprehensive/Master Plan                  | Y          |           | Comprehensive Plan, Town of Elba  | Adopted 1999<br>Revised 2004<br>Revision taking place in 2007 |
| Zoning Ordinance                           | Y          |           | Town of Elba Zoning Law   | Adopted 1988<br>Amended 2001                                  |
| Subdivision Ordinance                      | Y          |           | Subdivision Ordinance (2004)  | Adopted 2002<br>Amended 2004                                  |
| Site Plan Review Process                   | Y          |           | Town of Elba Zoning Law, Article XIII – Administration and Enforcement<br>Sec. 808-C: Site Plan Review  |   |
| Code or Zoning Enforcement Officer         | Y          |           | Town of Elba Zoning Law<br>Article XIII – Administration and Enforcement<br>Sec. 801: Enforcement<br>Sec. 802: Duties of the Zoning Enforcement Officer | Zoning Enforcement Officer                                    |
| Flood Mitigation Plan                      |            | N         |   |   |
| Building Codes Pertaining to Flooding      |            | N         |   |   |
| Flood Officer (if NFIP community)          |            | N         |   |   |
| Provision for Repetitive Flooding Property | Y          |           | Town of Elba Zoning Law, Article IV – General Regulations<br>Section 401: Buildings, Uses, and Lots:<br>E. Lots Under Water or Subject to Flooding      |   |

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| Drainage Regulations Related to Flooding/Storm Water                         | Y |   | Town of Elba Zoning Law, Article VI – Supplementary Regulations<br>Sec. 607: Commercial Excavation:<br>E. Drainage<br><br>Article VII – Mobile Homes and Mobile Home Parks<br>Sec. 702: Mobile Home Parks:<br>3c. Storm Water Drainage  |  |
| Sediment and Erosion Control Measures  | Y |   | Town of Elba Zoning Law, Article IV – General Regulations<br>Section 402: Supplementary Yard Regulations, Stripping, and Excavations:<br>G. Top Soil<br>H. Excavation During Construction<br>Section 407: Dwelling Front Yard Grade: Surface grade of front yards of dwellings measured at the midpoint of the front wall, shall be at least one foot above the elevation of the road’s center line, unless adequate site drainage is provided otherwise and approved by the Town Highway Superintendent.<br><br>Article VI – Supplementary Regulations<br>Sec. 607: Commercial Excavation:<br>H. Fencing<br>J. Erosion |  |
| Regulations for Prevention of Water Supply Contamination                     | Y |   | Town of Elba Zoning Law, Article VI – Supplementary Regulations<br>Sec. 609: Swimming Pools:<br>D. Drainage: When draining a swimming pool such activity shall be conducted in a manner which will not be injurious to surrounding properties.<br><br>Article VII – Mobile Homes and Mobile Home Parks, Sec. 702: Mobile Home Parks<br>5: Required Site Improvements:<br>a. Water Supply System:<br>b. Sewerage Disposal and Treatment  |  |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris | Y |   | Town of Elba Zoning Law, Article IV – General Regulations<br>Section 402: Supplementary Yard Regulations, Stripping, and Excavations:<br>D. Visibility at Intersections<br><br>Article V – Zoning District Regulations<br>Section 607: Commercial Excavation:<br>G. Roadside Landscape  |  |
| Regulations for De-Icing Roads, Plowing                                      |   | N |   |  |
| Identification of Wetland Areas  |   | N |   |  |
| Watershed Management Plan  |   | N |   |  |
| Section on Location of Major Pipelines                                       |   | N |   |  |

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| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground       | Y |   | Town of Elba Zoning Law, Article VII – Mobile Homes and Mobile Home Parks<br>Sec.702-A-4-J: All utilities for the Mobile Home Park to be underground.<br>6A: All electrical installations in mobile home parks shall be underground.   |  |
| Natural Resource Inventory  |   | N |  |  |
| Regulations for Unsafe/Defective Structures   | Y |   | Town of Elba Zoning Law, Article IV – General Regulations<br>Sec.404-C: Nothing in the Town of Elba Zoning Law shall prevent the restoration and repair or continuation of use of a nonconforming building destroyed or partly destroyed by a disaster, provided that the restoration is commenced within 8 months after the date of destruction and is completed within 16 weeks after the date of destruction. |  |
| Environmental Overlays in Local Development Review Procedures                               | Y |   | Town of Elba Zoning Law, Article V – Zoning District Regulations<br>Sec. 501: Agricultural-Residential District A-R<br>Sec. 506: Flood Plain Overlay Zone-FPO  |  |
| Riparian protections or setbacks  |   | N |  |  |
| Timber harvesting regulations   |   | N |  |  |
| Steep slope regulations or consideration within Town of Elba Zoning Law or site plan review |   | N |  |  |
| Incompatible uses   | Y |   | Town of Elba Zoning Law, Article III – Establishment of Zoning Districts<br>Sec. 305: Lots in Two or More Districts<br><br>Article IV – General Regulations<br>Sec. 404: Nonconforming Uses, Structures, and Lots<br>Sec. 405 Uses Not Permitted   |  |
| Participation in the Federal Community Rating System  |   | N |  |  |
| Participation in National Flood Insurance Program   | Y |   |  | Most Recent FIRM 1984, FEMA Community Number 361120B |

| <b>Elba, Village</b>               |            |           |  | <b>Local Law Assessment</b> |
|------------------------------------|------------|-----------|--|-----------------------------|
| <b>Does the municipality have:</b> | <b>Yes</b> | <b>No</b> | <b>Reference:</b>                        | <b>Comments:</b>            |
| Comprehensive/Master Plan          | Y          |           | Comprehensive Plan, Village of Elba      | Adopted 1976                |
| Zoning Ordinance                   | Y          |           | Zoning Law, Village of Elba              | Adopted 1990, Amended 2001  |
| Subdivision Ordinance              | Y          |           | Subdivision Regulations, Village of Elba | Adopted 1973                |

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| Site Plan Review Process                             | Y |   | Zoning Law, Village of Elba, Article II - Administration<br>Sec.208-B-1: Site Plan Review   |                            |
| Code or Zoning Enforcement Officer                   | Y |   | Zoning Law, Village of Elba, Article II - Administration<br>Sec. 202 Duties of the Zoning Enforcement Officer   | Zoning Enforcement Officer |
| Flood Mitigation Plan                                |   | N |   |                            |
| Building Codes Pertaining to Flooding                | Y |   | Zoning Law, Village of Elba, Article III – Zoning District Regulations<br>Sec. 314: The Flood Plain Overlay Zone is shown on the Zoning Map of the Village of Elba for information purposes only to identify potential areas of special flood hazard, to ensure coordinated review of zoning and flood damage prevention regulations, and to minimize the threat of flood damages...In addition to the Zoning Law, areas within special flood hazard areas are regulated by Zoning Law#2 of 1987 for the Village of Elba.   |                            |
| Flood Officer (if NFIP community)                    |   | N |   |                            |
| Provision for Repetitive Flooding Property           | Y |   | Zoning Law, Village of Elba ,Article III – Zoning District Regulations<br>Sec. 314: Zoning Law#2 of 1978 for Village of Elba regulates areas within special flood hazard areas.<br><br>Subdivision Regulations, Village of Elba, Article V – General Requirements and Design Standards<br>Sec. A-1: Character of Land: Land to be subdivided shall be such that it can be used safely for building purposes. Land subject to flooding, and land deemed by the Planning Board to be otherwise uninhabitable, shall not be platted for residential occupancy or for other uses as may increase danger to health, life, or property. |                            |
| Drainage Regulations Related to Flooding/Storm Water | Y |   | Zoning Law, Village of Elba, Article IV – Supplementary Regulations<br>Sec.415-E-9: Adequate facility for stormwater drainage for mobile homes.<br><br>Subdivision Regulations, Village of Elba, Article V – General Requirements and Design Standards<br>C4: Storm drainage system to meet anticipated 10 year storm conditions and comply with specifications and plans approved by the Village Engineer.   |                            |

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| Sediment and Erosion Control Measures   | Y |   | Subdivision Regulations, Village of Elba, Article V – General Requirements and Design Standards<br>C4: Storm drainage system to meet anticipated 10 year storm conditions and comply with specifications and plans approved by the Village Engineer.   |
| Regulations for Prevention of Water Supply Contamination                              | Y |   | Subdivision Regulations, Village of Elba Article V – General Requirements and Design Standards<br>C5: Water mains to comply with the plans approved by the Village Engineer.   |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris          | Y |   | Zoning Law, Village of Elba, Article III – Zoning District Regulations<br>Sec. 301A-10C: Visibility at Intersections<br><br>Subdivision Regulations, Village of Elba, Article IV – Required Improvements<br>Sec. H: Landscaping and Preservation of Natural Features   |
| Regulations for De-Icing Roads, Plowing   |   | N |  |
| Identification of Wetland Areas   |   | N |  |
| Watershed Management Plan   |   | N |  |
| Section on Location of Major Pipelines  |   | N |  |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | Zoning Law, Village of Elba, Article IV – Supplementary Regulations<br>Sec.415E-2: All utilities for Mobile Homes to be underground.<br><br>Subdivision Regulations, Village of Elba, Article V – General Requirements and Design Standards<br>C3: Study to be made and presented analyzing the possibility of underground utilities.<br>F.2: All utilities which are primarily intended to provide service to lots within the subdivision shall be installed underground. |
| Natural Resource Inventory  |   | N |  |
| Regulations for Unsafe/Defective Structures   | Y |   | Zoning Law, Village of Elba, Article III – Zoning District Regulations<br>Sec.301C-3: Nothing in the Zoning Law shall prevent restoration and repair or continuation of use of a legal nonconforming building destroyed or partly destroyed by a disaster, provided that the restoration is commenced within 6 months after the date of destruction...   |

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| Environmental Overlays in Local Development Review Procedures              | Y |   | Comprehensive Plan, Village of Elba Conservation and Recreation Recommendations: One of the goals is to preserve community's natural environment.<br><br>Zoning Law, Village of Elba, Article III – Zoning District Regulations<br>Sec.314: Flood Plain Overlay Zone. |  |
| Riparian protections or setbacks   |   | N |   |  |
| Timber harvesting regulations  |   | N |   |  |
| Steep slope regulations or consideration within zoning or site plan review |   | N |   |  |
| Incompatible uses  | Y |   | Zoning Law, Village of Elba, Article III – Zoning District Regulations<br>Section 301C: Nonconforming, Uses, Structures, and Lots   |  |
| Participation in the Federal Community Rating System                       |   | N |   |  |
| Participation in National Flood Insurance Program                          | Y |   |   | Most Recent FIRM 1984, FEMA Community Number 361499A |

| <b>LeRoy Town</b>                          |            |           |  | <b>Local Law Assessment</b> |
|--|------------|-----------|--|-----------------------------|
| <b>Does the municipality have:</b>         | <b>Yes</b> | <b>No</b> | <b>Reference:</b>  | <b>Comments:</b>            |
| Comprehensive/Master Plan                  | Y          |           | Town of LeRoy Comprehensive Plan   | Adopted 2002                |
| Zoning Ordinance                           | Y          |           | Zoning, From the Code of the Town of LeRoy   | Adopted 1999                |
| Subdivision Ordinance                      | Y          |           | Subdivision of Land  | Adopted 1967, Revised 989   |
| Site Plan Review Process                   | Y          |           | Site Plan Review   | Adopted 1995                |
| Code or Zoning, Enforcement Officer        | Y          |           | Zoning, From the Code of the Town of LeRoy, Article VIII – Administration and Enforcement<br>Sec.165-42: Zoning Enforcement Officer  | Zoning Enforcement Officer  |
| Flood Mitigation Plan                      | Y          |           | Flood Damage Prevention  | Adopted 1998                |
| Building Codes Pertaining to Flooding      | Y          |           | Flood Damage Prevention, Article V: Construction Standards.  |                             |
| Flood Officer (if NFIP community)          | Y          |           | Flood Damage Prevention, Article IV - Administration<br>Sec. 81-11: Designation of local administrator.  |                             |
| Provision for Repetitive Flooding Property | Y          |           | Flood Damage Prevention, Article IV - Administration<br>Sec.81-14-G: Regulations in Special Flood Hazard Area. Certificate of compliance to be issued.<br><br>Zoning, From the Code of the Town of LeRoy, Article III – General Provisions<br>Sec. 165-11F: Lots under water or subject to flooding. |                             |

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|  |   |   | <p>Subdivision of Land, Article IV – Design Standards</p> <p>Sec. 135-13A: Character of Land. Land to be subdivided shall be of such character that it can be used safely for building purposes without danger to health or peril from fire, flood, or other menace.</p> <p>Sec. 135-22: Preservation of existing features: Existing features which would add value to residential development, such as large trees, watercourses and falls, beaches, historic spots and similar irreplaceable assets, should be preserved, insofar as possible, through harmonious design of the subdivision.</p>   |  |
| Drainage Regulations Related to Flooding/Storm Water                         | Y |   | <p>Flood Damage Prevention, Article V – Construction Standards</p> <p>Sec. 81-15A-3: Adequate drainage shall be provided to reduce exposure to flood damage.</p> <p>Sec.81-16C-3: Sanitary sewer and storm drainage system for buildings that have opening below the flood base elevation shall be provided with automatic backflow devices that are installed in each discharge line passing through building’s exterior wall.</p> <p>Zoning, From the Code of the Town of LeRoy, Article VIIB – Mobile Homes and Mobile Home Parks</p> <p>Sec. 165-41.6I: Mobile home facilities to be adequate facilities for surface and stormwater drainage.</p> <p>Subdivision of Land, Article IV – Design Standards</p> <p>Sec. 135-15: Street improvements: Streets shall be graded and improved with ... curbs, gutters, street trees, water mains, sanitary sewers, storm drains, and fire hydrants, except where waivers may be requested.</p> |  |
| Sediment and Erosion Control Measures  | Y |   | <p>Flood Damage Prevention, Article I – Statutory Authorization and Prevention</p> <p>Sec. 81-2D: Control filling, grading, dredging and other development which increase erosion or flood damages.</p>  |  |
| Regulations for Prevention of Water Supply Contamination                     |   | N |  |  |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris | Y |   | <p>Zoning, from the Code of the Town of LeRoy, Article III – General Provisions</p> <p>Sec. 165-12E: Visibility at Intersections</p> <p>Article VIIB – Mobile Homes and Mobile Home Parks</p> <p>Sec. 165-41.5C-17: Trees. All existing trees shall be preserved insofar as possible in the design of the park.</p> <p>Subdivision of Land, Article IV – Design</p>  |  |

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|   |   |   | Standards<br>Sec. 135-15: Street improvements: Streets shall be graded and improved with ... street trees ... except where waivers may be requested.<br>Sec. 135-22: Preservation of existing features: Existing features which would add value to residential development, such as large trees ... shall be preserved, insofar as possible, through harmonious design of the subdivision.                                      |  |
| Regulations for De-Icing Roads, Plowing   |   | N |   |  |
| Identification of Wetland Areas   | Y |   | Town of LeRoy Comprehensive Plan Inventory and Analysis: Natural Resources: Floodplain and New York State Wetland Location Map.   |  |
| Watershed Management Plan   |   | N |   |  |
| Section on Location of Major Pipelines  |   | N |   |  |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | Zoning, From the Code of the Town of LeRoy, Article VIIB – Mobile Homes and Mobile Home Parks<br>Sec.165-41.6B: Electrical systems, gas piping system, cable, telephone wires to be installed underground.<br><br>Subdivision of Land, Article IV – Design Standards<br>Sec. 135-15: Street improvements: Subdivider shall install underground service connections to the property line of each lot before the street is paved. |  |
| Natural Resource Inventory  | Y |   | Town of LeRoy Comprehensive Plan Inventory and Analysis: Natural Resources Inventory  |  |
| Regulations for Unsafe/Defective Structures   |   | N |   |  |
| Environmental Overlays in Local Development Review Procedures                         |   | N |   |  |
| Riparian protections or setbacks  |   | N |   |  |
| Timber harvesting regulations   |   | N |   |  |
| Steep slope regulations or consideration within zoning or site plan review            |   | N |   |  |
| Incompatible uses   | Y |   | Zoning, From the Code of the Town of LeRoy, Article II – Zoning Districts<br>Sec. 165-7: Lots in more than one district. District may be extended up to 50 feet, but additional requirements may apply.<br><br>Article III – General Provisions<br>Sec. 165-13: Nonconforming uses, lots, and structures  |  |

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| Participation in the Federal Community Rating System |   | N |   |
| Participation in National Flood Insurance Program    | Y |   | Most Recent FIRM 1979, FEMA Community Number 360280 |

| <b>LeRoy, Village</b>  |            |           | <b>Local Law Assessment</b>  |
|--|------------|-----------|--|
| <b>Does the municipality have:</b>   | <b>Yes</b> | <b>No</b> | <b>Reference:</b>  |
|  |            |           | <b>Comments:</b>   |
| Comprehensive/Master Plan  | Y          |           | Village of LeRoy Comprehensive Plan  |
| Zoning Ordinance   | Y          |           | Zoning, Village of LeRoy   |
| Subdivision Ordinance  | Y          |           | Subdivision Regulations, Village of LeRoy  |
| Site Plan Review Process   | Y          |           | Subdivision Regulations, Village of LeRoy<br>Sec. 50-6: Sketch Plan  |
| Code or Zoning Enforcement Officer   | Y          |           | Zoning, Village of LeRoy, Article II – Administration<br>Sec. 215-8: Enforcement<br>Sec. 215-9: Duties of the Zoning Enforcement Officer   |
| Flood Mitigation Plan  |            | N         |  |
| Building Codes Pertaining to Flooding  |            | N         |  |
| Flood Officer (if NFIP community)  |            | N         |  |
| Provision for Repetitive Flooding Property                                   | Y          |           | Subdivision Regulations, Village of LeRoy<br>Sec. 50-11A: Land to be subdivided shall be of such character that it can be used safely for building purposes without danger to health or peril from fire, flood, or other menace. |
| Drainage Regulations Related to Flooding/Storm Water                         | Y          |           | Sec. 50-8B: Basis for approval of final subdivision plat: Water mains, sanitary sewers, and storm drains or combined sewers and storm drains shall be installed.<br>Sec. 50-12C: Storm drainage<br>Sec. 50-12D: Sanitary Sewers  |
| Sediment and Erosion Control Measures  |            | N         |  |
| Regulations for Prevention of Water Supply Contamination                     | Y          |           | Subdivision Regulations, Village of LeRoy<br>Sec. 50-12D: Sanitary Sewers<br>Sec. 50-12E: Water Supply   |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris | Y          |           | Zoning, Village of LeRoy, Article III – Zoning District Regulations<br>Sec. 215-21A-9c: Visibility at Intersections<br><br>Subdivision Regulations, Village of LeRoy<br>Sec. 50-12G: Shade Trees                                 |
| Regulations for De-Icing Roads, Plowing                                      |            | N         |  |

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| Identification of Wetland Areas   | Y |   | Village of LeRoy Comprehensive Plan Inventory and Analysis: Natural Resources: New York State Wetlands Location Map  |                                   |
| Watershed Management Plan   |   | N |  |                                   |
| Section on Location of Major Pipelines  |   | N |  |                                   |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground |   |   | N  |                                   |
| Natural Resource Inventory  | Y |   | Village of LeRoy Comprehensive Plan Inventory and Analysis: Natural Resources  |                                   |
| Regulations for Unsafe/Defective Structures   | Y |   | Zoning, Village of LeRoy, Article III – Zoning District Regulations<br>Sec. 215-21: General Regulations<br>C3: Abandonment<br>C4: Restoration and Repair: No building damaged by fire or other causes to to[sic] the extent of more than 50% of its assessed valuation shall be repaired or rebuilt except in conformity with the regulations of this chapter. |                                   |
| Environmental Overlays in Local Development Review Procedures                         | Y |   | Zoning, Village of LeRoy, Article III – Zoning District Regulations<br>Sec. 215-33: Land Conservation LC District<br>Sec. 215-35: Floodplain Overlay Zone FPO  |                                   |
| Riparian protections or setbacks  |   | N |  |                                   |
| Timber harvesting regulations   |   | N |  |                                   |
| Steep slope regulations or consideration within zoning or site plan review            |   | N |  |                                   |
| Incompatible uses   | Y |   | Zoning, Village of LeRoy, Article III – Zoning District Regulations<br>Sec. 215-21: General Regulations:<br>C: Nonconforming uses, structures, and lots.<br>D. Uses not permitted.   |                                   |
| Participation in the Federal Community Rating System                                  |   | N |  |                                   |
| Participation in National Flood Insurance Program                                     | Y |   |  | FEMA Community Number 3602810001B |

| <b>Oakfield, Town</b>              |            |           |   | <b>Local Law Assessment</b> |
|------------------------------------|------------|-----------|---|-----------------------------|
| <b>Does the municipality have:</b> | <b>Yes</b> | <b>No</b> | <b>Reference:</b>                             | <b>Comments:</b>            |
| Comprehensive/Master Plan          | Y          |           | Oakfield-Alabama Comprehensive Plan           | Adopted 2005                |
| Zoning Ordinance                   | Y          |           | Town of Oakfield Zoning Ordinance             | Adopted 1981, Amended 1998  |
| Subdivision Ordinance              | Y          |           | Town of Oakfield Land Subdivision Regulations | Adopted 1992                |

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| Site Plan Review Process                                 | Y |   | Land Subdivision Regulations, Town of Oakfield, Article III – Procedure for Filing Subdivision Application<br>Section 1: Sketch Plan  |
| Code or Zoning Enforcement Officer                       |   | N |   |
| Flood Mitigation Plan                                    |   | N |   |
| Building Codes Pertaining to Flooding                    |   | N |   |
| Flood Officer (if NFIP community)                        |   | N |   |
| Provision for Repetitive Flooding Property               | Y |   | Town of Oakfield Zoning Ordinance, Article IV – Regulations for Districts<br>Sec. 411.5 Lots Under Water<br><br>Town of Oakfield Land Subdivision Regulations, Article IV – Design Standards<br>Sec. 1A: Character of Land: Land to be subdivided shall be of such character that it can be used safely for intended purposes without danger to health or peril from fire, flood, or other menace.<br><br>Article IV – Design Standards<br>Section 2: Design Standards of Improvements:<br>G. Floodplains |
| Drainage Regulations Related to Flooding/Storm Water     | Y |   | Town of Oakfield Zoning Ordinance, Article V – General Regulations<br>Sec. 532.3C: Storm Water Drainage<br><br>Town of Oakfield Land Subdivision Regulations, Article IV – Design Standards<br>Section 2: Design Standards of Improvements:<br>D. Storm water drainage, erosion and sediment control measures and easements.<br><br>Article V – Improvements<br>Section 1: General Improvements:<br>B. Storm Drains   |
| Sediment and Erosion Control Measures                    | Y |   | Town of Oakfield Land Subdivision Regulations, Article IV – Design Standards<br>Section 2: Design Standards of Improvements:<br>D. Storm water drainage, erosion and sediment control measures and easements.   |
| Regulations for Prevention of Water Supply Contamination | Y |   | Town of Oakfield Land Subdivision Regulations, Article V – Improvements<br>Section 1: General Improvements:<br>E. Wastewater Treatment Systems<br>F. Water Supply Systems   |

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| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris          | Y |   | Town of Oakfield Zoning Ordinance, Article IV – Regulations for Districts Sec. 412.5: Visibility at Intersections<br><br>Town of Oakfield Land Subdivision Regulations, Article IV – Design Standards Section 2: Design Standards of Improvements:<br>E. Landscaping and ground cover  |  |
| Regulations for De-Icing Roads, Plowing   |   | N |  |  |
| Identification of Wetland Areas   | Y |   | Oakfield – Alabama Comprehensive Plan For the Town of Oakfield, Town of Alabama, and Village of Oakfield<br>4.0 Existing Conditions of the Communities<br>4.1 Natural Environment<br>4.3.4 Flooding and Wetlands   |  |
| Watershed Management Plan   |   | N |  |  |
| Section on Location of Major Pipelines  | Y |   | Oakfield – Alabama Comprehensive Plan For the Town of Oakfield, Town of Alabama, and Village of Oakfield<br>4.0 Existing Conditions of the Communities<br>4.6 Utilities<br>4.6.1 Water Supply  |  |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | Town of Oakfield Zoning Ordinance, Article V – General Regulations 532.6A: Electrical systems shall be underground.<br><br>Town of Oakfield Land Subdivision Ordinance, Article IV – Design Standards Section 2: Design Standards of Improvements:<br>C. Utility Easements: Also, all utilities which are primarily intended to provide service to the lots within the Subdivision shall be installed underground at a depth and at such locations as will minimize risk of interruption of service. |  |
| Natural Resource Inventory  | Y |   | Oakfield – Alabama Comprehensive Plan For the Town of Oakfield, Town of Alabama, and Village of Oakfield<br>4.0 Existing Conditions of the Communities<br>4.1 Natural Environment<br><br>Town of Oakfield Land Subdivision Ordinance, Article IV – Design Standards Section 2: Design Standards of Improvements:<br>F. Preservation of Natural Features  |  |
| Regulations for Unsafe/Defective Structures   |   | N |  |  |
| Environmental Overlays in Local Development Review Procedures                         | Y |   | Town of Oakfield Zoning Ordinance, Article IV – Regulations for Districts Sec. 425: Land Conservation- LC  |  |

|  |   |   |  |                                  |
|--|---|---|--|----------------------------------|
| Riparian protections or setbacks   |   | N |  |                                  |
| Timber harvesting regulations  |   | N |  |                                  |
| Steep slope regulations or consideration within zoning or site plan review |   | N |  |                                  |
| Incompatible uses  | Y |   | Town of Oakfield Zoning Ordinance, Article III – Establishment of Districts<br>Sec. 340: Lots in two or more districts:<br>Extensions may be permitted up to 50 feet, while further regulations may apply.<br><br>Article IV – Regulations for Districts<br>Sec. 413: Nonconforming Uses, Structures, and Lots |                                  |
| Participation in the Federal Community Rating System                       |   | N |  |                                  |
| Participation in National Flood Insurance Program                          | Y |   |  | FEMA Community Number<br>361119B |

| <b>Oakfield, Village</b>                   |            |           | <b>Local Law Assessment</b>  |                            |
|--|------------|-----------|--|----------------------------|
| <b>Does the municipality have:</b>         | <b>Yes</b> | <b>No</b> | <b>Reference:</b>  | <b>Comments:</b>           |
| Comprehensive/Master Plan                  | Y          |           | Oakfield – Alabama Comprehensive Plan For the Town of Oakfield, Town of Alabama, and Village of Oakfield   | Adopted 2005               |
| Zoning Ordinance                           | Y          |           | Village of Oakfield Zoning Law   | Unknown year               |
| Subdivision Ordinance                      | Y          |           | Village of Oakfield Subdivision Regulations  | Adopted 1992               |
| Site Plan Review Process                   | Y          |           | Village of Oakfield Zoning Law, Article II – Administration<br>Sec. 208C: Site Plan Review   |                            |
| Code or Zoning Enforcement Officer         | Y          |           | Village of Oakfield Zoning Law, Article II – Administration<br>Sec. 201: Enforcement<br>Sec. 202: Duties of the Zoning Enforcement Officer   | Zoning Enforcement Officer |
| Flood Mitigation Plan                      |            | N         |  |                            |
| Building Codes Pertaining to Flooding      |            | N         |  |                            |
| Flood Officer (if NFIP community)          |            | N         |  |                            |
| Provision for Repetitive Flooding Property | Y          |           | Village of Oakfield Subdivision Regulations, Article IV – General Requirements and Design Standards<br>Section 1: General:<br>A. Character of Land: Land to be subdivided shall be of such character that it can be used safely for intended purposes without danger to health or peril from fire, flood, or other menace.<br>Section 7A: Land Subject to Flooding |                            |

|  |   |   |  |  |
|--|---|---|--|--|
| Drainage Regulations Related to Flooding/Storm Water                         | Y |   | <p>Village of Oakfield Zoning Law, Article V – Supplementary Regulations<br/>Sec. 511E-9: Storm Water Drainage</p> <p>Village of Oakfield Subdivision Regulations, Article IV – General Requirements and Design Standards<br/>Section 7: Storm Water Drainage, Erosion, and Sediment Control Measures</p> <p>Article V – Documents to be Submitted<br/>Sec. 3A-10: Stormwater drainage, erosion and sediment control plan must be included.</p>  |  |
| Sediment and Erosion Control Measures  | Y |   | <p>Village of Oakfield Subdivision Regulations, Article IV – General Requirements and Design Standards<br/>Section 7: Storm Water Drainage, Erosion, and Sediment Control Measures</p> <p>Article V – Documents to be Submitted<br/>Sec. 3A-10: Stormwater drainage, erosion and sediment control plan must be included.</p>   |  |
| Regulations for Prevention of Water Supply Contamination                     | Y |   | <p>Village of Oakfield Subdivision Regulations, Article IV – General Requirements and Design Standards<br/>Sec. 6: Water Supply and Sanitary Sewer</p>   |  |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris | Y |   | <p>Village of Oakfield Zoning Law, Article III – Zoning District Regulations<br/>Sec. 301A-8c: Visibility at Intersections</p> <p>Article V – Supplementary Regulations<br/>Article 511: Mobile Home Parks:<br/>C18: Trees: All existing trees shall be preserved insofar as possible in the design of the park.</p> <p>Village of Oakfield Subdivision Regulations, Article IV – General Requirements and Design Standards<br/>Sec. 8F: Preservation of Natural Features:<br/>Large trees shall be preserved. Trees of a certain size are not allowed to be cut down unless planning board approval is given.</p> |  |
| Regulations for De-Icing Roads, Plowing                                      |   | N |  |  |
| Identification of Wetland Areas  | Y |   | <p>Oakfield – Alabama Comprehensive Plan For the Town of Oakfield, Town of Alabama, and Village of Oakfield<br/>4.0 Existing Conditions of the Communities<br/>4.1 Natural Environment<br/>4.3.4 Flooding and Wetlands</p>   |  |
| Watershed Management Plan  |   | N |  |  |

|   |   |   |  |  |
|---|---|---|--|--|
| Section on Location of Major Pipelines  | Y |   | Oakfield – Alabama Comprehensive Plan For the Town of Oakfield, Town of Alabama, and Village of Oakfield<br>4.0 Existing Conditions of the Communities<br>4.6 Utilities<br>4.6.1 Water Supply  |  |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | Village of Oakfield Zoning Law, Article V – Supplementary Regulations<br>Sec. 511E-2: Underground Utilities<br>Electrical systems, gas piping systems, cable and telephone wires, and community and individual fuel storage shall be installed underground.<br><br>Village of Oakfield Subdivision Regulations, Article IV – General Requirements and Design Standards<br>Sec. 3C: Utilities in Streets: In areas of new development, the Planning Board shall require that underground utilities be placed in the street right-of-way between the paved roadway and street line to simplify location and repair of lines when they require attention. The subdivider shall install underground service connection to the property line of each lot. |  |
| Natural Resource Inventory  | Y |   | Oakfield – Alabama Comprehensive Plan For the Town of Oakfield, Town of Alabama, and Village of Oakfield<br>4.0 Existing Conditions of the Communities<br>4.1 Natural Environment<br><br>Village of Oakfield Subdivision Regulations, Article IV – General Requirements and Design Standards<br>Sec. 8F: Preservation of Natural Features  |  |
| Regulations for Unsafe/Defective Structures   | Y |   | Village of Oakfield Zoning Law, Article III – Zoning District Regulations<br>Sec. 301C-3: Nothing in this Local Law shall prevent the restoration and repair or continuation of use of a nonconforming building destroyed or partly destroyed by a disaster, provided that restoration is commenced within six months after the date of destruction and is completed within twelve months after date of destruction.   |  |
| Environmental Overlays in Local Development Review Procedures                         |   | N |  |  |
| Riparian protections or setbacks  |   | N |  |  |
| Timber harvesting regulations   |   | N |  |  |
| Steep slope regulations or consideration within zoning or site plan review            |   | N |  |  |

|   |   |   |  |                                  |
|---|---|---|--|----------------------------------|
| Incompatible uses                                       | Y |   | Village of Oakfield Zoning Law,<br>Article III – Zoning District Regulations<br>Sec. 301C: Nonconforming Uses, Structures,<br>and Lots |                                  |
| Participation in the Federal<br>Community Rating System |   | N |  |                                  |
| Participation in National<br>Flood Insurance Program    | Y |   |  | FEMA Community Number<br>361500B |

| <b>Pavilion, Town</b>                         |            |           | <b>Local Law Assessment</b>  |                            |
|---|------------|-----------|--|----------------------------|
| <b>Does the municipality<br/>have:</b>        | <b>Yes</b> | <b>No</b> | <b>Reference:</b>  | <b>Comments:</b>           |
| Comprehensive/Master Plan                     |            | N         |  |                            |
| Zoning Ordinance                              | Y          |           | Town of Pavilion Zoning Ordinance  | Adopted 1990, Amended 1995 |
| Subdivision Ordinance                         | Y          |           | Town of Pavilion Land Subdivision<br>Regulations   | Adopted 1991               |
| Site Plan Review Process                      |            | N         | Town of Pavilion Subdivision Regulations,<br>Article III: Procedure for Filing Subdivision<br>Application<br>Sec. 1 Sketch Plan  |                            |
| Code or Zoning<br>Enforcement Officer         | Y          |           | Town of Pavilion Zoning Ordinance,<br>Article VIII – Administration and<br>Enforcement<br>Sec. 801: Enforcement<br>Sec. 802: Duties of the Zoning Enforcement<br>Officer   | Zoning Enforcement Officer |
| Flood Mitigation Plan                         |            | N         |  |                            |
| Building Codes Pertaining<br>to Flooding      |            | N         |  |                            |
| Flood Officer (if NFIP<br>community)          |            | N         |  |                            |
| Provision for Repetitive<br>Flooding Property | Y          |           | Town of Pavilion Zoning Ordinance,<br>Article IV – General Regulations<br>Sec. 401E: Lots Under Water or Subject to<br>Flooding<br><br>Town of Pavilion Land Subdivision<br>Regulations, Article IV – Design Standards<br>Section 1: General Conditions:<br>A. Character of Land: Land to be subdivided<br>shall be of such character that it can be used<br>safely for intended purposes without danger to<br>health or peril from fire, flood, or other<br>menace.<br>Section 2: Design Standards of Improvements<br>B6: Where there is a question as to the<br>suitability of a lot or lots for their intended use<br>due to factors such as rock formation, flood<br>conditions, or similar circumstances, the<br>Planning Board may, after investigation,<br>withhold approval for such lots.<br>G. Floodplains |                            |

|  |   |   |   |  |
|--|---|---|---|--|
| Drainage Regulations Related to Flooding/Storm Water                         | Y |   | <p>Town of Pavilion Zoning Ordinance, Article VI – Supplementary Regulations<br/>Sec. 607B: Minor Excavation:<br/>4. Drainage<br/>9. Erosion</p> <p>Article VII – Mobile Homes and Mobile Home Parks<br/>Sec. 702A-3c: Storm Water Drainage</p> <p>Town of Pavilion Land Subdivision Regulations, Article IV – Design Standards<br/>Section 2: Design Standards of Improvements:<br/>D. Storm water drainage, erosion and sediment control measures and easements.</p> <p>Article V – Improvements<br/>Section 1: General Improvements:<br/>B. Storm Drains</p> |  |
| Sediment and Erosion Control Measures  | Y |   | <p>Town of Pavilion Zoning Ordinance, Article VI – Supplementary Regulations<br/>Sec. 607B: Minor Excavation:<br/>4. Drainage<br/>9. Erosion</p> <p>Town of Pavilion Land Subdivision Regulations, Article IV – Design Standards<br/>Section 2: Design Standards of Improvements:<br/>D. Storm water drainage, erosion and sediment control measures and easements.</p>   |  |
| Regulations for Prevention of Water Supply Contamination                     | Y |   | <p>Town of Pavilion Land Subdivision Regulations, Article V – Improvements<br/>Section 1: General Improvements:<br/>E. Wastewater Treatment Systems<br/>F. Water Supply Systems</p>   |  |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris | Y |   | <p>Town of Pavilion Zoning Ordinance, Article IV – General Regulations<br/>Sec. 402D: Visibility at Intersections</p> <p>Town of Pavilion Land Subdivision Regulations, Article IV – Design Standards<br/>Section 2: Design Standards of Improvements:<br/>F: Preservation of Natural Features.<br/>6. No large tree can be removed without approval, unless it is in the street right-of-way.</p>  |  |
| Regulations for De-Icing Roads, Plowing                                      |   | N |   |  |
| Identification of Wetland Areas  |   | N |   |  |
| Watershed Management Plan  |   | N |   |  |
| Section on Location of Major Pipelines                                       |   | N |   |  |

|   |   |   |  |                               |
|---|---|---|--|-------------------------------|
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | Town of Pavilion Zoning Ordinance, Article VII – Mobile Homes and Mobile Home Parks<br>Sec. 702A-6: Electrical systems shall be underground<br><br>Town of Pavilion Land Subdivision Regulations, Article IV – Design Standards Section 2: Design Standards of Improvements:<br>C. Utility Easements: Also, all utilities which are primarily intended to provide service to the lots within the Subdivision shall be installed underground at a depth and at such locations as will minimize risk of interruption of service. |                               |
| Natural Resource Inventory  |   | N |  |                               |
| Regulations for Unsafe/Defective Structures   | Y |   | Town of Pavilion Zoning Ordinance, Article IV – General Regulations<br>Sec. 404C: Restoration and Repair<br>Timeline on reconstruction of properties damaged in a natural disaster.  |                               |
| Environmental Overlays in Local Development Review Procedures                         | Y |   | Town of Pavilion Zoning Ordinance, Article V – Zoning District Regulations<br>Sec. 507: Flood Plain Overlay Zone- FPO  |                               |
| Riparian protections or setbacks  |   | N |  |                               |
| Timber harvesting regulations   |   | N |  |                               |
| Steep slope regulations or consideration within zoning or site plan review            |   | N |  |                               |
| Incompatible uses   | Y |   | Town of Pavilion Zoning Ordinance, Article IV – General Regulations<br>Sec. 404: Nonconforming Uses, Structures, and Lots<br>Sec. 405: Uses Not Permitted  |                               |
| Participation in the Federal Community Rating System                                  |   | N |  |                               |
| Participation in National Flood Insurance Program                                     | Y |   |  | FEMA Community Number 360282B |

| <b>Pembroke, Town</b>              |            |           | <b>Local Law Assessment</b>                          |                  |
|------------------------------------|------------|-----------|--|------------------|
| <b>Does the municipality have:</b> | <b>Yes</b> | <b>No</b> | <b>Reference:</b>                                    | <b>Comments:</b> |
| Comprehensive/Master Plan          | Y          |           | Comprehensive Plan Town of Pembroke Village of Corfu | Adopted 1998     |
| Zoning Ordinance                   | Y          |           | Town of Pembroke Zoning Law                          | Amended 2003     |
| Subdivision Ordinance              | Y          |           | Town of Pembroke Land Subdivision Local Law          | Adopted 2003     |
| Site Plan Review Process           |            | N         |  |                  |

|  |   |   |   |                            |
|--|---|---|---|----------------------------|
| Code or Zoning Enforcement Officer                   | Y |   | Town of Pembroke Zoning Law, Article VII – Administration and Enforcement<br>Sec. 701 Duties of the Zoning Enforcement Officer<br>Sec. 702 Duties of the Zoning Administration Officer  | Zoning Enforcement Officer |
| Flood Mitigation Plan                                | Y |   | Flood Damage Prevention   | Adopted 1983               |
| Building Codes Pertaining to Flooding                | Y |   | Town of Pembroke Local Law No. 2 of the Year 1992: Flood Damage Prevention<br>Section 5.2-1: Residential Construction: New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above the base flood elevation.<br>Section 5.2-2: Non-Residential Construction: New construction and substantial improvement of any commercial, industrial or other non-residential structure shall either have the lowest floor, including the basement, elevated to or above the base flood elevation; or [see document for other conditions].   |                            |
| Flood Officer (if NFIP community)                    |   | N |   |                            |
| Provision for Repetitive Flooding Property           | Y |   | Flood Damage Prevention<br>Sec. 5.1-3 Utilities<br><br>Town of Pembroke Zoning Law,<br>Article III – General Regulations<br>Sec. 301E: Lots Under Water or Subject to Flooding<br><br>Town of Pembroke Land Subdivision Local Law, Article IV – Development Procedures<br>Sec. 1B: Flood Land, State Regulated Wetland, and Federal Regulated Wetlands  |                            |
| Drainage Regulations Related to Flooding/Storm Water | Y |   | Flood Damage Prevention<br>Requirements for Subdivision Streets and/or Roads<br>5) Drainage: All culvert and driveway pipes shall be such that they are designed in conformance to the latest ASTM design for use under highways. All drainage structures shall be placed prior to the road base and installed to proper grade and slope. [See document for more details].<br>Sec. 5.1-3 Utilities<br><br>Town of Pembroke Zoning Law,<br>Article VI – Mobile Homes and Mobile Home Parks<br>Sec. 602A-3c: Storm Water Drainage<br><br>Town of Pembroke Land Subdivision Local Law, Article V – Improvements<br>Sec. 1D: Storm and Surface Drainage<br>Sec. 1H: Drainage Facilities |                            |

|   |   |   |   |  |
|---|---|---|---|--|
|   |   |   | Article XI – Design Criteria [for sewers]   |  |
|   |   |   | Article IV – Design Criteria<br>Section C-2: Storm Drainage Systems   |  |
| Sediment and Erosion Control Measures   | Y |   | Town of Pembroke Zoning Law,<br>Article V – Supplemental Regulations<br>Sec. 507B Minor Excavation<br><br>Town of Pembroke Land Subdivision Local Law, Article IV – Development Requirements<br>Sec. 2L: Erosion Sediment Control<br><br>Construction and Design Criteria, Article VI:<br>Installation of Improvements<br>Section J. See Erosion and Sediment Controls.   |  |
| Regulations for Prevention of Water Supply Contamination                              | Y |   | Flood Damage Prevention<br>Section 5.1-3: Utilities:<br>(1) All new and replacement water systems shall be design to minimize or eliminate infiltration of flood waters into the system.<br>(2) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the systems into flood waters.<br>5.1-4: Subdivision Proposals: Similar requirements to 5.1-3 apply to subdivisions.<br><br>Town of Pembroke Land Subdivision Local Law, Article V – Improvements<br>Sec. 1D: Storm and Surface Drainage<br>Sec. 1E: Sewage Disposal System<br>Sec. 1F: Water Supply |  |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris          | Y |   | Town of Pembroke Zoning Law,<br>Article III – General Regulations<br>Sec. 302D: Visibility at Intersections<br><br>Town of Pembroke Land Subdivision Local Law, Article IV – Development Requirements<br>Sec. 2K: Tree Protection Guidelines  |  |
| Regulations for De-Icing Roads, Plowing   |   | N |   |  |
| Identification of Wetland Areas   |   | N |   |  |
| Watershed Management Plan   |   | N |   |  |
| Section on Location of Major Pipelines  |   | N |   |  |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | Town of Pembroke Zoning Law,<br>Article VI – Mobile Homes and Mobile Home Parks<br>Sec. 602-4j: All utilities shall be underground.<br><br>Town of Pembroke Land Subdivision Local Law, Article IV – Development Requirements<br>Sec. 2H: Sewer, water, gas, electrical, street lighting or other public utility facilities proposed, shall be installed and maintained   |  |

|  |   |   |   |                              |
|--|---|---|---|------------------------------|
|  |   |   | underground in all residential, commercial, and industrial developments.<br><br>Article V – Improvements<br>Sec. 1L: Electric, Telephone, Cable TV or Other Buried Cable Units                                |                              |
| Natural Resource Inventory   |   | N |   |                              |
| Regulations for Unsafe/Defective Structures                                | Y |   | Town of Pembroke Zoning Law, Article III – General Regulations<br>Sec. 304C: Restoration and Repair: Guidelines for properties damaged in natural disasters.  |                              |
| Environmental Overlays in Local Development Review Procedures              | Y |   | Town of Pembroke Zoning Law, Article IV – Zoning District Regulations<br>Sec. 401: Agricultural District- AG<br>Sec. 402: Agricultural- Residential District- AG-R<br>Sec. 411: Flood Plain Overlay Zone- FPO |                              |
| Riparian protections or setbacks   |   | N |   |                              |
| Timber harvesting regulations  |   | N |   |                              |
| Steep slope regulations or consideration within zoning or site plan review |   | N |   |                              |
| Incompatible uses  | Y |   | Town of Pembroke Zoning Law, Article III – General Regulations<br>Sec. 304 Nonconforming Uses, Buildings, Structures, and Lots  |                              |
| Participation in the Federal Community Rating System                       |   | N |   |                              |
| Participation in National Flood Insurance Program                          | Y |   |   | FEMA Community Number 360282 |

| <b>Stafford, Town</b>                 |            |           |  | <b>Local Law Assessment</b>  |
|---------------------------------------|------------|-----------|--|------------------------------|
| <b>Does the municipality have:</b>    | <b>Yes</b> | <b>No</b> | <b>Reference:</b>  | <b>Comments:</b>             |
| Comprehensive/Master Plan             | Y          |           | Draft Comprehensive Plan, Town of Stafford   | 2005 Draft                   |
| Zoning Ordinance                      | Y          |           | Town of Stafford Zoning Law  | Adopted 1987<br>Amended 1998 |
| Subdivision Ordinance                 | Y          |           | Subdivision Regulation (1971)<br>Land Separation Regulations (1999)<br>Note: Ref. Draft Comprehensive Plan (2005)              | Amended 1999                 |
| Site Plan Review Process              | Y          |           | Town of Stafford Zoning Law, Article IV – Site Plan  |                              |
| Code or Zoning Enforcement Officer    | Y          |           | Town of Stafford Zoning Law, Article VII – Enforcement, Administration, and Amendments<br>Sec. 701: Zoning Enforcement Officer | Zoning Enforcement Officer   |
| Flood Mitigation Plan                 |            | N         |  |                              |
| Building Codes Pertaining to Flooding |            | N         |  |                              |

|   |   |   |   |
|---|---|---|---|
| Flood Officer (if NFIP community)   |   | N |   |
| Provision for Repetitive Flooding Property  | Y |   | Town of Stafford Zoning Law, Article III – Regulations for Zoning Districts<br>Sec. 301E: Lots Under Water or Subject to Flooding   |
| Drainage Regulations Related to Flooding/Storm Water                                  | Y |   | Town of Stafford Zoning Law, Article IV – Site Plan<br>Sec.401B-6: Site Plan to include storm drainage, water supply, sanitary sewer.<br>Article V – Mobile Homes and Mobile Home Parks<br>Sec. 502E-9: Storm water drainage for mobile homes.  |
| Sediment and Erosion Control Measures   | Y |   | Town of Stafford Zoning Law, Article VI – Supplementary Regulations<br>Sec. 660B: Minor Excavation  |
| Regulations for Prevention of Water Supply Contamination                              | Y |   | Town of Stafford Zoning Law, Article V – Mobile Homes and Mobile Home Parks<br>Sec. 502E-1: Water and Sewage System: Water supply and sewage treatment facilities shall be installed and maintained.  |
| Regulations for Tree Trimming and Planting, Clearing Fallen Trees and Debris          | Y |   | Town of Stafford Zoning Law, Article III – Regulations for Zoning Districts<br>Article 302E: Visibility at Intersections<br><br>Article V – Mobile Homes and Mobile Home Parks<br>Sec. 502C-18: Trees: All existing trees shall be preserved insofar as possible in the design of the park. |
| Regulations for De-Icing Roads, Plowing   |   | N |   |
| Identification of Wetland Areas   | Y |   | Draft Comprehensive Plan, Town of Stafford, Section II – Inventory of Existing Conditions<br>D. Environmental Resources: Wetlands   |
| Watershed Management Plan   |   | N |   |
| Section on Location of Major Pipelines  | Y |   | Draft Comprehensive Plan, Town of Stafford, Section II – Inventory of Existing Conditions<br>E. Utilities: Public Water   |
| Regulations for Retrofitting or Relocating the Existing Overhead Lines to Underground | Y |   | Town of Stafford Zoning Law<br>Article V – Mobile Homes and Mobile Home Parks<br>Sec.502E-2: Underground Utilities for mobile homes.  |
| Natural Resource Inventory  | Y |   | Draft Comprehensive Plan, Town of Stafford, Section II – Inventory of Existing Conditions<br>B. Environmental Resources   |
| Regulations for Unsafe/Defective Structures   |   | N |   |

|  |   |   |  |  |
|--|---|---|--|--|
| Environmental Overlays in Local Development Review Procedures              | Y |   | Town of Stafford Zoning Law, Article III – Regulations for Zoning Districts<br>Sec. 312: Agricultural-Residential District A-R<br><br>Draft Comprehensive Plan, Town of Stafford, Section III – Goals and Objectives<br>B. Goals and Objectives: Protection of environmental features and resources of the Town of Stafford. |  |
| Riparian protections or setbacks   |   | N |  |  |
| Timber harvesting regulations  |   | N |  |  |
| Steep slope regulations or consideration within zoning or site plan review |   | N |  |  |
| Incompatible uses  | Y |   | Town of Stafford Zoning Law, Article II – Establishment of Zoning Districts<br>Sec. 204 Lots in Two or More Districts<br><br>Article III – Regulations for Zoning Districts<br>Sec. 303: Nonconforming Uses, Structures, and Lots  |  |
| Participation in the Federal Community Rating System                       |   | N |  |  |
| Participation in National Flood Insurance Program                          | Y |   |  | Most Recent FIRM 1982, FEMA Community Number 361118A |

# Appendix C

Genesee County Municipal Adoption Resolutions

**GENESEE COUNTY ALL – HAZARD MITIGATION PLAN: MODEL RESOLUTION**

(Name of Jurisdiction) \_\_\_\_\_

(Governing Body) \_\_\_\_\_

(Address) \_\_\_\_\_

The following resolution was offered by \_\_\_\_\_ and seconded by \_\_\_\_\_:

**RESOLUTION**

**WHEREAS**, the \_\_\_\_\_, with the assistance from the Genesee/Finger Lakes Regional Planning Council, has gathered information and prepared the Genesee County All – Hazard Mitigation Plan; and

**WHEREAS**, the Genesee County All – Hazard Mitigation Plan has been prepared in accordance with the Disaster Mitigation Act of 2000; and

**WHEREAS**, the \_\_\_\_\_ is a local unit of government that has afforded the citizens an opportunity to comment and provide input in the Plan and the actions in the Plan; and

**WHEREAS**, the Board has reviewed the Plan and affirms that the Plan will be updated no less than every five years;

**NOW, THEREFORE**, Be It Resolved, by the Board of the \_\_\_\_\_ adopts the Genesee County All – Hazard Mitigation Plan as this jurisdiction’s All – Hazard Mitigation Plan, and resolves to execute the actions in the Plan.

ADOPTED this \_\_\_\_\_ at the meeting of the Board of \_\_\_\_\_ by the following vote:

# Appendix D

## Genesee County Flood Problem Site Matrix

| Site Number | Description of Site/Issue   | Municipality  | Mitigation  | Priority | Estimated Time Frame | Potential Funding Sources | Potential Lead | Potential Involved Agencies | Approximate Cost (\$) | Comments/Info Source/Questions  |
|-------------|---|---------------|---|----------|----------------------|---------------------------|----------------|-----------------------------|-----------------------|---|
| 39          | Bowen Road flooding   | Alexander (T) | Further evaluation required   | No       | Long term            | Town of Alexander         | Alexander (T)  | NYSDEC, ACOE                | TBD                   | 2004 SWCD Drainage Survey. Insufficient data provided by Town Hwy Supt. |
| 40          | Seward Road flooding  | Alexander (T) | Further evaluation required   | No       | Long term            | Town of Alexander         | Alexander (T)  | NYSDEC, ACOE                | TBD                   | 2004 SWCD Drainage Survey. Insufficient data provided by Town Hwy Supt. |
| 41          | Goodman Road  | Alexander (T) | Further evaluation required.  | No       | Long term            | Town of Alexander         | Alexander (T)  | NYSDEC, ACOE                | TBD                   | 2004 SWCD Drainage Survey. Insufficient data provided by Town Hwy Supt. |
| 42          | Genesee Street  | Alexander (T) | Problem possibly solved.  | No       | Long term            | Town of Alexander         | Alexander (T)  | NYSDEC, ACOE                | TBD                   | 2004 SWCD Drainage Survey. Insufficient data provided by Town Hwy Supt. |
| 43          | Spring Road flooding  | Alexander (T) | Further evaluation required.  | No       | Long term            | Town of Alexander         | Alexander (T)  | NYSDEC, ACOE                | TBD                   | 2004 SWCD Drainage Survey. Insufficient data provided by Town Hwy Supt. |
| 44          | Dry Bridge Road flooding  | Alexander (T) | Further evaluation required   | No       | Long term            | Town of Alexander         | Alexander (T)  | NYSDEC, ACOE                | TBD                   | 2004 SWCD Drainage Survey. Insufficient data provided by Town Hwy Supt. |
| 45          | Peaviner Road - annual flooding causes erosion of road shoulders and washout of road. Town would like to abandon this roadway due to cost of maintenance. | Alexander (T) | Determine residences and businesses potentially affected by road abandonment plans. Determine cost of road abandonment. Evaluate options for either abandoning the road or raising the road profile above the BFE and increasing culvert sizes to permit free flow of flood waters. | No       | Intermediate         | Town of Alexander         | Alexander (T)  | Genesee County              | TBD                   | 2004 SWCD Drainage Survey. Comments by Town of Alexander Hwy Supt.      |

|    |  |               |   |    |              |                   |               |                |            |  |
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| 46 | Cookson Road - annual flooding causes erosion of road shoulders and occasional washouts. Town would like to abandon this roadway to reduce maintenance costs.    | Alexander (T) | Determine residences and businesses potentially affected by road abandonment plans. Determine cost of road abandonment. Evaluate options for either abandoning the road or raising the road profile above the BFE and increasing culvert sizes to permit free flow of flood waters. | No | Intermediate | Town of Alexander | Alexander (T) | Genesee County | TBD        | 2004 SWCD Drainage Survey. Comments by Town of Alexander Hwy Supt. |
| 71 | Cookson Road west of abandoned railroad embankment - flooding causes washouts of road shoulder and undermines roadway. Town would like to abandon this roadway.  | Alexander (T) | Determine residences and businesses potentially affected by road abandonment plans. Determine cost of road abandonment. Evaluate options for either abandoning the road or raising the road profile above the BFE and increasing culvert sizes to permit free flow of flood waters. | No | Intermediate | Town of Alexander | Alexander (T) | Genesee Co.    | Staff time | 2004 SWCD Drainage Survey. Comments by Town of Alexander Hwy Supt. |
| 72 | Cookson Road between Tonawanda Cr and Old Creek Rd. - road floods frequently, washing out shoulders and undermining road   | Alexander (T) | (1) Determine cost and implications of road abandonment. Evaluate options for either abandoning the road or raising the road profile above the BFE and increasing culvert sizes to permit free flow of flood waters.  | No | Intermediate | Town of Alexander | Alexander (T) | Genesee County | TBD        | 2004 SWCD Drainage Survey. Comments by Town of Alexander Hwy Supt. |
| 73 | Old Creek Road south of Cookson Road - frequent flooding undermines road, erodes road shoulders. Town would like to abandon this road to save maintenance costs. | Alexander (T) | Determine residences and businesses potentially affected by road abandonment plans. Determine cost of road abandonment. Evaluate options for either abandoning the road or raising the road profile above the BFE and increasing culvert sizes to permit free flow of flood waters. | No | Intermediate | Town of Alexander | Alexander (T) | Genesee County | TBD        | 2004 SWCD Drainage Survey. Comments by Town of Alexander Hwy Supt. |

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| 74 | Cookson Road between old railroad and Rt. 98 - flooding undermines roadway and washes out shoulders, increases maintenance costs | Alexander (T) | Determine residences and businesses potentially affected by road abandonment plans. Determine cost of road abandonment. Evaluate options for either abandoning the road or raising the road profile above the BFE and increasing culvert sizes to permit free flow of flood waters. | No  | Intermediate | Town of Alexander       | Alexander (T) | Genesee County | TBD    | 2004 SWCD Drainage Survey. Comments by Town of Alexander Hwy Supt.   |
| 75 | Flooding from Bowen Creek at southwest corner of Wortendyke & Pike Rds affects house @ 3390 Pike Road                            | Alexander (T) | Evaluate option of acquisition of structure and relocation of residents vs. cost of raising home above BFE.   | No  | Intermediate | Town of Alexander       | Alexander (T) | Genesee County | TBD    | Source: 2004 SWCD Drainage Study. Mentioned as drainage problem by Town. Check of property shows residence potentially affected.                                   |
| 76 | Sprague Road - slipping due to frequent flooding   | Alexander (T) | Evaluate causes of slipping and/or slope failure. Determine if underdrain improvements are required to relieve excess water in underdrains.   | No  | Intermediate | Town of Alexander       | Alexander (T) | Genesee County | TBD    | Source: 2004 SWCD Drainage Study   |
| 77 | Stannard Road - secondary flooding   | Alexander (T) | Evaluate option of raising road profile.  | No  | Intermediate | Town of Alexander       | Alexander (T) |                | TBD    | Source: 2004 SWCD Drainage Study   |
| 86 | Residence at 3932 Cookson Road has been flooded numerous times. House has sustained significant damage.                          | Alexander (T) | Acquire house and relocate residents away from flood prone area. Rezone or develop overlay district to preclude future residential use of this property.  | Yes | Intermediate | Town of Alexander, FEMA | Alexander (T) | FEMA, SEMO     | 19,600 | Proposed by Co. EMO and Planning Staff for acquisition. Value obtained by subtracting land assessment value from total assessed value on Genesee Co. 2006 Tax Roll |
| 87 | Residence at 3936 Cookson Road, floods frequently. Home has sustained damaged.   | Alexander (T) | Acquire house and relocate residents away from flood prone area. Rezone or develop overlay district to preclude future residential use of this property.  | Yes | Intermediate | Town of Alexander, FEMA | Alexander (T) | FEMA, SEMO     | 45,500 | Proposed by Co. EMO and Planning Staff for acquisition. Value obtained by subtracting land assessment value from total assessed value on Genesee Co. 2006 Tax Roll |

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| 106  | Cookson Road bridge over Tonawanda Creek is out. Cookson Road floods frequently and washes out.            | Alexander (T) | (1) Evaluate raising profile of Cookson Road above BFE.<br>(2) Evaluate abandonment of Cookson Road.   | No  | Intermediate | Town of Alexander                | Alexander (T)  | FEMA, SEMO             | TBD            | Source: 2003 Study   |
| 155  | Large log jam downstream of Rt. 20 bridge over Tonawanda Cr.   | Alexander (T) | Monitoring required.   | No  | Ongoing      | Town of Alexander                | Alexander (T)  | Genesee County         | Staff time     | County Highway Superintendent reported that this log jam was removed. It sometimes reforms and must be removed consistently to maintain channel flow.              |
| 191  | Peaviner Road bridge over Tonawanda Creek  | Alexander (T) | (1) Evaluate option of raising profile of Peaviner Road, and replacing the bridge with a larger hydraulic opening.   | No  | Intermediate | NYSDOT Pass Thru, Genesee County | Genesee County | Genesee County, NYSDOT | TBD            | Source: 2003 Study   |
| 193  | Railroad grades through town, ownership and culvert maint. issues  | Alexander (T) | Contact property owners regarding maintenance of culverts. Advise owners of responsibility to maintain drainage features. If no response received, clean out culverts as needed, and charge to tax assessment. | No  | Ongoing      | Tax levy against railroad        | Alexander (T)  | Railroads, NYSDOT      | \$2-4K/culvert | Source: 2003 Study   |
| 194  | Erosion problems on West Bethany Rd. south of Hyde Rd.   | Alexander (T) | (1) Evaluate slope stabilization methods.  | No  | Ongoing      | Town of Alexander                | Alexander (T)  | None                   | \$2-4K/site    | Source: 2003 Study   |
| 196  | Railroad near Stroh Rd crossing; this is an active line that floods; commercial prop. impacted by flooding | Alexander (T) | Evaluate levees or building retrofitting as potential mitigation measures.   | No  | Long term    | Private, FEMA                    | Alexander (T)  | FEMA, SEMO             | TBD            | Source: 2003 Study   |
| 1002 | 4213 Cookson Road. Residence has been damaged by repeated flooding from Tonawanda Creek.                   | Alexander (T) | Consider acquisition of structure and provision of relocation assistance to residents. Enact zoning to preclude future residential use of this site.   | Yes | Short term   | SEMO, FEMA                       | Alexander (T)  | FEMA, SEMO             | 5600           | Proposed by Co. EMO and Planning Staff for acquisition. Value obtained by subtracting land assessment value from total assessed value on Genesee Co. 2006 Tax Roll |

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| 1003 | 3341 Stroh Road (Richardson residence) protected by flood wall, reportedly gets flooded out with high water flooding   | Alexander (T) | Evaluate option to acquire house and greenhouses in flood prone area. Provide relocation assistance to resident.   | Yes | Short term   | SEMO, FEMA  | Alexander (T) | FEMA, SEMO                 | 57100  | Proposed by Co. EMO and Planning Staff for acquisition. Value obtained by subtracting land assessment value from total assessed value on Genesee Co. 2006 Tax Roll |
|      | Peaviner Road is being undermined by repeated flooding. Shoulders require frequent repair.   | Alexander (T) | Consider raising profile of road.  | No  | Intermediate | Town of Alexander, NYSDOT Pass Thru, Genesee County | Alexander (T) | None                       | TBD    | Specific sections of Peaviner Road to be evaluated by Town Hwy Dept.   |
| 36   | Rt. 20 bridge over Tonawanda Creek main channel. Bridge hydraulic opening is about 3/4 full of debris (Hwy supt report). Bridge is not taking full flow of creek at this point due to clogging from debris | Alexander (V) | Refer to NYSDOT as maintenance issue.  | No  | Long term    | NYSDOT  | NYSDOT        | NYSDEC, ACOE               | TBD    | Reported by hwy supt in survey from G. Squires, 2004   |
| 37   | First culvert on Rt. 20 east of TC main channel - culverts not flowing due to clogging with debris. Channel needs cleaning   | Alexander (V) | Further evaluation required  | No  | Ongoing      | NYSDOT  | NYSDOT        | NYSDEC, ACOE               | TBD    | Reported by hwy supt in survey from G. Squires, 2004   |
| 38   | Poor flow from ditches to Creek channel. Ditches and creek need cleaning.  | Alexander (V) | Further evaluation required  | No  | Ongoing      | Town & Vg of Alexander                              | Alexander (V) | NYSDEC, ACOE               | TBD    | Reported by hwy supt in survey from G. Squires, 2004   |
| 95   | 3421 Telephone Road, PIN 2.-3-1, house damaged repeatedly by flooding from Tonawanda Creek   | Alexander (V) | Evaluate option of acquiring structures and providing relocation assistance to affected residents. Demolish structures and restrict future development to non-structural uses. | No  | Intermediate | Village of Alexander, FEMA, SEMO                    | Alexander (V) | Genesee County, FEMA, SEMO | 72,100 | Originally included as part of site 153 in 2003 Study. Value obtained by subtracting land assessment value from total assessed value on Genesee Co. 2006 Tax Roll  |

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| 96     | 3416 Telephone Road, PIN 2.-3-21, house damaged repeatedly by flooding from Tonawanda Creek  | Alexander (V) | Evaluate option of acquiring structures and providing relocation assistance to affected residents. Demolish structures and restrict future development to non-structural uses. | No  | Intermediate | Village of Alexander, FEMA, SEMO | Alexander (V)  | Genesee County, FEMA, SEMO | 16,400                      | Originally included as part of site 153 in 2003 Study. Value obtained by subtracting land assessment value from total assessed value on Genesee Co. 2006 Tax Roll |
| 97     | 3427 Telephone Road, PIN 2.-3-2, house damaged repeatedly by flooding from Tonawanda Creek   | Alexander (V) | Evaluate option of acquiring structures and providing relocation assistance to affected residents. Demolish structures and restrict future development to non-structural uses. | No  | Intermediate | Village of Alexander, FEMA, SEMO | Alexander (V)  | Genesee County, FEMA, SEMO | 36,900                      | Originally included as part of site 153 in 2003 Study. Value obtained by subtracting land assessment value from total assessed value on Genesee Co. 2006 Tax Roll |
| 98     | 3435 Telephone Road, PIN 2.-3-4, house damaged repeatedly by flooding from Tonawanda Creek   | Alexander (V) | Evaluate option of acquiring structures and providing relocation assistance to affected residents. Demolish structures and restrict future development to non-structural uses. | No  | Intermediate | Village of Alexander, FEMA, SEMO | Alexander (V)  | Genesee County, FEMA, SEMO | 50,400                      | Originally included as part of site 153 in 2003 Study. Value obtained by subtracting land assessment value from total assessed value on Genesee Co. 2006 Tax Roll |
| 99     | 3438 Telephone Road, PIN 2-3-20.1, house damaged repeatedly by flooding from Tonawanda Creek | Alexander (V) | Evaluate option of acquiring structures and providing relocation assistance to affected residents. Demolish structures and restrict future development to non-structural uses. | No  | Intermediate | Village of Alexander, FEMA, SEMO | Alexander (V)  | Genesee County, FEMA, SEMO | 27,600                      | Originally included as part of site 153 in 2003 Study. Value obtained by subtracting land assessment value from total assessed value on Genesee Co. 2006 Tax Roll |
| 102.01 | Potential exposure of sanitary sewer mains along streambank                                  | Alexander (V) | Evaluate relocation of sewer mains. Evaluate bank protection options. Seek grant funding to protect existing utility.  | No  | Short term   | Village of Alexander, FEMA, SEMO | Alexander (V)  | Genesee County             | 10,000                      | Source: 2003 Study  |
| 104.04 | Log jams and debris accumulate around Railroad Ave. bridge piers                             | Alexander (V) | Remove log jams and debris from stream channel 200 ft. upstream of project site.   | No. | Ongoing      | Vg of Alexander                  | Genesee County | ACOE, NYSDEC               | Staff time to monitor: \$4K | Source: 2003 Study  |

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| 153  | Telephone Road is 2nd road to go underwater during flood events.                                 | Alexander (V) | Consider raising profile of road.  | No   | Short term   | NYS DOT Pass Thru, Genesee County | Alexander (V)            | Genesee County             | TBD    | Source: 2003 Study   |
| 154  | Rt. 20 east of Tonawanda Cr., roadway floods before bridge                                       | Alexander (V) | Consult NYS Dept. of Transportation. Evaluate raising road profile. Determine potential effects on adjacent homes.   | No   | Long term    | NYS DOT                           | NYS DOT                  | Genesee County             | TBD    | Source: 2003 Study   |
| 156  | Vg. Of Alexander sewer pump station on south side of Railroad Ave east of Tonawanda Cr bridge    | Alexander (V) | Evaluate floodproofing the pump station. Construct levees to protect the structure. Install floodproof pumps.  | High | Intermediate | Vg of Alexander, FEMA, SEMO       | Alexander (V)            | Genesee County             | TBD    | Source: 2003 Study   |
| 157  | Town/Vg. Highway garage and salt storage barn, Railroad Ave, east of Tonawanda Cr, in floodplain | Alexander (V) | Relocate highway garage and salt storage barn away from flood prone area.  | High | Short term   | Vg of Alexander, FEMA, SEMO       | Alexander Town & Village | Genesee County, FEMA, SEMO | TBD    | Source: 2003 Study. Town has purchased site to relocate highway garage and salt barn. Needs funding to reconstruct and relocate facilities.                                      |
| 158  | Sewer plant outfall, N end of Vg. Of Alexander, erosion impacting outfall pipe                   | Alexander (V) | Consider rip rap or rock gabion should be considered near outfall site.  | No   | Short term   | Vg of Alexander, SEMO Grant Funds | Alexander (V)            | Genesee County, FEMA, SEMO | TBD    | Source: 2003 Study   |
| 159  | Bridge over Tonawanda trib betw school campus and firehall                                       | Alexander (V) | Use grant funding to obtain support to design a replacement bridge structure with an adequate hydraulic opening.   | No   | Intermediate | NYS Education Dept.,              | Alexander CSD            | ACOE, NYSDEC               | TBD    | Source: 2003 Study. Bridge is used as a secondary evacuation route for the school. This should be eligible for some type of school or federal emergency funding for replacement. |
| 1000 | 3453 Railroad Avenue, PIN 2.-3-8.1   | Alexander (V) | Evaluate option of acquiring structures and providing relocation assistance to affected residents. Demolish structures and restrict future development to non-structural uses. | Yes  | Short term   | Vg of Alexander, SEMO Grant Funds | Alexander (V)            | FEMA, SEMO, Genesee County | 67,300 | Source: County EMO and Planning Department. Value obtained by subtracting land assessment value from total assessed value on Genesee Co. 2006 Tax Roll                           |

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| 1001   | 3505 Railroad Avenue, PIN 2.-3-9   | Alexander (V)   | Evaluate option of acquiring structures and providing relocation assistance to affected residents. Demolish structures and restrict future development to non-structural uses.       | ?   | Short term   | Vg of Alexander, SEMO Grant Funds | Alexander (V)   | FEMA, SEMO, Genesee County | 157,850 | Source: County EMO and Planning Department. Value obtained by subtracting land assessment value from total assessed value on Genesee Co. 2006 Tax Roll |
| 109    | City of Batavia Water Treatment Plant  | Batavia (C)     | Conduct feasibility study to determine requirements for additional floodproofing and protection.   | Yes | Intermediate | City of Batavia                   | City of Batavia | FEMA, SEMO, Genesee County | TBD     | Source: 2003 Study   |
| 109.01 | City of Batavia Wellhead Protection Area   | Batavia (C)     | Floodproof Cedar Street wells. Temporarily shut off wells during periods of high water. Develop and institute water conservation measures for periods when wells are out of service. | No  | Intermediate | City of Batavia                   | City of Batavia | FEMA, SEMO, Genesee County | TBD     | Source: 2003 Study   |
| 110    | Chapin/Old Sylvania Plant  | Batavia (C)     | The cleanup status and the assurance that remediation address the issue of flooding should be determined.  | No  | Long term    | NYSDEC                            | City of Batavia | NYSDEC                     | TBD     | Source: 2003 Study   |
| 110.01 | Cedar St. railroad underpass   | Batavia (C)     | Consider the use of a storm water pump station to route storm water away from this facility.   | No  | Intermediate | City of Batavia                   | City of Batavia | FEMA, SEMO, Genesee County | TBD     | Source: 2003 Study.  |
| 110.02 | City of Batavia Bureau of Maintenance is isolated during flood events.   | Batavia (C)     | City is planning reconstruction of Rt. 98 between City Line & Tonawanda Creek now.   | No  | Short term   | City of Batavia                   | City of Batavia | NYS DOT, Genesee County    | TBD     | Source: 2003 Study   |
| 166    | Flooding on Law and Walnut Sts occurs at least 1x/2-3 years. Results in closure of Rt. 98. Co. uses Rose Rd to Donoghue Rd to Rt. 33 as detour. Rose & Donoghue Roads are not built for heavy truck traffic that is detoured on these roads. | Town of Batavia | Town DPW Supt. Wants funding to reconstruct Rose & Donoghue Roads to handle heavier truck traffic during emergency closures of Rt. 98.   | No  | Intermediate | Town of Batavia, SEMO Grant       | Town of Batavia | NYS DOT, Genesee County    | TBD     | Note: City of Batavia will be reconstructed Rt. 98 between City line and Tonawanda Cr. How will this affect the flood patterns?                        |

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| 169 | Oakland Avenue levee  | Batavia (C) | No apparent mitigation required. Douglas Smith, USACOE Buffalo District, reported that flood control structures and measures in Batavia are inspected yearly and are in excellent condition. | No  | None              | NA                          | U.S. Army Corps of Engineers       | City of Batavia | Staff time for inspections | Source: 2003 Study. What is status of this structure? Is repair required? Corps of Engineers was going to visit. We did not get follow up status report.                               |
| 171 | Streambank erosion near intersection of Jackson & Oakland Aves  | Batavia (C) | Remove threatened outbuilding. Reinforce streambank on property.   | No  | Short term        | City of Batavia             | City of Batavia                    | City of Batavia | \$2-4K                     | Source: 2003 Study   |
| 172 | Ice jamming on Tonawanda Creek near Kibbe Park  | Batavia (C) | Monitor and remove ice jams as needed to prevent ice-related flooding.   | No  | Ongoing in season | City of Batavia             | City of Batavia                    | USACOE, NYSDEC  | \$5K                       | Source: 2003 Study   |
| 174 | Tonawanda Creek channel, south of DEC dams. The City would like to obtain more easements along Tonawanda Creek south of the DEC dams. At the present time, they have no easements and cannot go in and clean debris out of the channel. The land along the channel is all in private ownership.                                 | Batavia (C) | Acquire easements, monitor debris accumulation and remove as necessary.  | No  | Ongoing           | City of Batavia             | City of Batavia                    | USACOE, NYSDEC  | TBD                        | Source: 2003 Study. What is status of City obtaining easements from private property owners along Creek in this reach?   |
| 175 | The Big Ditch is an old tributary of Tonawanda Creek that drains the north side of the City. It was placed underground in a tunnel structure 75-100 years ago. Concerns include age and condition of the structure, access and maintenance, and impacts if it ever collapsed or was blocked. The structure also runs through or | Batavia (C) | Determine number of structures in City that may be affected if this tunnel failed. Do a failure analysis and develop appropriate response plan. Develop a repair plan if required.           | Yes | Intermediate      | City of Batavia, SEMO Grant | City of Batavia and Genesee County | None            | Staff time                 | This structure was not considered critical infrastructure in the 2003 Study. However, failure of this structure could affect a number of critical facilities (hospitals, homes, etc.). |

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|      | along basements in this part of the city. Finally, it is not included on FIRM and perhaps should be, since it really is a natural drainage feature that still functions, albeit underground. |             |  |    |              |                             |                 |           |        |   |
| 1010 | 114 Walnut Street - residential structure affected by flooding from Tonawanda Creek  | Batavia (C) | (1) Acquire structure and provide relocation assistance to residents; rezone to preclude residential use of this site; (2) Raise structure to elevation above BFE. | No | Intermediate | City of Batavia, SEMO Grant | City of Batavia | SEMO/FEMA | 42100  | Source: Len Walker, City of Batavia Engineer, pers. comm. To F. Oltremari, April 2007. Value = Total assessed valuation - land assess valuation |
| 1011 | 118 Walnut Street - residential structure affected by repeated flooding from Tonawanda Creek   | Batavia (C) | (1) Acquire structure and provide relocation assistance to residents; rezone to preclude residential use of this site; (2) Raise structure to elevation above BFE. | No | Intermediate | City of Batavia, SEMO Grant | City of Batavia | SEMO/FEMA | 48,500 | Source: Len Walker, City of Batavia Engineer, pers. comm. To F. Oltremari, April 2007. Value = Total assessed valuation - land assess valuation |
| 1012 | 120 Walnut Street - residential structure affected by repeated flooding from Tonawanda Creek   | Batavia (C) | (1) Acquire structure and provide relocation assistance to residents; rezone to preclude residential use of this site; (2) Raise structure to elevation above BFE. | No | Intermediate | City of Batavia, SEMO Grant | City of Batavia | SEMO/FEMA | 48,500 | Source: Len Walker, City of Batavia Engineer, pers. comm. To F. Oltremari, April 2007. Value = Total assessed valuation - land assess valuation |
| 1013 | 135 Walnut Street - structure affected by repeated flooding from Tonawanda Creek   | Batavia (C) | (1) Acquire structure and provide relocation assistance to residents; rezone to preclude residential use of this site; (2) Raise structure to elevation above BFE. | No | Intermediate | City of Batavia, SEMO Grant | City of Batavia | SEMO/FEMA | 53,400 | Source: Len Walker, City of Batavia Engineer, pers. comm. To F. Oltremari, April 2007. Value = Total assessed valuation - land assess valuation |
| 1014 | 142 Walnut Street - structure affected by repeated flooding from Tonawanda Creek   | Batavia (C) | (1) Acquire structure and provide relocation assistance to residents; rezone to preclude residential use of this site; (2) Raise structure to elevation above BFE. | No | Intermediate | City of Batavia, SEMO Grant | City of Batavia | SEMO/FEMA | 56,000 | Source: Len Walker, City of Batavia Engineer, pers. comm. To F. Oltremari, April 2007. Value = Total assessed valuation - land assess valuation |

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| 1015 | 14 Law Street - structure affected by flooding from Tonawanda Creek | Batavia (C) | (1) Acquire structure and provide relocation assistance to residents; rezone to preclude residential use of this site; (2) Raise structure to elevation above BFE. | No  | Intermediate | City of Batavia, SEMO Grant | City of Batavia | SEMO/FEMA | 59,700 | Source: Len Walker, City of Batavia Engineer, pers. comm. To F. Oltremari, April 2007. Value = Total assessed valuation - land assess valuation |
| 1016 | 16 Law Street - structure affected by flooding from Tonawanda Creek | Batavia (C) | (1) Acquire structure and provide relocation assistance to residents; rezone to preclude residential use of this site; (2) Raise structure to elevation above BFE. | No  | Intermediate | City of Batavia, SEMO Grant | City of Batavia | SEMO/FEMA | 40,600 | Source: Len Walker, City of Batavia Engineer, pers. comm. To F. Oltremari, April 2007. Value = Total assessed valuation - land assess valuation |
| 1017 | 22 Law Street - structure affected by flooding from Tonawanda Creek | Batavia (C) | (1) Acquire structure and provide relocation assistance to residents; rezone to preclude residential use of this site; (2) Raise structure to elevation above BFE. | No  | Intermediate | City of Batavia, SEMO Grant | City of Batavia | SEMO/FEMA | 58,400 | Source: Len Walker, City of Batavia Engineer, pers. comm. To F. Oltremari, April 2007. Value = Total assessed valuation - land assess valuation |
| 1018 | 24 Law Street - structure affected by flooding from Tonawanda Creek | Batavia (C) | (1) Acquire structure and provide relocation assistance to residents; rezone to preclude residential use of this site; (2) Raise structure to elevation above BFE. | No  | Intermediate | City of Batavia, SEMO Grant | City of Batavia | SEMO/FEMA | 57,700 | Source: Len Walker, City of Batavia Engineer, pers. comm. To F. Oltremari, April 2007. Value = Total assessed valuation - land assess valuation |
| 1019 | 26 Law Street - structure affected by flooding from Tonawanda Creek | Batavia (C) | (1) Acquire structure and provide relocation assistance to residents; rezone to preclude residential use of this site; (2) Raise structure to elevation above BFE. | No  | Intermediate | City of Batavia, SEMO Grant | City of Batavia | SEMO/FEMA | 52,900 | Source: Len Walker, City of Batavia Engineer, pers. comm. To F. Oltremari, April 2007. Value = Total assessed valuation - land assess valuation |
| 88   | 9262 Dorman Road residence suffers repeated flood damage            | Batavia (T) | Acquire structure and provide relocation assistance to residents. Rezone to preclude residential re-use of this site.  | Yes | Short term   | Town of Batavia, SEMO Grant | Batavia (T)     | SEMO/FEMA | 12,000 | Proposed by Co. EMO and Planning Staff  |
| 89   | 9265 Dorman Road residence suffers repeated flood damage            | Batavia (T) | Acquire structure and provide relocation assistance to residents. Rezone to preclude residential re-use of   | Yes | Short term   | Town of Batavia, SEMO Grant | Batavia (T)     | SEMO/FEMA | 16,700 | Proposed by Co. EMO and Planning Staff  |

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|        |  |             | this site.   |     |            |                             |             |           |        |  |
| 90     | 9284 Dorman Road - residence suffers repeated flood damage     | Batavia (T) | Acquire structure and provide relocation assistance to residents. Rezone to preclude residential re-use of this site.  | Yes | Short term | Town of Batavia, SEMO Grant | Batavia (T) | SEMO/FEMA | 2000   | Proposed by Co. EMO and Planning Staff |
| 91     | 9291 Dorman Road residence suffers repeated flood damage       | Batavia (T) | Acquire structure and provide relocation assistance to residents. Rezone to preclude residential re-use of this site.  | Yes | Short term | Town of Batavia, SEMO Grant | Batavia (T) | SEMO/FEMA | 2000   | Proposed by Co. EMO and Planning Staff |
| 92     | 9322 Dorman Road residence suffers repeated flood damage       | Batavia (T) | Acquire structure and provide relocation assistance to residents. Rezone to preclude residential re-use of this site.  | Yes | Short term | Town of Batavia, SEMO Grant | Batavia (T) | SEMO/FEMA | 43300  | Proposed by Co. EMO and Planning Staff |
| 93     | 9416 Dorman Road residence suffers repeated flood damage       | Batavia (T) | Acquire structure and provide relocation assistance to residents. Rezone to preclude residential re-use of this site.  | Yes | Short term | Town of Batavia, SEMO Grant | Batavia (T) | SEMO/FEMA | 57,600 | Proposed by Co. EMO and Planning Staff |
| 108    | Tonawanda Creek from Dorman Road to City of Batavia South Line | Batavia (T) | Town would like to consider abandoning road if no residences are present.  | No  | Short term | Town of Batavia, SEMO Grant | Batavia (T) | SEMO/FEMA | TBD    | Source: 2003 Study                     |
| 112.01 | West End Trailer Park  | Batavia (T) | Remove residential structures from lands below base flood elevation. Educate residents about emergency evacuation procedures. Request park operator to advise EMO and local fire/rescue squads of residents requiring special assistance (wheelchairs, oxygen, kidney dialysis, blind or hearing impaired, elderly). | Yes | Short term | Town of Batavia, SEMO Grant | Batavia (T) | SEMO/FEMA | TBD    | Source: 2003 Study                     |
| 112.02 | Batavia Mobile Home Park                                       | Batavia (T) | Remove residential structures from lands below base flood elevation. Educate residents about emergency evacuation procedures. Request park operator to advise EMO and local fire/rescue squads of residents requiring special  | Yes | Short term | Town of Batavia, SEMO Grant | Batavia (T) | SEMO/FEMA | TBD    | Source: 2003 Study                     |

|        |   |             |   |     |              |                             |             |                                  |  |                    |
|--------|---|-------------|---|-----|--------------|-----------------------------|-------------|----------------------------------|--|--------------------|
|        |   |             | assistance (wheelchairs, oxygen, kidney dialysis, blind or hearing impaired, elderly).  |     |              |                             |             |                                  |  |                    |
| 113    | Residential development in channel between Rt. 5 and South Main St.   | Batavia (T) | Acquire and remove residential structures below base flood elevation; or evaluate feasibility of floodproofing residences to current standards.                                       | Yes | Short term   | Town of Batavia, SEMO Grant | Batavia (T) | SEMO/FEMA                        | TBD  | Source: 2003 Study |
| 113.01 | Stegman Road flooding   | Batavia (T) | Place rip rap along outside of meander south of Stegman Road or move road further away from creek.  | No  | Short term   | Town of Batavia, SEMO Grant | Batavia (T) | Genesee Co. SWCD, USACOE, NYSDEC | \$75/yd  | Source: 2003 Study |
| 116    | Wortendyke Road bend in Tonawanda Creek channel experiences flooding due to ice jamming in the creek.   | Batavia (T) | Recommend installing an alarm to warn residents of ice buildup in channel at bridge.  | No  | Short term   | Town of Batavia, SEMO Grant | Batavia (T) | Genesee County                   | TBD  | Source: 2003 Study |
| 116.01 | Rt. 5 (Bushville) bridge over Tonawanda Creek receives scour from ice jams in the winter.   | Batavia (T) | Note: This is a NYS Dept. of Transportation Structure. County should request NYSDOT to evaluate bridge condition and placement. Determine if repairs are needed to this truss bridge. | No  | Intermediate | NYSDOT                      | NYSDOT      | NYSDEC, USACOE                   | Staff time   | Source: 2003 Study |
| 162    | Valu Plaza, West Main St. experiences flooding problems consistent with other locations along West Main Street.   | Batavia (T) | Implement storm water management retrofit.  | No  | Short term   | Private, FEMA               | Batavia (T) | Genesee County                   | Staff time   | Source: 2003 Study |
| 163    | Area south of South Main Street is not shown as flood prone on the FIRM. This area is known to flood frequently. Residents must often be evacuated to avoid loss of life or injury. | Batavia (T) | Include this area when Town flood maps are re-evaluated.  | No  | Short term   | Town of Batavia, SEMO Grant | Batavia (T) | Genesee County                   | Staff time for grant application; cost of mapping TBD by bid process | Source: 2003 Study |

|     |  |             |  |    |              |                |             |                        |     |  |
|-----|--|-------------|--|----|--------------|----------------|-------------|------------------------|-----|--|
| 164 | Earthen dam/weir, Tonawanda Cr. Tributary, near Rt. 63 and Veterans Road                           | Batavia (T) | Problem may be a culvert with NYSDOT culvert at Rt. 63. Recommend reviewing problem with NYSDOT. | No | Intermediate | NYSDOT         | Batavia (T) | NYSDOT, Genesee County | TBD | Source: 2003 Study   |
| 17  | Gilbert and Old State Roads - Kramer, Paesch & Hintz properties                                    | Bergen (T)  | Further evaluation required  | No | Long term    | Town of Bergen | Bergen (T)  | None                   | TBD | Info from Town Hwy Superintendent                              |
| 18  | West Bergen Road at Morton Property  | Bergen (T)  | Further evaluation required  | No | Long term    | Town of Bergen | Bergen (T)  | None                   | TBD | Info from Town Hwy Superintendent                              |
| 19  | Lyman Road - between Rt. 33 on Ridley property   | Bergen (T)  | Further evaluation required  | No | Long term    | Town of Bergen | Bergen (T)  | None                   | TBD | Info from Town Hwy Superintendent                              |
| 20  | Lyman Road - west of W. Bergen Rd, area behind road frontage houses to south; householder property | Bergen (T)  | Further evaluation required  | No | Long term    | Town of Bergen | Bergen (T)  | None                   | TBD | Info from Town Hwy Superintendent                              |
| 21  | Peachey Road - At creek tributary near road pipe crossing; poor drainage to Black Creek            | Bergen (T)  | Further evaluation required  | No | Long term    | Town of Bergen | Bergen (T)  | USACOE                 | TBD | Info from Town Hwy Superintendent                              |
| 22  | Gainonne Farm at west to Leggo at east; poor drainage to Black Creek                               | Bergen (T)  | Further evaluation required  | No | Long term    | Town of Bergen | Bergen (T)  | None                   | TBD | Info from Town Hwy Superintendent                              |
| 23  | Sackett Road bridge in curves - poor drainage  | Bergen (T)  | Further evaluation required  | No | Long term    | Town of Bergen | Bergen (T)  | None                   | TBD | Info from Town Hwy Superintendent                              |
| 24  | Drainage area for Minie Creek needs cleaning; serves Town & Village                                | Bergen (V)  | Further evaluation required  | No | Long term    | Vg of Bergen   | Bergen (V)  | USACOE                 | TBD | Info from Marshall Krause, DPW Supv, 2004 Survey by G. Squires |
| 25  | Minie Creek culvert on Gates St. needs cleaning  | Bergen (V)  | Further evaluation required  | No | Long term    | Bergen (V)     | Bergen (V)  | USACOE                 | TBD | Info from Marshall Krause, DPW Supv, 2004 Survey by G. Squires |
| 26  | Minie Creek needs cleaning   | Bergen (V)  | Further evaluation required  | No | Intermediate | Bergen (V)     | Bergen (V)  | USACOE                 | TBD | Info from Marshall Krause, DPW Supv, 2004 Survey by G. Squires |

|    |   |             |   |    |              |                             |                             |        |   |  |
|----|---|-------------|---|----|--------------|-----------------------------|-----------------------------|--------|---|--|
| 27 | New possible dry ponds for housing development  | Bergen (V)  | Further evaluation required   | No | Undetermined | Bergen (V)                  | Bergen (V)                  | None   | TBD                                       | Info from Marshall Krause, DPW Supv, 2004 Survey by G. Squires |
| 28 | Drainage pond for Rochester & Munger Sts. Needs cleaning, privately owned   | Bergen (V)  | Further evaluation required   | No | Long term    | Private                     | Bergen (V)                  | USACOE | TBD                                       | Info from Marshall Krause, DPW Supv, 2004 Survey by G. Squires |
| 29 | Drainage problem at corner of Hunter St. & Church St.   | Bergen (V)  | Further evaluation required   | No | Intermediate | Bergen (V)                  | Bergen (V)                  | TBD    | TBD                                       | Info from Marshall Krause, DPW Supv, 2004 Survey by G. Squires |
| 30 | Black Cr culvert @ Paul Road  | Bethany (T) | Evaluate increasing culvert size to prevent back up of flood waters         | No | Intermediate | Bethany (T)                 | Bethany (T)                 | USACOE | \$300/culvert                             | Information from Town Hwy Supt, comm. To G. Squires, 2004      |
| 31 | Black Cr trib @ Jerico Road - sharp bend in creek causes debris accumulation, log jams. Road culvert cannot handle high flows | Bethany (T) | Monitor and remove debris and log jams as needed; evaluate upsizing culvert | No | Ongoing      | Bethany (T)                 | Bethany (T)                 | USACOE | \$5/LF                                    | Information from Town Hwy Supt, comm. To G. Squires, 2004      |
| 32 | Batavia-Bethany T.L. Road - Little Tonawanda Cr culvert floods frequently. Will not handle heavy rains                        | Bethany (T) | Evaluate increasing culvert size to prevent back up of flood waters         | No | Intermediate | Bethany (T) and Batavia (T) | Bethany (T) and Batavia (T) | USACOE | TBD                                       | Information from Town Hwy Supt, comm. To G. Squires, 2004      |
| 33 | Little Tonawanda Creek tributary @ Marsh Road - debris accumulates in culvert   | Bethany (T) | Monitor and remove debris as needed   | No | Intermediate | Bethany (T)                 | Bethany (T)                 | USACOE | Staff time to monitor; \$300 per cleanout | Information from Town Hwy Supt, comm. To G. Squires, 2004      |
| 34 | Little Tonawanda Cr tributary @ Silver Road - debris accumulates in culvert. Cannot handle high flows                         | Bethany (T) | Monitor and remove debris as needed   | No | Intermediate | Bethany (T)                 | Bethany (T)                 | USACOE | Staff time to monitor; \$300 per cleanout | Information from Town Hwy Supt, comm. To G. Squires, 2004      |

|     |   |             |   |     |              |                                    |                                |                            |   |   |
|-----|---|-------------|---|-----|--------------|------------------------------------|--------------------------------|----------------------------|---|---|
| 35  | Little Tonawanda Creek & Mill Road - debris accumulates in culvert. Cannot handle high flows  | Bethany (T) | Monitor and remove debris as needed   | No  | Intermediate | Bethany (T)                        | Bethany (T)                    | USACOE                     | Staff time to monitor; \$\$\$300 per cleanout | Information from Town Hwy Supt, comm. To G. Squires, 2004   |
| 68  | Molasses Road - secondary flooding  | Bethany (T) | Further evaluation required.  | No  | Long term    | Towns of Bethany and Alexander     | Towns of Bethany and Alexander | Unknown                    | TBD   | Source: 2004 SWCD Drainage Study  |
| 69  | Molasses Road north - secondary flooding  | Bethany (T) | Further evaluation required.  | No  | Long term    | Towns of Bethany and Alexander     | Towns of Bethany and Alexander | Unknown                    | TBD   | Source: 2004 SWCD Drainage Study  |
| 70  | West Bethany Road - secondary flooding  | Bethany (T) | Further evaluation required   | No  | Long term    | Towns of Bethany and Alexander     | Towns of Bethany and Alexander | Unknown                    | TBD   | Source: 2004 SWCD Drainage Study  |
| 124 | 4811 Linden Road, Zigrossi house. Structure has been repeatedly damaged by flooding along Little Tonawanda Creek. Residents must be evacuated frequently. | Bethany (T) | Acquire structure and provide relocation assistance to residents. Rezone to preclude residential re-use of this site. | Yes | Intermediate | Bethany (T), SEMO Grant            | Bethany (T)                    | FEMA, SEMO, Genesee County | 58000   | Source: 2003 Study - originally listed as Zigrossi House; supplemented with air photo interpretation of 2005 air photos. Estimated value of structure derived from 2006 Genesee County Tax Assessment data. |
| 178 | Mill Road flooding & erosion  | Bethany (T) | Evaluate stream channel for erosion and sediment control.   | No  | Long term    | Bethany (T)                        | Bethany (T)                    | TBD                        | TBD   | Source: 2003 Study  |
| 179 | Francis Road flooding & erosion   | Bethany (T) | Evaluate stream channel for erosion and sediment control.   | No  | Long term    | Bethany (T)                        | Bethany (T)                    | TBD                        | TBD   | Source: 2003 Study  |
| 180 | Gick Creek floods yards & field, Conway Road  | Bethany (T) | Evaluate stream channel for erosion and sediment control.   | No  | Long term    | Bethany (T)                        | Bethany (T)                    | TBD                        | TBD   | Source: 2003 Study  |
| 181 | Homes along Rt. 20 near Little Tonawanda Creek experience basement flooding.  | Bethany (T) | Include this area when Town flood maps are re-evaluated.  | No  | Intermediate | State of New York, Town of Bethany | Bethany (T)                    | FEMA, SEMO                 | TBD by bid process                            | Source: 2003 Study  |
| 182 | Little Tonawanda Creek channel debris accumulation, Mill-Linden Road area   | Bethany (T) | Institute monitoring and debris removal from culverts   | No  | Ongoing      | Bethany (T)                        | Bethany (T)                    | USACOE                     | \$300/culvert                                 | Source: 2003 Study  |
| 183 | Smith Road, erosion & flooding  | Bethany (T) | Review management of roadside ditches. Pinpoint frequent washout sites and reinforce                                  | No  | Ongoing      | Bethany (T)                        | Bethany (T)                    | None                       | \$200/check dam; other measures TBD           | Source: 2003 Study  |

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|-----|---|------------|--|----|--------------|------------|------------|------------------------|-------------------------------------|---|
| 8   | Rt. 77 Bridge, Corfu is flooded with 1-2 ft. of water from Murder Creek   | Corfu (V)  | Problem may be an undersized hydraulic opening. Town officials mentioned that channel is clogged with debris.  | No | Ongoing      | NYSDOT     | NYSDOT     | USACOE, NYSDEC         | TBD                                 | Source: 2004 SWCD Drainage Study and Vg officials |
| 10  | Lippold Road - great amount of ditch erosion because of fast water going downhill on west side of road.   | Darien (T) | Consider use of check dams or other means of slowing water velocity. Further evaluation required.  | No | Short term   | Darien (T) | Darien (T) | Unknown                | \$200/check dam; other measures TBD | Source: 2004 SWCD Drainage Study                  |
| 14  | McVane Road - house floods frequently on south side. 5th house east of Rt. 77 caused by swamp on southwest of that location. That goes to Rt. 77. Water sets still on State ROW | Darien (T) | Review plans for road improvements with NYSDOT. Determine feasibility of raising house elevation or potential for relocation/acquisition of structure. | No | Intermediate | NYSDOT     | Darien (T) | NYSDOT, Genesee County | TBD                                 | Source: 2004 SWCD Drainage Study                  |
| 15  | Erie Street - floods when a fast rain and quick thaw caused by plugged pipes under railroad and needs ditch cleaning north side of railroad property.                           | Darien (T) | Requires further evaluation. Consider sending a letter to the railroad requesting maintenance of tracks and culverts.                                  | No | Intermediate | Railroad   | Darien (T) | NYSDOT, Genesee County | TBD                                 | Source: 2004 SWCD Drainage Study                  |
| 16  | Town Line Road - ditch erosion and semi-annual pipe cleaning at Rt. 238 & Town Line Road caused by fast water.  | Darien (T) | Consider potential use of check dams or other means of slowing water velocity. Further evaluation required.  | No | Intermediate | Darien (T) | Darien (T) | None                   | \$200/check dam; other measures TBD | Source: 2004 SWCD Drainage Study                  |
| 185 | Clogged culverts, Rt. 20  | Darien (T) | Remove debris from culverts to promote flow  | No | Intermediate | NYSDOT     | NYSDOT     | USACOE, NYSDEC         | \$300/culvert                       | Source: 2003 Study and 2004 SWCD Drainage Study   |
| 186 | Shoulder erosion, Darien-Alexander T.L. Rd. & Old Attica Rd.  | Darien (T) | Review management of roadside ditches. Pinpoint frequent washout sites and reinforce   | No | Intermediate | Darien (T) | Darien (T) | None                   | \$200/check dam; other measures TBD | Source: 2003 Study and 2004 SWCD Drainage Study   |

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| 48 | Snyder Road & West Avenue  | Elba (T) | Further evaluation required.  | No  | Long term    | Elba (T)       | Elba (T)       | None           | TBD     | Source: 2004 SWCD Drainage Study  |
| 49 | Graham Road - flooding in roadside ditches   | Elba (T) | Further evaluation required.  | No  | Long term    | Elba (T)       | Elba (T)       | None           | TBD     | Source: 2004 SWCD Drainage Study  |
| 50 | Hundredmark Road - poor drainage and occasional flooding   | Elba (T) | Further evaluation required.  | No  | Long Term    | Elba (T)       | Elba (T)       | None           | TBD     | Source: 2004 SWCD Drainage Study  |
| 51 | House on west side of Pekin Road threatened by flooding. Resident reportedly unable to live in house.  | Elba (T) | House is not in mapped flood prone area. Consider remapping this part of the Town for flood hazard areas. Determine whether house is habitable. Consider possible relocation of house or floodproofing. | No  | Intermediate | Elba (T)       | Elba (T)       | SEMO/FEMA      | TBD     | Source: Elba Town Hwy Superintendent - interview, 3/15/2007   |
| 52 | Oak Orchard tributary from Drake Road to Church Road.  | Elba (T) | Channel needs clean out according to Town officials.  | No  | Intermediate | Elba (T)       | Elba (T)       | USACOE, NYSDEC | \$50/LF | Source: Elba Town Hwy Superintendent - interview, 3/15/2007   |
| 53 | Arnold Road - house on east side of road. Water backs up to back door. Culvert is below the house. Water has no way of reaching Oak Orchard Creek trib.  | Elba (T) | Evaluate feasibility of ditching around the back of the house and along property line to reach roadside ditch.  | No  | Intermediate | Elba (T)       | Elba (T)       | None           | \$50/LF | Source: Elba Town Hwy Superintendent - interview, 3/15/2007   |
| 54 | Whitney Mill Road bridge over Spring Creek. Hydraulic opening not large enough to permit flood flows to pass through. Bridge provides access to daycare facility, and is not wide enough for emergency vehicles. Emergency access needed for day care center operating on Whitney Mill Road. | Elba (T) | Propose this structure to be placed on the Regional Transportation Improvement Plan for pass-through funding. Seek funding to replace this structure.   | Yes | Intermediate | Genesee County | Genesee County | NYS DOT        | TBD     | Source: Elba Town Hwy Superintendent - interview, 3/15/2007. Town would like to get funding to repair this structure. |

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| 55 | Whitney Mill Road. Dam on tributary to Spring Creek causes flooding on private property, threatening a residence.  | Elba (T)       | Contact NYSDEC dam safety officials regarding potential need for safety inspection. Determine if this is a permitted structure.                          | No | Intermediate | Private owner                            | NYSDEC                    | NYSDEC         | Staff time  | Town officials have received numerous complaints about lack of maintenance on this dam. Dam is on private property. Can this structure be reported to NYSDEC for potential removal? |
| 56 | Norton Road near Elba/Batavia Town Line. Fence rows have been taken out, causing silt to be washed into field ditches. Culverts cannot handle volume of water. Water backs up almost to Town Line. | Elba (T)       | Problem affects tributary of Spring Creek. Town would like to increase the size of the culvert under Norton Road and clean out the agricultural ditches. | No | Intermediate | Private owner                            | Elba (T)                  | Batavia (T)    | Staff time & equipment cost                             | Source: Elba Town Hwy Supt.   |
| 67 | Tributary of Oatka Creek needs debris removed and channel restoration  | Le Roy (T + V) | Further evaluation required.   | No | Intermediate | Town and Village of LeRoy                | Town and Village of LeRoy | USACOE, NYSDEC | \$50/LF + permitting                                    | Source: 2004 SWCD Drainage Study  |
| 63 | 24 in. CMP on Munson St. clogged   | Le Roy (T)     | Remove excess debris from culvert  | No | Intermediate | LeRoy (T)                                | LeRoy (T)                 | USACOE, NYSDEC | \$300/culvert + permitting                              | Source: 2004 SWCD Drainage Study  |
| 64 | Plugged culvert on old Buffalo Rochester and Pittsburgh railroad ROW   | Le Roy (T)     | Consult with property owner regarding responsibility for cleaning culvert.   | No | Intermediate | Buffalo, Rochester & Pittsburgh Railroad | Private owner             | USACOE, NYSDEC | \$300/culvert + permitting                              | Source: 2004 SWCD Drainage Study  |
| 65 | Plugged culvert on former railroad ROW now owned by National Grid  | Le Roy (T)     | Consult with property owner regarding responsibility for cleaning culvert.   | No | Intermediate | National Grid                            | National Grid             | USACOE, NYSDEC | Staff time for consultation; \$300/culvert + permitting | Source: 2004 SWCD Drainage Study  |
| 66 | 4' x 8' concrete box culvert too small to carry flows from Oatka tributary   | Le Roy (T)     | Refer to NYSDOT as maintenance issue.  | No | Intermediate | NYSDOT                                   | NYSDOT                    | USACOE, NYSDEC | Staff time for consultation; \$300/culvert + permitting | Source: 2004 SWCD Drainage Study  |
| 78 | Gulf Road culvert at Mud Creek - frequent washouts   | Le Roy (T)     | Further evaluation required  | No | Intermediate | LeRoy (T)                                | LeRoy (T)                 | USACOE, NYSDEC | TBD   | Source: 2004 SWCD Drainage Study  |

|        |  |            |  |    |              |                           |                               |                               |                    |   |
|--------|--|------------|--|----|--------------|---------------------------|-------------------------------|-------------------------------|--------------------|---|
| 79     | Flooding on Oatka Trail  | Le Roy (T) | Raise profile of roadway above base flood elevation  | No | Intermediate | LeRoy (T)                 | LeRoy (T)                     | NYS DOT, Genesee County       | TBD                | Source: 2004 SWCD Drainage Study  |
| 505.01 | Greenhouse in floodplain   | Le Roy (T) | Consider acquiring structure and relocating greenhouse operation out of floodplain.  | No | Long term    | LeRoy (T), FEMA, SEMO     | LeRoy (T)                     | FEMA, SEMO                    | TBD                | Source: 2003 Study.   |
| 509    | Community officials are concerned that the airport is not in the officially mapped floodplain. They note that the airport is flooded. Recent runway improvements were made and studies indicated that the flooding would not be made worse. Town officials disagree and think this area should be re-mapped. | Le Roy (T) | (1) Include this area in any flood hazard remapping efforts. (2) Investigate FAA grant fund sources to determine if funding can be secured for airport drainage improvements.  | No | Long term    | FEMA, SEMO, FAA           | LeRoy (T)                     | FEMA, SEMO, FAA               | TBD by bid process | Source: 2003 Study  |
| 516    | LeRoy Water Filtration Plant   | Le Roy (T) | It was reported that this facility has been taken out of service and that the Village of LeRoy now obtains its potable water from other sources.   | No | Long term    | MCWA                      | Monroe County Water Authority | NYSDEC, NYS Health Department | TBD                | Source: 2003 Study. According to F. Oltremari, GC Planner, this facility was purchased by MCWA and is now being used to produce water for the MCWA system. Interview 4/18/2007. |
| 519    | Road drainage between Keeney and Quinlan Roads   | Le Roy (T) | This area requires a more comprehensive solution. Town and Village officials should work with owners of railroads to develop a plan to clean out culverts. Further evaluation of the regional stormwater detention idea should be completed. | No | Immediate    | Town and Village of LeRoy | LeRoy (T)                     | NYSDEC, NYS Health Department | TBD                | Source: 2003 Study.   |

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| 522      | Oatka Trail-Wilcox Road area flooding  | Le Roy (T)     | Consider relocation assistance for residences affected by repeated flooding.   | Yes | Intermediate | SEMO, FEMA Grants                     | LeRoy (T)                 | Genesee County, FEMA, SEMO  | TBD                   | 3-5 houses may be located close enough to stream channel to be affected by flooding. Need specifics on affected residences. |
| Unmapped | Surcharging in "State Drain" storm sewer on Rt. 19 blows the cover under high flow conditions and floods back yards of adjacent homes. | Le Roy (T)     | Requires further investigation by NYS Dept. of Transportation because this is their facility.  | No  | Intermediate | NYSDOT                                | NYSDOT                    | Vg of LeRoy                 | TBD                   | Need more location data on this facility  |
| 517      | Com. development & flooding issues in NW sector of village & adj town, incl RR culvert problems  | Le Roy (V & T) | Consider remapping this portion of the Town and Village of LeRoy when flood maps are re-done.  | Yes | Intermediate | SEMO, FEMA, Town and Village of LeRoy | Town and Village of LeRoy | SEMO, FEMA                  | TBD                   | Source: 2003 Study  |
| 513      | Main St. Dam structural issues   | Le Roy (V)     | Request evaluation by NYS Department of Transportation for structural integrity.   | No  | Long term    | NYSDOT                                | NYSDOT                    | Genesee County, Vg of LeRoy | Staff time            | Source: 2003 Study  |
| 514      | Wolcott St. east bank erosion, potential exposure of sanitary sewer  | Le Roy (V)     | Village has reinforced this area with riprap. Consider protecting site with additional bank plantings.   | No  | Immediate    | LeRoy (V)                             | LeRoy (V)                 | NYSDEC, USACOE              | In current vg. Budget | Source: 2003 Study  |
| 520      | Pro-Fac Plant site floods regularly.   | Le Roy (V)     | This plant site should be considered for storm water retrofitting. Further evaluation is required.   | No  | Long term    | Private owner                         | LeRoy (V)                 | NYSDEC, USACOE              | TBD                   | Source: 2003 Study  |
| 524      | Munson St. Dam structural issues   | Le Roy (V)     | Complete a feasibility study to determine whether this dam should be repaired or removed. It currently has many leaks and may fail under high flow conditions.                   | No  | Long term    | LeRoy (V)                             | LeRoy (V)                 | NYSDEC, USACOE              | TBD                   | Source: 2003 Study  |
| *515     | LeRoy Sewage Treatment Plant located in flood prone area.  | Le Roy (V)     | Consider a feasibility study to determine which facilities at the plant are critical for operation and require flood proofing to comply with flood plain development regulations | Yes | Intermediate | LeRoy (V), SEMO Grant                 | LeRoy (V)                 | NYSDEC, SEMO, FEMA          | TBD                   | Source: 2003 Study  |

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| 85 | Narrow flood zone between Hibbard Road and Eastern Town Line is not wide enough. Flood area is more extensive than is shown on FIRM maps. | Le Roy(T)    | Re-evaluate width of flood hazard area when the Town is remapped.   | No | Long term    | State of New York, Town of LeRoy      | LeRoy(T)     | SEMO, FEMA             | TBD by bid process          | Source: 2004 SWCD Drainage Study                  |
| 1  | Hutton Road Bridge #1 - channel condition of Oak Orchard tributary on east side is poor   | Oakfield (T) | Obtain permission from property owners to clean channel of debris as needed.  | No | Intermediate | Oakfield (T)                          | Oakfield (T) | NYSDEC, USACOE         | \$50/LF                     | Info from Alan Dennis, Town of Oakfield Hwy Supt. |
| 2  | Hutton Road Bridge #2 - old railroad crossing - road side ditches need touchup  | Oakfield (T) | Handle with routine highway maintenance.  | No | Intermediate | Oakfield (T)                          | Oakfield (T) | None                   | Staff time & equipment cost | Info from Alan Dennis, Town of Oakfield Hwy Supt. |
| 3  | Duck Pond Road Bridge #3 - East of Gypsum Co - bridge in poor condition - rotted out, channel flow good;                                  | Oakfield (T) | Propose this structure to be placed on the Regional Transportation Improvement Plan for pass-through funding. Seek funding to replace this structure. | No | Intermediate | Oakfield (T), STIP, Pass thru funding | Oakfield (T) | NYSDEC, USACOE, NYSDOT | TBD                         | Info from Alan Dennis, Town of Oakfield Hwy Supt. |
| 4  | Flooding on Albion Road south of Oak Orchard Creek  | Oakfield (T) | Further evaluation required. Problem may be caused by storm debris in channel causing backups of flood water.   | No | Intermediate | Oakfield (T)                          | Oakfield (T) | NYSDEC, USACOE         | \$50/LF + permitting        | Source: 2004 SWCD Drainage Study                  |
| 5  | Flooding on Maltby Road between Albion Road and Fox Road  | Oakfield (T) | Problem requires further evaluation, but may be due in part to inadequate maintenance of agricultural drainage ditches downstream of culverts.        | No | Intermediate | Oakfield (T) and private owners       | Oakfield (T) | NYSDEC, USACOE         | \$50/LF + permitting        | Source: 2004 SWCD Drainage Study                  |
| 6  | Fisher Road Bridge #6 north of Rt. 262 - channel needs cleaning   | Oakfield (T) | Clean channel as needed.; obtain all necessary permits  | No | Intermediate | Oakfield (T)                          | Oakfield (T) | NYSDEC, USACOE         | \$50/LF + permitting        | Info from Alan Dennis, Town of Oakfield Hwy Supt. |
| 7  | Fox Road - Bridge 7 - poor flow on west side  | Oakfield (T) | Work with property owners to secure access channels for cleaning; obtain necessary permits  | No | Intermediate | Oakfield (T)                          | Oakfield (T) | NYSDEC, USACOE         | \$50/LF + permitting        | Info from Alan Dennis, Town of Oakfield Hwy Supt. |

|          |   |              |   |    |              |              |              |                |  |   |
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| 9        | Fisher Road - Bridge 9 north of Lockport Road - channel totally blocked; Bridge 10 - cannot locate due to flooding; numerous culverts blocked                 | Oakfield (T) | Work with property owners to get permission to access channels for cleaning; remove culvert plugs;  | No | Intermediate | Oakfield (T) | Oakfield (T) | NYSDEC, USACOE | \$50/LF for channel cleaning; \$300/culvert + permitting | Info from Alan Dennis, Town of Oakfield Hwy Supt. |
| 11       | Fisher Road Bridges 10 - cannot locate due to flooding; Bridge 11, channel blocked  | Oakfield (T) | Further field investigation required to locate culvert and determine remedial action.   | No | Intermediate | Oakfield (T) | Oakfield (T) | NYSDEC, USACOE | \$50/LF for channel cleaning; \$300/culvert + permitting | Source: 2004 SWCD Drainage Study                  |
| 13       | Flooding on Crane Road at Genesee/Orleans County Line   | Oakfield (T) | Channel flow plugged.   | No | Intermediate | Oakfield (T) | Oakfield (T) | NYSDEC, USACOE | \$50/LF for channel cleaning; \$300/culvert + permitting | Source: 2004 SWCD Drainage Study                  |
| 13       | East Shelby Road - Bridge 13 - south of Crane Road - channel flow poor; culvert 2852 - flow plugged; culvert 2748 - flow plugged; culvert 2615 - partial plug | Oakfield (T) | Work with property owners to get permission to access channels for cleaning; obtain necessary permits; remove plugs from culverts         | No | Intermediate | Oakfield (T) | Oakfield (T) | NYSDEC, USACOE | \$50/LF for channel cleaning; \$300/culvert + permitting | Info from Alan Dennis, Town of Oakfield Hwy Supt. |
| 94       | Bliss Road - Culvert 6704 - flow plugged; pipe north of Lewiston Road - partial plug  | Oakfield (T) | Remove plugs from culverts as needed  | No |              |              | Oakfield (T) | NYSDEC, USACOE | \$50/LF for channel cleaning; \$300/culvert + permitting | Info from Alan Dennis, Town of Oakfield Hwy Supt. |
| 100      | Flooding on Fisher Road north of Maltby Road due to inadequate agricultural ditch maintenance downstream of culverts.   | Oakfield (T) | Work with local property owners to secure access to plugged channels. Clean and remove culvert plugs as needed. Obtain necessary permits. | No | Intermediate | Oakfield (T) | Oakfield (T) | NYSDEC, USACOE |  | Source: 2004 SWCD Drainage Study                  |
| Townwide | Lack of maintenance in agricultural drainage ditches  | Oakfield (T) | Consider town-wide drainage district to maintain agricultural ditches.  | No |              |              | Oakfield (T) | NYSDEC, USACOE |  | Info from Alan Dennis, Town of Oakfield Hwy Supt. |

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|  | Debris from October 2006 storm clogs drainage ditches and tributaries of Oak Orchard Creek. Problem is particularly acute north of Fisher Road.                   | Oakfield (T) | Remove downed timber in stream channels.   | No |           |              | Oakfield (T) | NYSDEC, USACOE |  |  |
|  | East Shelby Road floods due to new dike by DEC in wildlife refuge.  | Oakfield (T) | Request DEC to review water level management policy to reduce potential for flooding on East Shelby Road   | No | Long term | NYSDEC       | NYSDEC       | NYSDEC, USACOE | Staff time and equipment                             | Further evaluation needed.   |
|  | General problem of stream channel maintenance in Oak Orchard Creek Wildlife Refuge  | Oakfield (T) | Town representative states that NYSDEC is not maintaining drainage ditches adequately in the refuge. This causes water to back up onto private lands, affecting agricultural fields. | No | Long term | NYSDEC       | NYSDEC       | NYSDEC, USACOE | Staff time & equipment cost                          | Source: Alan Dennis, Town of Oakfield Hwy Supt.                              |
|  | South Pearl St. Road - Culvert 3197 - partial plug noted. Road side ditches - west side needs cleaning  | Oakfield (T) | Clear plug from culvert, clean road side ditches as needed.  | No | Long term | Oakfield(T)  | Oakfield (T) | NYSDEC, USACOE | \$300/culvert  | Info from Alan Dennis, Town of Oakfield Hwy Supt.                            |
|  | Town Line Road - Culvert 3173 - partial plug; Culvert 2942 - partial plug; Culvert 2751 - channel flow poor on both sides of road; road side ditches need touchup | Oakfield (T) | Clear plugs from culverts; determine if channel can be cleaned; obtain landowner permission and permits as needed to clean channels  | No | Long term | Oakfield (T) | Oakfield (T) | NYSDEC, USACOE | \$300/culvert  | Info from Alan Dennis, Town of Oakfield Hwy Supt.                            |
|  | Orchard Park Road - Culvert 3061 - pipe unknown, plugged  | Oakfield (T) | Replace or repair culvert as needed, restore free-flowing condition in channel   | No | Long term | Oakfield (T) | Oakfield (T) | NYSDEC, USACOE | \$50/LF channel cleaning; \$300/culvert + permitting | Info from Alan Dennis, Town of Oakfield Hwy Supt. Need better location data  |
|  | Fox Road - Culvert 6916 - channel flow poor on both sides   | Oakfield (T) | Work with property owners to get permission to access channels for cleaning; obtain necessary permits  | No | Long term | Oakfield (T) | Oakfield (T) | NYSDEC, USACOE | \$50/LF channel cleaning; \$300/culvert + permitting | Info from Alan Dennis, Town of Oakfield Hwy Supt. Need better location data. |

|        |   |              |  |     |              |                                     |              |                 |   |  |
|--------|---|--------------|--|-----|--------------|-------------------------------------|--------------|-----------------|---|--|
|        | East Shelby Road Bridge 12- channel flow plugged - needs cleaning | Oakfield (T) | Work with property owners to get permission to access channels for cleaning; obtain necessary permits  | No  | Long term    | Oakfield (T)                        | Oakfield (T) | NYSDEC, USACOE  | \$50/LF channel cleaning, plus permitting | Info from Alan Dennis, Town of Oakfield Hwy Supt. Need better location data. |
| 511    | Houses on Pavilion Center Rd by Rochester Southern RR             | Pavilion (T) | Identify more specifically which homes are affected. Determine feasibility of retrofitting and/or floodproofing.   | No  | Long term    | Pavilion (T)                        | Pavilion (T) | Genesee County, | TBD                                       | Source: 2003 Study   |
| 561    | Buildings along channel in hamlet of Pavilion, poss. re-map issue | Pavilion (T) | Channel relocation recommended to avoid continued flood damage to buildings.   | No  | Long term    | Pavilion (T)                        | Pavilion (T) | NYSDEC, USACOE  | TBD                                       | Source: 2003 Study   |
| 562    | Clogged culverts, Rt. 19 south of Pavilion hamlet                 | Pavilion (T) | Notify NYSDOT when culverts require maintenance.   | No  | Ongoing      | Pavilion (T)                        | Pavilion (T) | NYSDEC, USACOE  | \$300/culvert                             | Source: 2003 Study   |
| 562.01 | Clogged railroad culverts, south of hamlet                        | Pavilion (T) | Town officials should work directly with railroad owners to clean culverts. If owners are unwilling to clean culverts, then charge for this service on tax assessment.   | No  | Long term    | Private owner                       | Pavilion (T) | NYSDEC, USACOE  | \$300/culvert                             | Source: 2003 Study   |
| 563    | Pavilion Town facilities (Town hall, hwy garage, library)         | Pavilion (T) | This area requires a more comprehensive solution. (1) Consider raising affected key structures above base flood elevation or relocating to an area outside the flood prone area. (2) Relocate vital records to site outside of flood prone area. (3) Install emergency flood warning system. | Yes | Intermediate | Pavilion (T), SEMO Mitigation Grant | Pavilion (T) | FEMA, SEMO      | TBD                                       | Source: 2003 Study   |
| 566    | Hansen's Concrete Plant & HQ                                      | Pavilion (T) | Consider relocation of plant headquarters and vital records to location outside of flood prone area.   | No  | Intermediate | Private owner, FEMA, SEMO           | Pavilion (T) | FEMA, SEMO      | TBD                                       | Source: 2003 Study   |

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|-----|---|--------------|--|----|--------------|---------------------------------|------------------|--|-----|----------------------------------|
| 567 | Bank erosion, Oatka Creek channel between Rt. 20 & Rt. 63, mostly impacting farmland                | Pavilion (T) | Evaluate this reach for bank stabilization and erosion protection.   | No | Intermediate | Private owner, Genesee Co. SWCD | Genesee Co. SWCD | NYSDEC, USACOE                               | TBD | Source: 2003 Study               |
| 59  | Murder Creek tributaries at Ganson Road - flooding.   | Pembroke (T) | Further evaluation required. Problem may be caused by storm debris in channel causing backups of flood water.  | No | Intermediate | Genesee Co. SWCD                | Genesee Co. SWCD | NYSDEC, USACOE                               | TBD | Source: 2004 SWCD Drainage Study |
| 60  | Cohocton Road tributary east - flooding   | Pembroke (T) | Further evaluation required. Problem may be caused by storm debris in channel causing backups of flood water.  | No | Intermediate | Genesee Co. SWCD                | Genesee Co. SWCD | NYSDEC, USACOE                               | TBD | Source: 2004 SWCD Drainage Study |
| 61  | Cohocton Road West Murder Cr trib - flooding  | Pembroke (T) | Further evaluation needed  | No | Intermediate | Genesee Co. SWCD                | Genesee Co. SWCD | NYSDEC, USACOE                               | TBD | Source: 2004 SWCD Drainage Study |
| 62  | Charlene Papoi residence, 481 Scribner Road - property is flooding due to log jams in Murder Creek. | Pembroke (T) | Evaluate log jams and determine if removal is needed.  | No | Intermediate | Genesee Co. SWCD                | Genesee Co. SWCD | Genesee Co, Town of Pembroke, USACOE, NYSDEC | TBD | Source: 2004 SWCD Drainage Study |
| 62  | Scribner Road - problem may be same as Charlene Papoi property                                      | Pembroke (T) | See Charlene Papoi property  | No | Intermediate | Genesee Co. SWCD                | Genesee Co. SWCD | Genesee Co, Town of Pembroke, USACOE, NYSDEC | TBD | Source: 2004 SWCD Drainage Study |
| 81  | Ellinwood Road flooding from Murder Creek   | Pembroke (T) | This problem was mentioned in an interview conducted with Town officials in 2003, but was not studied in detail as part of the Tonawanda-Oatka Creek Flood Hazard Mitigation Study | No | Intermediate | Genesee Co. SWCD                | Genesee Co. SWCD | Genesee Co, Town of Pembroke, USACOE, NYSDEC | TBD | Source: 2004 SWCD Drainage Study |
| 81  | Colby and Stoney Lonesome Roads flooding from Murder Creek  | Pembroke (T) | Further evaluation required. Problem may be caused by storm debris in channel causing backups of flood water.  | No | Long term    | Genesee Co. SWCD                | Genesee Co. SWCD | Genesee Co, Town of Pembroke, USACOE, NYSDEC | TBD | Source: 2004 SWCD Drainage Study |

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|-----|---|--------------|---|----|--------------|---|--------------------------|----------------------|-----|------------------------------------|
| 83  | Private sewage treatment plant for Econolodge @ Darien Lake turnoff   | Pembroke (T) | Site is located in potential flood zone for Murder Creek  | No | Intermediate | Private                                 | Genesee Co. Health Dept. | NYSDOH, NYSDOT       | TBD | Source: 2004 SWCD Drainage Study   |
| 84  | Private sewage treatment plant for Flying J located in flood prone area   | Pembroke (T) | Site is located in potential flood zone for Murder Creek  | No | Intermediate | Private, SEMO Grant                     | Genesee Co. Health Dept. | NYSDOH, NYSDOT       | TBD | Source: 2004 SWCD Drainage Study   |
| 101 | Private sewage treatment plant for TA truck stop  | Pembroke (T) | Site is located in potential flood zone for Murder Creek  | No | Intermediate | Private                                 | Genesee Co. Health Dept. |                      | TBD | Source: 2004 SWCD Drainage Survey. |
| 115 | Old dam east of North Pembroke Road is breached. Flow in TC is directed against north wingwall and abutment of North Pembroke Road.   | Pembroke (T) | Structure is located < 200 ft. east of N. Pembroke Road. Develop plan with NYSDOT to remove this structure. | No | Intermediate | Genesee County, NYSDEC                  | Genesee County           | NYSDEC, USACOE       | TBD | Source: 2003 Study                 |
| 117 | Indian Falls hamlet, residences close to creek, poss. sewer issues  | Pembroke (T) | Further study is needed to identify which residences may be affected by flooding.                           | No | Intermediate | Genesee County Health Dept., SEMO Grant | Genesee Co. Health Dept. | SEMO, FEMA           | TBD | Source: 2003 Study                 |
| 176 | Phelps Road, field flooding   | Pembroke (T) | Further information needed.   | No | Intermediate | Genesee Co. SWCD, Private owners        | Genesee Co. SWCD         | NYSDEC, USACOE       | TBD | Source: 2003 Study                 |
| 177 | Pratt Road, road flooding   | Pembroke (T) | Further information needed.   | No | Intermediate | Genesee Co. SWCD, Private owners        | Genesee Co. SWCD         | NYSDEC, USACOE       | TBD | Source: 2003 Study                 |
| 114 | East Pembroke Dam causes water to back up behind it. Backwater pond from this dam is used by farmers for irrigation. No ownership identified for structure. Structure is falling apart. | Pembroke(T)  | Identify water users and develop plan to repair structure.  | No | Intermediate | NYSDEC                                  | Town of Pembroke         | Genesee County, SWCD | TBD | Source: 2003 Study                 |