

FINAL

Town and Village of Laurens

All Hazards Mitigation Plan



Approved January 31, 2008

Prepared by:
The Town and Village of Laurens Hazard Mitigation Committee
And
The Otsego County Planning Department
197 Main Street Cooperstown, NY 13326

This hazards mitigation plan encompasses the Town and Village of Laurens, New York. This plan was developed through coordination with the Otsego County Planning Department and was funded, in part, by a Pre-Disaster Mitigation program grant from the New York State Emergency Management Office and Federal Emergency Management Agency.

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SECTION 1 – EXECUTIVE SUMMARY

The Town and Village of Laurens *All Hazards Mitigation Plan* includes resources and information to assist public and private sectors to reduce the losses from future hazard events. This plan is not a manual of what to do if a disaster occurs. Instead, it concentrates on actions that can be implemented prior to disaster events in order to reduce the damage to property and potential loss of life. The plan includes an assessment of the Town's risk and vulnerability, a strategy for minimizing those risks (goals and objectives), and an action plan that will be implemented to achieve the objectives.

This plan is intended to fulfill the planning requirements for state and federal assistance programs. It will enable the Town and Village to apply for future hazards mitigation grants that will assist with implementation of the proposed projects identified in this plan.

BACKGROUND

Section 2 of this plan provides background material about the Town and Village of Laurens and previous efforts to mitigate hazards.

PLANNING PROCESS

The Town and Village of Laurens officially began the development of this multi-jurisdictional all-hazards mitigation plan with an August 9, 2004 meeting held at the Laurens Town hall in the Town of Laurens, New York. The purpose of this meeting was to introduce the mitigation concept, describe past efforts in the Town and Village and to get all possible participants at the same point for the multi-jurisdictional planning process. Key players from several organizations in the County were invited. The meeting was well attended with 10 people representing the County of Otsego, Laurens Town Board, Laurens Village Board, Laurens Town Clerks Office, New York State Fire and Building Code Office, as well as the Town and Village Highway Departments.

A series of meetings were held to gather information and recommendations for this hazards mitigation plan. Staff support was provided by the Otsego County Planning Department. In addition to the information and recommendations assembled at the planning meetings, numerous agencies, organizations, and members of the public were contacted for additional input.

RISK ASSESSMENT

The recommendations in the Town and Village of Laurens Hazards Mitigation Plan are based on an assessment of the community's vulnerability to 23 of the 32 hazards identified in the New York State Emergency Management Office HAZNY Program. The reasons for omission of certain hazards are explained in Section 4 – Risk Assessment. The priority rankings were prepared based on the scope, frequency, impact, onset and duration of each hazard considered (using the HAZNY interactive spreadsheet program).

Mitigation Strategy

The overall purpose of the Town and Village of Laurens All Hazards Mitigation Plan is to protect life and property from natural and human-caused hazards.

The proposed mitigation strategy is represented by the following long-range goals, which encompass the *highest* ranked hazards for the Town and Village of Laurens. The Town and Village of Laurens All Hazards Mitigation Plan identifies specific objectives for achieving each goal.

Multi-Hazards Mitigation Goals

- Continue ongoing efforts and increase public awareness about hazards
- Provide emergency services in a timely and effective manner
- Maintain the viability of all critical facilities and operations
- Maintain support (political and private sector) for hazards mitigation and emergency response

Utility Failure Goals

- Raise public awareness about power failure, and what to do in the event of power loss
- Reduce possibility/impact of utility failure
- Provide emergency services to the public

Severe Weather Goals

(Severe Storm, Severe Winter Storm, Ice Storm, Tornado, Extreme Temperatures)

- Minimize damage from trees to utilities, structures, and other utilities
- Build and maintain structures to withstand high winds and heavy snow
- Reopen transportation routes as quickly as possible following a severe weather event

Flood Goals

- Raise public awareness about flood hazards, flood safety, and flood damage protection measures.
- Minimize stream bank erosion and improve water quality
- Decrease flooding/ice jam impact on roads with repetitive events
- Minimize the potential for obstruction of flow by maintaining streams, drainage ways, and drainage structures
- Mitigate flood risks for existing development

Action Plan

The Town and Village of Laurens All Hazards Mitigation Plan recommends implementation of the following actions over the next several years.

Multi-Hazards Mitigation Actions

Public Awareness

- Improve educational programs about hazards and family planning, emergency supplies, evacuation procedures, transportation safety and hazards mitigation.
- Encourage local officials' participation in hazards related training offered at County, State, and Federal levels.
- Provide municipal officials with periodic training and responsibilities during hazards events.

Emergency Services

- Improve/maintain communication among highway departments to enable coordinated maintenance of emergency routes.
- Improve dissemination of emergency warnings and weather information to residents, businesses, and institutions.

Critical Facilities

- Periodically review and update the list of critical facilities serving the community.
- Develop and implement strategies to mitigate risks to critical facilities.

Support

- Invite elected municipal officials to meetings of the Town and Village of Laurens Hazard Mitigation Committee to guide implementation of this plan and revision of the plan.
- Maintain and expand public/private sector coordination through organizations that are actively involved in hazards reduction activities
- Encourage public/private sector organizations (tourist facilities) to prioritize and implement hazards mitigation actions.

Utility Failure Mitigation Action

Public Awareness

- Develop a pamphlet describing the problems associated with power loss, and what can be done to alleviate these problems.

Reduce Possibility/Impact of Failure

- Explore means to help offset costs to obtain and maintain generators for schools, commercial businesses, and agricultural industry.
- Recommend, encourage, or require underground utilities in new developments through land use regulations. Encourage utility companies to use underground construction methods if feasible.
- Create a clear path for electric lines by trimming back trees 20 feet on both sides of power lines.

Provide Emergency Services to the Public

- Develop a power failure plan that will provide essentials (food, water, medical supplies) to residents without power.

Severe Weather Actions

Minimize Damage from Trees

- Maintain trees along municipal right-of-ways.
- Support/encourage utility companies to maintain trees near telephone and power lines
- Locate/create educational information about maintenance of trees adjacent to structures
- Explore providing brush pickup services and/or designated drop off locations to encourage tree maintenance and to discourage improper disposal of yard debris in drainage ways.
- Recommend, encourage, or require underground utilities in new developments through land use regulations. Encourage utility companies to use underground construction methods if feasible.

Buildings Are Able to Withstand High Winds and Snow

- Provide annual training for code enforcement officers in order to effectively enforce the structural standards in the International Building Code.
- Identify vulnerabilities for owners of older buildings that may not conform to the structural standards in the International Building Code

Transportation Routes are Reopened Quickly

- Improve highway departments' monitoring of weather conditions and forecasts to enable timely response to snow, ice, and high water conditions by the
- Review and revise highway departments' plowing schedules and hazardous weather response procedures to minimize time required to restore safe roadways
- Provide emergency service transportation during inclement weather through highway departments and emergency service providers

Flood Mitigation Actions

Public Awareness

- Disseminate and improve flood informational packets.
- Increase flood awareness locally by educating property owners within the floodplains
- Educate property owners adjacent to streams about proper stream maintenance.

Minimize Erosion and Improve Water Quality

- Study, develop, and implement projects for stabilizing stream channels in locations where erosion threatens development of agricultural resources.
- Periodically check water for contaminants and other foreign material.

Decrease Flooding/Ice Jam Impact on Roads

- Increase funding to mitigate damage to flood prone areas

Minimize Obstruction of Flow

- Reduce the potential for flooding caused by debris through routine inspection and maintenance of streams, roadside ditches, and drainage ways
- Develop and implement a strategy for maintenance of privately owned storm water drainage systems and secondary stream channels

Mitigate Flood Risks for Existing Development

- Evaluate opportunities to alleviate flooding problems by retaining water upstream through wetland creation/retention structures during high flow periods (and implement as appropriate)
- Develop and implement a strategy for replacing undersized bridges and culverts on public road ways and on private property

Plan Maintenance

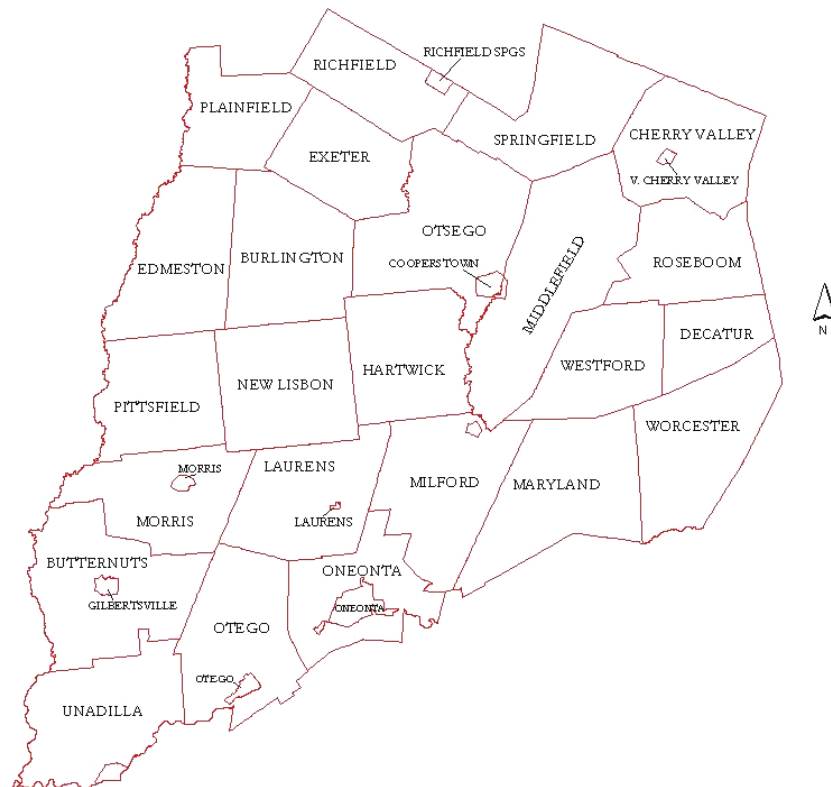
The Town and Village of Laurens All Hazards Mitigation Plan is an active document that will be periodically reviewed, updated, and revised. Municipal officials, emergency response personnel, agency staff, and the public will be involved in this on-going planning process.

SECTION 2 – BACKGROUND

The **Town of Laurens** is located southwest of the center of the county. It has two hamlets, the Hamlet of West Laurens and the Hamlet of Mt. Vision.

The **Village of Laurens** is in the central eastern portion of the town.

In 2000, the population in the town was 2,402 which is an increase of 53 people from 1990, the population in the village was 277 which is a decrease of 16 people from 1990



LAND: The Town of Laurens is 43.3 square miles and the Village of Laurens is 0.11 square miles. The topographic quadrangle location is divided between three areas: Gilbertsville, Laurens and Franklin. The area is very picturesque with an assortment of soils, vegetation, and geological materials.

FLOOD PLAIN: The Flood Plain areas of Laurens occur along Otego Creek, Wharton Brook, Pool Brook, Lake Brook, Harrison Creek and Cooper Creek and many smaller tributaries and seasonal streams.

CLIMATE: The climate of Laurens is classified as continental-humid, with cold winters and mild summers with precipitation well distributed throughout the year. The result of this climate is an abundance of flora and fauna throughout the region and a wealth of

water resources. The average annual temperature is 45 degrees. Temperatures in January are an average of 11 degrees while temperatures in July are an average of 81 degrees. Annual precipitation averages 46.81 inches. Annual snowfall averages 81 inches, although recent years have seen much less than this. The sun shines an average of 50% of the daylight hours. The climate defines a somewhat limited growing season for field crops, due to late spring and early fall frosts. The growing season averages 120 days.

POLITICAL GEOGRAPHY: Laurens has one village which has an pizza parlor and a small breakfast shop, but, as most of the towns in the county, it depends predominantly upon the multiple shopping centers of Oneonta. The village harbors a large population in its 0.11 square miles with a density of 2518.18. The town encompasses 43.3 square miles and has a population density of 55.4.

TRANSPORTATION: There are 98.7 miles of roads within the Town and Village (4.3 village miles) of Laurens maintained by the State of New York, Otsego County, the Town of Laurens, or private landowners. The Town of Laurens is responsible for the vast majority of the roads within the Town limits (50.2 miles, of which 3.6 miles are seasonal) while Otsego County maintains slightly less than 23 miles of roadways and the State maintains 14 miles of road. There are approximately 5 miles of private roads within the Town and Village.

PEOPLE: The 2000 census revealed that almost 42% of the Town’s population (including the village) is between the ages of 25 and 54 with a median age of 39.1 years. It also revealed that nearly 17% of the population is at or above the retirement age of 62.

EMPLOYMENT:

<u>Occupations: TOWN</u>	<u>Number</u>	<u>Percent</u>
Management, professional and related....	400	31.6
Service....	255	20.2
Sales & office....	270	21.4
Farming, fish & forestry....	27	2.1
Construction, extraction & maintenance....	128	10.1
Production, transportation & moving....	184	14.6

<u>Occupations: VILLAGE</u>	<u>Number</u>	<u>Percent</u>
Management, professional and related....	24	20.7
Service....	28	24.1
Sales & office....	35	30.2
Farming, fish & forestry....	2	1.7
Construction, extraction & maintenance....	8	6.9
Production, transportation & moving....	19	16.4

ECONOMY: In 1999, the median household income in the Town of Laurens was \$36,324; the median household income for the village was \$27,125. The median for

Otsego County is \$33,444. The Village of Laurens has the lowest household income in the county, which is what qualified it for an Empire Zone designation several years ago.

Like many small communities, Laurens does not host a wide variety of centrally located businesses. A recent trend has been the increase in the number of home based businesses in the area. Possibly due to the current economy, many residents have decided to establish small, home based businesses rather than the traditional “storefront” establishments in order to reduce overhead as well as to take advantage of recent federal and state tax breaks.

AGRICULTURE: Agriculture in the Town of Laurens at one time played a vital role in the economy; today it is less than 2% of the population’s occupation. According to current tax information active agricultural use acreage (dairy, field crops, cattle/calves/hogs, sheep/wool, and nursery/greenhouse) is as follows:

Village	0 acres
Town	13,159.38 acres
TOTAL	13,159.38 acres

County agricultural maps place Laurens agricultural lands in Agricultural District 6.

LAND USE REGULATION:

Town:	Dumping Site Plan Review	Junkyard Subdivision	Cell Tower Law Land Use Regulations (effective Jan 1, 2005)
Village:	Mobile Homes		

PUBLIC EDUCATION: Public education is shared between several school districts: Laurens Central School (the primary school serving the majority of the town), Milford Central School, Morris Central School, Oneonta Central School and Unatego Central School.

COMMUNITY SERVICES: Police protection is provided by both the County and State which patrol on a random or as needed basis.

County Sheriff Headquarters – Cooperstown. State Police Barracks - Oneonta

Fire Protection: Laurens VFD, West Laurens VFD, Mt. Vision VFD

EMS: Laurens Emergency Squad.

LAURENS MITIGATION PROJECTS: All of the mitigation projects undertaken to date in the Town and Village of Laurens have been to reduce the impact of disasters.

SECTION 3 - PLANNING PROCESS

The Town and Village of Laurens officially began the development of this all-hazards mitigation plan with a August 9, 2004 meeting held at the Laurens Town hall in the town of Laurens, New York. The purpose of this meeting was to introduce the mitigation concept, describe past efforts in the Town and to get all possible participants at the same point for the multi-jurisdictional planning process. Key players from several organizations in the County were invited. The meeting was well attended with 10 individuals representing the County of Otsego, Laurens Town Board, Laurens Village Board, Town and Village Clerk's Office, as well as the Town and Village Highway Departments.

Based on interest generated at the meeting, the Town and Village of Laurens, in conjunction with the Otsego County Planning Department, formed a Planning Committee made up of the following members:

Planning Committee:

Mr. Oscar Oberkircher	Town Supervisor, Administration, Resource and Reference
Mr. Robert Zack	Village Trustee, active resident Resource and Reference
Mr. Gerald Wenck	Town water supervisor, Resource and Reference
Mr. Robert Anderson	Highway Superintendent, Village Board member Administration, Resource and Reference
Mr. Thomas Brownell	Fire Chief, long time resident Resource and Reference
Mr. Dana Weygund	Volunteer Fire Fighter Resource and Reference
Staff to the Committee:	
Diane Carlton,	AICP Director, Otsego County Planning Department
Matt Van Slyke	Planner, Otsego County planning Dept.
Ann Williamson	Administration, Mapping, Editing, Budgeting,
Matt Munson	Intern - State University College at Oneonta- Research and Development.
Nancy Okkar	Administrative Assistant

The County Planning Department, under the guidance of Matt Van Slyke and supervision of Director Diane Carlton was responsible for the coordination of other agencies, scheduling of meeting, presentation of information and development of the plan. Matt Van Slyke acted as the liaison between governing bodies preparing the plan and other agencies. Matt was assisted by college intern Matt Munson, an undergraduate geography student from the State University College at Oneonta. Ann Williamson, Planner assisted with administrating, mapping, budgeting, writing and editing of the plan. On July 31, 2004 the Village and Trustees appointed a Hazard Mitigation Committee to work with

the Planning Department and a list of other county, regional and state agencies to contact for relevant information. Each committee member's responsibilities are outlined above.

The committee met monthly beginning in July 2004 until January 2005. On January 11, 2005, following a 7-month process, the Village and Town of Laurens adopted the Draft All Hazards Mitigation Plan.

The committee made a conscious effort to involve the public by advertising each public meeting and or hearing in the official newspaper. Public meetings were held during the formation of the plan: one at the introductory, one when soliciting information to identify hazardous analysis report, and one prior to submitting the final document. Meetings were held in the evenings to allow for individuals to attend during non-working hours. Citizens were also notified through public notice and posted bulliten, of the proposed revisions and were able to comment before August 31, 2006. Copies of the document was available at the Village Clerk's office and the County Planning Department for review. In addition, Fire Halls at Mt. Visions, Laurens, and West Laurens, the Prespitiirian church and Luthurn church, Town hall, Laurens central school, SUNY Oneonta, and Hartwick college were notified by the Village Clerk during the revsision phase of the document to allow for additional input. A list and copy of the letter appears in appendix C-2.

Meetings of the committee were held on a regular basis and open to the public

Planning Process

- **8/29/2004: Town of Laurens Introductory Meetings:** Planning Department staff met with the Town and Village Boards to discuss the All Hazards Mitigation Plan. Mitigation examples, copies of the County Plan, and a sample resolution of participation were handed out to Board members.
- **8/31/2004: Village of Laurens Introductory Meetings:** Planning Department staff met with the Town and Village Boards to discuss the All Hazards Mitigation Plan. Mitigation examples, copies of the County Plan, and a sample resolution of participation were handed out to Board members.
- **9/16/04: Town and Village of Laurens Hazard Mitigation Resolution Received:** Receipt of resolution from the Town establishing the Hazard Mitigation Planning committee.
- **10/19/2004: Town and Village of Laurens Hazard Analysis:** In conjunction with other involved agencies, a hazard analysis was created for the Town and Village of Laurens. This analysis was created by using the HAZNY (hazards New York) computer program supplied by the State Emergency Management Office.
- **11/4/2004: Town and Village of Laurens HAZNY Review:** The Hazard Mitigation Planning Committee as well as other involved agencies met to review the compiled HAZNY report. After close review some minor changes were made to the report to better reflect the Town and Village of Laurens.

Committee members also discussed the formation of the Town and Village of Laurens Hazard Mitigation Plan. Recommendations for this plan were noted.

- **12/9/2004: Town and Village of Laurens Hazard Mitigation Plan review:** After compilation of the Town and Village of Laurens hazard Mitigation Plan by the Otsego County Planning Department, committee members met to revise and ensure appropriate changes were completed.
- **1/10/2005: Town of Laurens Adoption of All Hazards Mitigation Plan:** The Hazards Mitigation Committee presented the Laurens All-Hazards Mitigation Plan to the Town Board, which adopted the plan by unanimous vote.
- **1/11/2005: Village of Laurens adoption of All Hazards Mitigation Plan:** Hazards Mitigation Committee presented the Laurens All-Hazards Mitigation Plan to the Village Trustees and Village Board, which adopted the plan by unanimous vote.
- **6/20/06: Village and Town of Laurens Hazard Mitigation Plan revision and crosswalk review.** County planning representatives Fiona Carbin, met with Oscar Oberkircher Town Supervisor and Robert Zach Village Trustee to review crosswalk and address historical data of document. A public notice was drafted by Oscar Oberkircher notifying the public of the revision period and acceptance of any additional comments before amendments would be completed. A deadline of August 31, 2006 was established. In addition, Oscar Oberkircher would send individual letters to Fire Halls at Mt. Visions, Laurens, and West Laurens, the Presbyterian church and Luthern church, Town hall, Laurens central school, SUNY Oneonta, and Hartwick college inviting their input for the revisions.

Coordination with Agencies:

Matt Van Slyke, contacted county, regional, and state agencies for relevant information and recommendations about the mitigation planning effort. These agencies were all notified of each meeting and invited to participate. In addition, the State University College at Oneonta provided the County Planning Department with an undergraduate student, Matt Munson who was extremely helpful in assisting Matt Van Slyke by attending meetings, gathering information, interviewing various officials and gathering data information. Personnel from these agencies attended planning meetings, provided information, answered questions, reviewed minutes, and reviewed draft sections of documents. Feedback from these agencies help to develop hazardous areas and concerns not recognized by the committee and aided in the development of the maintenance and mitigation portion of the document. The County office of Emergency Services was able to provide historical data of hazardous conditions. The planning department was the major sources for population statistics and geographical information. Marybeth Vargha from the county GIS department assisted with mapping and GIS interpretation. Representatives from the Red Cross were able to provide historical data of the county in regards to services rendered during hazardous weather conditions and or other county-wide disaster related situations.

The contributions from agencies and organizations that contributed to this planning process are listed below:

- Otsego County Emergency Management Office
- Otsego County Health Department
- Otsego County Planning Department
- American Red Cross
- New York State Emergency Management Office
- New York State Department of Environmental Conservation
- Otsego County Building and Codes
- Local organizations (see appendix C-2)

Specific Documents incorporated into the plan

The committee utilized various documents in the preparation of the plan, including historical data provided by County Office of Emergency Services and prior FEMA requests documented through the Village and Towns of Laurens. These two documents provided the Village and Town of Laurens with data to identify prior occurrences of disasters in the Village. Local flood plain maps, and GIS information gathered from the county GIS coordinator Marybeth Vargha, provided the geographical data to apply to the Village and Town boundaries and map accordingly. Zoning Site plan and Subdivision comprehensive plans were reviewed to identify any existing regulations pertaining to site plan restrictions and building proposals that would be located in identified potentially hazardous areas. The Village and Town has a flood plain restriction to avoid building in high water table areas (see appendix F-3). These areas are identified by the flood plain map information. The Village and Town operate under the jurisdiction of the NYS building code. Otsego County Building and Codes was able to supply information in regards to building requirements for new construction foundation in high water table areas.

SECTION 4 – RISK ASSESSMENT

- *-See appendix F-4 map of identified natural hazards.*

Specific locations within the Town and Village of Laurens that may be affected by relevant natural hazards were located on a map with the assistance of historical data and the professional knowledge of the street and parks commissioner and the county emergency management director. Appendix F-4 identifies the locations of these areas. The committee then determined the risk assessment for each as well as gathered historical data to support risk assessment. The following is a summary of historical documentation for the Town and Village.

Hazard or Event Description	Source of information	Map available?
Winter snow storm- 1990 Entire town was affected.	Emergency Representatives	See figure 4.1
Blizzard 1993- Entire town was affected.	Newspaper Emergency Representatives	See figure 4.1
Flood-1996 Entire town was affected.	Emergency Representatives	See Appendix F-7 &F-8
2000- Y2K Entire town threatened by the failure of its facilities	Emergency Representatives	Unavailable
Winter Snow Storm- 2002/03 Entire town was affected, people could not go to work due to road closures and holiday plans were either altered or terminated.	Members of the Community Emergency Representatives FEMA	See figure 4.1
Ice Storm- 2003 Road Closures, limbs down	Emergency Representatives	See Appendix F-8 and figure 4.1
Black Out- 2003 Entire town had no electricity causing hazards in the roadways, and seriously in convened residents lives	Members of the Community Newspaper	unavailable
Flood- 2005 Heavy rain fall caused washout on some town roads	Members of the Community Emergency Representatives FEMA	See Appendix F-7 &F-8
2006- Flood Heavy Rains caused major flooding throughout the entire town. Properties were seriously damaged especially agricultural fields, most roads were closed, and residents were out of work for 2-3 days, high cost in repair. Both seasonal and main roads were closed. Damages ranged between 1.5 – 2 million dollars.	Members of the Community Emergency Representatives FEMA	See Appendix F-7 &F-8

SECTION 4 – RISK ASSESSMENT

In order to prepare for and mitigate the consequences of hazardous events, it is necessary to understand the local vulnerability. Vulnerability is based on the natural and man-made factors that determine the probability of an event occurring and community factors that contribute to the severity of the impacts.

A quantitative risk assessment for the Town and Village of Laurens was conducted using the HAZNY program developed by the New York State Emergency Management Office. HAZNY is an automated interactive spreadsheet that enables a group of local experts to rank hazards based on the scope (area of impact and potential of cascade effect), frequency, impact, onset, (warning time) and duration of each hazard considered. The group evaluated 20 hazards that can potentially affect the Town and Village of Laurens and rated them as follows. The highlighted hazards were identified by the team to be representative of natural hazards that have occurred and potential hazards that are more likely to occur.

The hazards identified by an “*” are further reviewed for risk assessment. It was decided to determine risk assessments of natural hazards which are the most likely to occur, or have historically occurred in the Town and Village of Laurens.

HIGH HAZARDS:

UTILITY FAILURE	350
204	

*ICE JAM	162
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LOW HAZARDS:

*WINTER STORM (SEVERE)	330
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SEVERE STORM	323
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MODERATELY HIGH HAZARDS:

ICE STORM	315
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*FIRE	309
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*FLOOD	299
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EXPLOSION	293
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EXTREME TEMPS	288
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OIL SPILL	284
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*HAZMAT (IN TRANSIT)	282
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TORNADO	267
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STRUCTURAL COLLAPSE	262
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WILDFIRE	255
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EARTHQUAKE	250
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*DAM FAILURE	248
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HAZMAT (FIXED SITE)	246
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TRANSPORTATION ACCIDENT	245
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MODERATELEY LOW HAZARDS:

*WATER SUPPLY CONTAMINATION	227
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RADIOLOGICAL (IN TRANSIT)	216
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DROUGHT	211
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TERRORISM

BLIGHT	143
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The Following hazards were eliminated from consideration for the reason stated:

Air Contamination	Air Contamination was considered a negligible hazard by the Hazard Mitigation Committee.
Avalanche	Avalanches in New York State are mainly confined to the higher peaks of the Adirondacks. Any small avalanche that may occur in the Town and Village of Laurens is likely to be of such small size and power that the damage would be negligible or easily handled by Town and Village resources.
Civil Unrest	Civil Unrest was considered a negligible hazard by the Hazard Mitigation Committee.
Epidemic	Based on Hazard Mitigation Committee review and disaster histories for the Town and Village of Lauren, Epidemic was determined to be a remote hazard with negligible effects.
Food Shortage	Food Shortage was not considered since there are no distribution/ retail establishments within the Town and Village. Due to the lack of close shopping establishments, residents are more likely to purchase supplies in bulk and/or for extended periods on a regular basis.
Fuel Shortage	Fuel Shortage was not considered since there are no distribution/ retail establishments within the Town and Village. There exists a slight possibility that as a secondary result of another hazard such as winter storm, delivery may be delayed, but for the most part is was seen by the committee that this type of hazard would be negligible.
Hurricane	Hurricane force winds and accompanying rain were not reviewed separately. The impacts were analyzed as Severe Storm.
Infestation	Infestation was considered a negligible hazard by the Hazard Mitigation Committee.
Landslide	Landslide was considered a negligible hazard by the Hazard Mitigation Committee.
Mine Collapse	There are no underground mines located in the Town and Village of Laurens. The closest mines located near Town

and Village of Laurens are located in Schoharie County, which is to the North East of Laurens.

Radiological at Fixed Site

There are three electricity generating nuclear power sites in New York State. Of the three the Indian Point site, located in Westchester County, is the closest, located approximately 100 miles from the Town and Village of Laurens border. The other sites are in the Towns of Scriba and Ontario along Lake Ontario and are 100+ miles away. The possibility is remote, but Laurens could be impacted by low levels of radiation in a major anomaly at one of the six-generating plants. In such a case, considerable time would be available for any necessary actions.

Tsunami/Wave Action

According to the National Weather Service (Philadelphia/Mount Holy), tsunamis have affected the Atlantic Coast of the Northeastern United States in the past. All tsunami/wave damage was confined to the immediate coast. Due to the geographic location of the Town and Village of Laurens, the ability of a tsunami to affect Laurens is extremely remote, bearing a catastrophic event in the Atlantic Ocean.

The following assessment evaluates the risks associated with each hazard in the Town and Village of Laurens. The responses used for the HAZNY assessment are presented, along with additional information about historic occurrences, vulnerabilities, and loss estimates where appropriate.

HIGH HAZARDS

Three hazards were determined to be High Hazards. These are Utility Failure, Winter Storm (Severe), and Severe Storm.

UTILITY FAILURE:

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Likely

Frequency: A Frequent Event

Onset: No Warning

Hazard Duration: Four days to One Week

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

Definition: Loss of electric and/or natural gas supply, or public water supply because of an internal system failure and as a secondary effect of another disaster agent.

Profile/Vulnerability Assessment: A widespread and prolonged utility outage is most likely to occur as a cascade effect of another hazard (severe winter storm, ice storm, flood, etc.). These incidents are evaluated elsewhere under this plan. The loss of power generally results from damage to power lines (due to high wind, ice, traffic accidents, etc.) or transmission equipment (often resulting from animal damage). Telephone service can be lost due to overloaded systems, mechanical problems, or damage to phone lines. The ongoing maintenance and operational procedures of each utility provider are intended to minimize the risk of service disruption.

Due to our widespread reliance on electricity, telephones, and potable water, the loss to these services can disrupt many ordinary activities. Emergency communications may be impaired if it becomes necessary to rely on radio communications. A water supply failure can result in an increased fire hazard if it becomes necessary to transport water to areas normally served by fire hydrants. A prolonged power failure can affect heating, food (spoilage, inability to cook), water supplies, industrial processes, and businesses. The most likely cause of injury or death is from unsafe use of alternate fuel sources for heating, cooking and lighting.

The entire community is vulnerable to the potential impacts of an electricity or telephone outage. An extended utility outage in the Town and Village would represent an

inconvenience for most residents, with economic losses for some businesses. The greatest economic loss would be for the utility itself, which must provide the crews and equipment to restore service. The northeast blackout in August 2003 affected the entire Town and Village. Commercial grocery businesses with generators were positively impacted, whereas businesses without generators were harmed.

WINTER STORM (SEVERE):

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Likely

Frequency: A Frequent Event

Onset: One Day Warning

Hazard Duration: Four days to One Week

Recovery Time: More Than Two Weeks

Impact:

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

Definition: A storm system that develops in the late autumn to early spring and deposits wintry precipitation, such as snow, sleet, or freezing rain, with a significant impact on transportation systems and public safety. Ice Storm is included as a separate hazard. For this analysis, the following could meet this definition:

- Heavy snow – Snowfall accumulating to 6 inches in twelve hours or less.
- Blizzard – A winter storm characterized by low temperatures, wind speeds of 35 miles per hour or greater, and sufficient falling and/or blowing snow in the air to frequently reduce visibility to ¼ mile or less for a duration of at least three hours.
- Severe Blizzard – A winter storm characterized by temperatures near or below 10 degrees Fahrenheit, winds exceeding 45 mph, and visibility reduced by snow to near zero for duration of at least three hours.

Profile/Vulnerability Assessment: Limited primarily to the late autumn through early spring, most severe winter storms impact the entire Town and Village of Laurens by causing roadway hazards and transportation accidents. In addition, severe winter storms are capable of costing thousands of dollars, due to damage to structures resulting from the weight of large accumulations of ice/snow and the removal of snow accumulations. Significant losses attributed to these weather events have included widespread interruption of electric-power delivery to thousands of customers because of down power lines and utility poles.

Severe winter storms occur frequently throughout the Town and Village of Laurens, primarily Nor-Easters as well as the occasional blizzard. Although Laurens expects to deal with annual snow removal, major snowfall in a short period of time or blizzard conditions can exceed the normal capacity of Laurens' local highway department. Emergency response times can be impeded and the ability for all residents, especially

those in the most remote locations of the Town and Village may find fuel and food availability is hindered and utility failures can occur. Most residences in the most rural parts of the Town and Village have back up wood heat sources. Access to certain homes can take days to clear, especially dead end roads and residents with long driveways.

The map below shows the annual snowfall for the state of New York. Otsego county is approximately 75-100” per year.

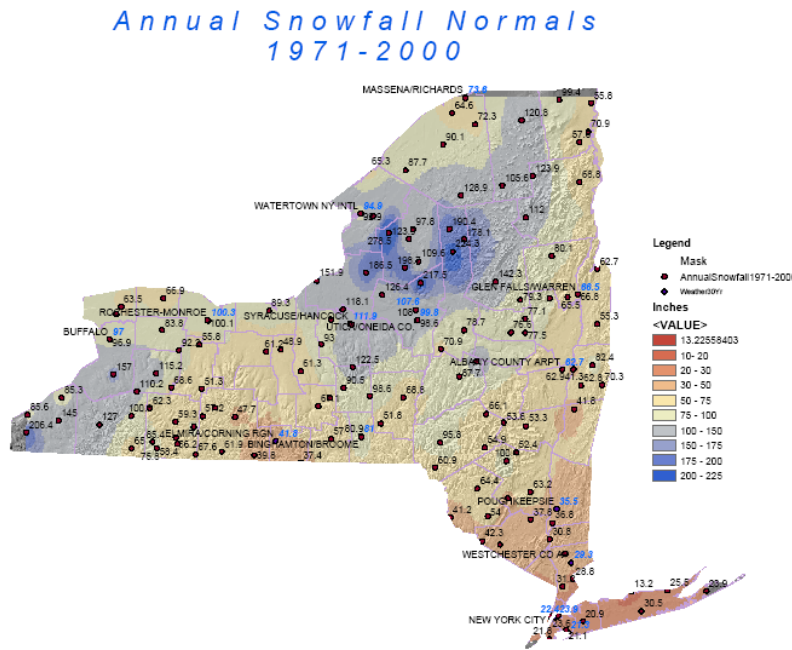


Figure 1.1

SEVERE STORM:

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Likely

Frequency: A Frequent Event

Onset: Several Hours Warning

Hazard Duration: Less Than One Day

Recovery Time: More Than Two Weeks

Impact:

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

Definition: A storm including, but not limited to hail storms, windstorms, and severe thunderstorms (with associated severe wind events such as derechos, gustnados, and downbursts).

Profile/Vulnerability Assessment: The Town and Village of Laurens experiences many severe storms each year. These storms may include severe thunderstorms and remnants of major hurricanes or tropical storms. These storms have the potential to cause several cascade events including utility failure, flood/flash flood, dam failure, water supply contamination, transportation accident, and landslide. In the event of a severe storm private property as well as public infrastructure could be adversely affected.

It is difficult to affix any type of value to private losses from a disaster of this type. Many losses are unaccounted for because they are not reported to insurance agencies. Because of this fact, the Hazard Mitigation Committee had to use its best judgment in determining the value of losses from this type of disaster. According to committee estimates, a moderate loss could easily top \$500 per occurrence. If this is the case the town could suffer from over \$1,000,000 in damages due to this type of event.

Public losses from this type of disaster include direct expenses to the Town's Highway garage. Items such as road clearing, tree removal, sand and salt spreading, items above and beyond the regular allocated budgeting can account for deficits of the highway budget of over 20%. Utilities losses are estimated into the millions of dollars during an event of this nature. Below is a map showing the wind zones of New York State. Otsego County is identified as mostly zone 3 characteristics, which represents wind zones of 200 mph.

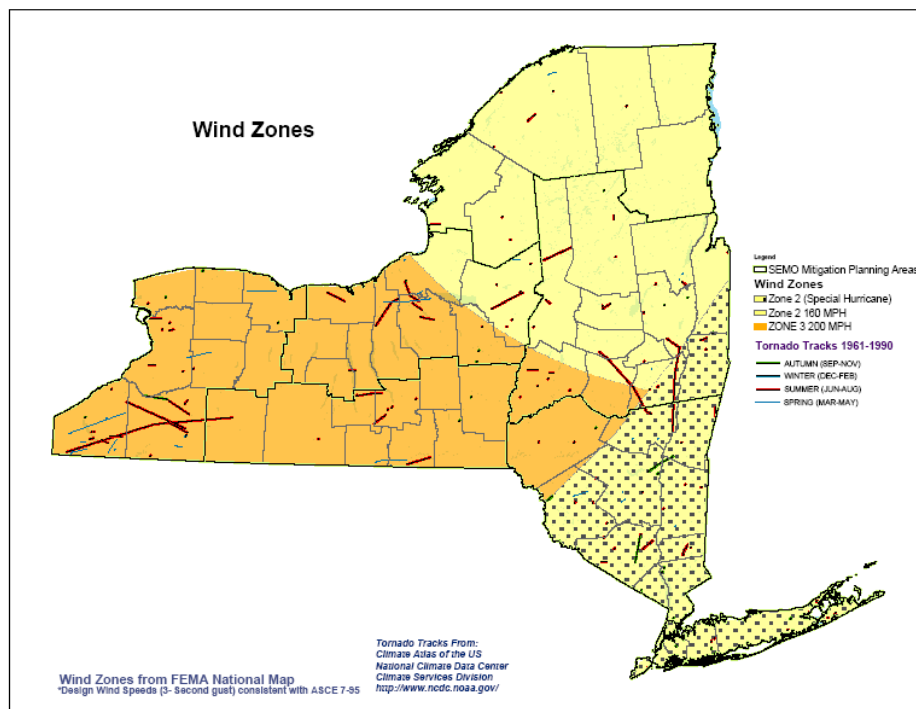


Figure 4.2

MODERATELY HIGH HAZARDS

Fourteen hazards were determined to be moderately high hazards. These are Ice Storm, Fire, Flood, Explosion, Extreme Temperatures, Oil Spill, Hazardous Material in Transit, Tornado, Structural Collapse, Wildfire, Earthquake, Dam Failure, Hazardous Material Fixed Site, and Transportation Accident.

ICE STORM:

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Likely

Frequency: A Frequent Event

Onset: One Day Warning

Hazard Duration: One Day

Recovery Time: More Than Two Weeks

Impact:

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

Definition: Freezing rain that accumulates in a substantial glaze layer of ice resulting in serious disruptions of normal transportation and possible downed power lines.

Profile/Vulnerability Assessment: When ice encases exposed surfaces, hazardous road conditions disrupt transportation. The weight of the ice can knock down trees and power lines, disrupting power and communication for days. Additional hazards that can be triggered by an ice storm include transportation accidents, power failure, and fuel shortage. Normal emergency operations, such as police, fire, and ambulance service can also be impeded. Since the same conditions may occur over a large area, aid from neighboring jurisdictions may not be available. The entire Town and Village of Laurens is vulnerable to the impact of ice storms.

Several ice storms have occurred in the Town and Village of Laurens throughout the last decade. These storms usually occur two times a year on average, and last no longer two to three days. Although there have not been any major storms comparable to the severe ice storms that occurred in the northern counties throughout New York State, a potential still exists.

It is difficult to affix any type of value to private losses from a disaster of this type. Many losses are unaccounted for because they are not reported to insurance agencies. Because of this fact, the Hazard Mitigation Committee had to use its best judgment in determining the value of losses from this type of disaster. According to committee estimates, a moderate loss could easily top \$500 per occurrence. If this is the case the Town and Village of Laurens could suffer from over \$1,000,000 in damages due to this type of event.

Public losses from this type of disaster include direct expenses to the Towns' Highway budget. Items such as road clearing, tree removal, sand and salt spreading, items above and beyond the regular allocated budgeting can account for deficits of the highway budget of over 20%. Utilities losses are estimated into the millions of dollars during an event of this nature.

FIRE:

Potential Impact: Several Locations
Cascade Effects: Highly Likely
Frequency: A Frequent Event
Onset: Several Hours Warning
Hazard Duration: One Day
Recovery Time: More Than Two Weeks

Impact:

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

Definition: The uncontrolled burning in residential, commercial, industrial, or other properties in developed areas.

Profile/Vulnerability Assessment: There have been numerous accounts of fire throughout the Town and Village of Laurens' history. A large-scale residential fire usually occurs every 10 years. Much of the business districts consist of buildings in excess of 100 years in age. These buildings are very close to one another, creating the potential for a series of devastating fires. These fires could have the potential to destroy a large portion of Laurens' business district.

Private losses are the greatest in a fire related disaster event. The Town has an equalized assessed building value of \$35,216,905, while the village has an equalized assessed building value of \$5,749,538. Replacement costs could be greater than four times this amount due to the historic nature of buildings in the community. Full replacement value including content and loss of use would be astronomical.

FLOOD:

Potential Impact: Throughout a Small Region
Cascade Effects: Highly Likely
Frequency: A Frequent Event
Onset: One Day Warning
Hazard Duration: Four days to One Week
Recovery Time: One to Two Weeks

Impact:

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

Definition: Flooding usually is a natural, cyclic occurrence in existing water bodies or drainage ways. 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. Urban flooding occurs in developed areas where the drainage system is inadequate to safely convey runoff.

Profile/Vulnerability Assessment: Flooding is New York’s most constantly damaging natural disaster. Since 1955, New York has recorded more flood events than any other state in the Northeast. Millions of dollars in flood losses are sustained each year due to private property damage, infrastructure damage, disruption of commerce, unemployment caused by floods, the expense of disaster relief, and other related costs. Annual economic losses are estimated to be as high \$100 million.

Flash Flooding can be caused by excessive precipitation, rapid snowmelt, ice jams, beaver dams, or dam failure. Steep slopes make the area very prone to flash flooding. Slow moving thunderstorms often produce flash floods, particularly during summer months. Remnants of tropical storm systems can produce both flash floods and river flooding.

According to the National Flood Insurance Program there are 11 residents in Town and Village of Laurens enrolled in the program, with a total of \$545,400 of coverage. Most of the flooding events in Laurens were not declared major disasters, but still produced large amounts of damage. The losses from those flood events are unknown, but no doubt substantial.

Additional hazards that are likely to be triggered by a flood event include hazardous material release, transportation accident, power failure, fuel shortage, water supply contamination, food shortage, landslide, disease, and dam failure. The damages and recovery time from a major flood can be extensive.

With the recent flood of June 2006, it is evident the Town and Village of Laurens experienced a significant amount of damage. The majority of damage occurred within roadways and culvert areas throughout the county. The town and village experienced damage to an estimated extent between 1.5 – 2 million dollars. The risk assessment from flooding was calculated using current information from the Town and Village during the recent flood. See appendix F-3.

EXPLOSION:

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: More Than Two Weeks

Impact:

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

Definition: The threat or actual detonation of an explosive device or material with the potential of inflicting serious injury to people or damage to property.

Profile/Vulnerability Assessment: An explosion generally occurs with little or no warning. It can cause serious injury or death to those in the immediate vicinity of the explosion and damage to the surrounding property. If it occurs in a building, the structure is likely to be extensively damaged or destroyed. An explosion can trigger a fire, transportation accident, hazardous material release, or other event.

The types of situations that can lead to an explosion are so numerous, that most areas in the Town and Village must be considered vulnerable. Explosive materials can be stored and used at industrial sites, retail establishments, agricultural operations, residences, and illegal methamphetamine labs. Explosive materials are transported through the community along roads and pipelines. Propane trucks and natural gas distribution lines deliver explosive materials to customers throughout the Town and Village of Laurens.

EXTREME TEMPS:

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Likely

Frequency: A Frequent Event

Onset: Several Days 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
- Moderate Structural Damage to Public Facilities

Definition: Extended periods of excessive cold or hot and humid weather with a serious impact in human and/or animal populations, particularly elderly and/or persons with respiratory ailments.

Profile/Vulnerability Assessment: Extreme temperature conditions generally impact only a few isolated individuals. However, compounding circumstances, such as severe winter weather that strands motorists or an extended power failure, can increase the number of people affected.

Freezing temperatures can cause problems with burst pipes, ruptured water mains, and car engines, "brown-outs" from overuse of electricity for air conditioning, and changes in airplanes' performance. However, as with extreme cold, the major danger of extreme heat is to humans and animals. Heat-related ailments can range from annoying conditions to life-threatening situations, such as heat cramps, fainting, heat exhaustion, and heatstroke. Those most at risk are those with health conditions (respiratory ailments, overweight, alcohol problems, etc.) or those on certain medications or drugs.

OIL SPILL:

<u>Potential Impact:</u>	Several Locations
<u>Cascade Effects:</u>	Some Potential
<u>Frequency:</u>	A Frequent Event
<u>Onset:</u>	No Warning
<u>Hazard Duration:</u>	Less Than One Day
<u>Recovery Time:</u>	More Than Two Weeks

Impact:

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

Definition: The uncontrolled or accidental discharge of petroleum into water and/or onto land or sea.

Profile/Vulnerability Assessment: Approximately 95% of the spill events that require response by the NYDEC involve petroleum products. Most of these incidents involve leaking underground storage tanks or the release of fuel due to a motor vehicle crash. The most frequent fixed site petroleum spill incidents responded to by Spills Engineers from the NYDEC involve the release from abandoned underground storage tanks. The cleanup costs for these incidents typically range from a minimum of \$10,000 to \$50,000 or more if groundwater is contaminated. The most frequent transit-related petroleum spills involve the release of fuel due to traffic accidents. A tractor-trailer accident can result in a surface spill of 50 to 300 gallons of diesel oil, which requires a response from the NYDEC and contractor work to clean up the site. The typical cost for this type of incident is \$2500 to \$10,000 (estimate from NYDEC Spills Engineer). Smaller releases can be managed by fire departments. Ruptured pipelines can release large volumes of material, particularly if the rupture is not detected. The resulting environmental

contamination can take years and millions of dollars to clean up. A transportation accident resulting in a petroleum spill could occur on any county or municipal road. The heaviest traveled county routes of 205 and 23, pose the greatest threat of a petroleum spill. These routes run along the East and West sides of Laurens.

HAZMAT (IN TRANSIT):

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Likely

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

Definition: The uncontrolled release of material 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.

Profile/Vulnerability Assessment: The Town and Village of Laurens occasionally have transportation crashes that result in the release of hazardous materials. Fortunately, these incidents generally involve small quantities of material. The potential exists for a more serious incident involving a pipeline failure or tank truck crash that would release large volumes of hazardous materials. At certain times of the year, the agricultural industry uses quantities of fertilizer that have explosive or other dangerous qualities.

The packaging used to ship hazardous material generally prevents catastrophic releases of highly toxic substances. However, transportation accidents resulting in the release hazardous materials can result in fire, explosion, release of toxic fumes, water supply contamination, agricultural damage, or environmental contamination. If an acutely toxic substance is dispersed in the atmosphere, the area of concern can extend as far as 10 miles from the site of the release. Rupture of a natural gas pipeline can cause an explosive force sufficient to level buildings. An overturned tanker may take a week or more to mitigate. If contaminants are dispersed into the environment, the cleanup can take years.

Transportation accidents in the Town and Village of Laurens involving hazardous material could occur on municipal roads, with the greatest probability along the county routes. These principal transportation routes pass through more densely populated areas of the Town and Village. Most of the residents and businesses in the Town and Village are located within one mile of a county route or pipeline.

A credible worst-case hazardous material incident could result from an accident that ruptures a tank truck containing hazardous materials. If the released material is subject to atmospheric dispersion, the radius of concern could be as much as 10 miles (for example, ammonia, chlorine, or nitric acid). If a release occurs in a more densely populated area, an evacuation of a 5-mile radius would be required. This would result in approximately 10,000 residents being displaced. The estimated cost of these residents would be at least \$250,000 (based on a Red Cross estimate that expenses are a minimum of \$25.00 - \$100.00 per person per day). In addition to emergency response expenses, casualties, and medical expense, the property damage and environmental cleanup costs resulting from a hazardous material release could be hundreds of thousands of dollars.

TORNADO:

<u>Potential Impact:</u>	Several Locations
<u>Cascade Effects:</u>	Highly Likely
<u>Frequency:</u>	A Regular Event
<u>Onset:</u>	Several Hours Warning
<u>Hazard Duration:</u>	Less Than One Day
<u>Recovery Time:</u>	More Than Two Weeks

Impact:

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

Definition: A tornado is a violently rotating column of air that extends from the base of a thunderstorm and comes in contact with the ground. 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. Tornadoes are the most violent storms on earth, with estimated wind speeds of 200-300 miles per hour.

Profile/vulnerability Assessment: The entire Town and Village is vulnerable to tornado damage. Damage paths for tornadoes can be in excess of 1 mile wide and 50 miles long. Despite improved weather forecasting capability, tornadoes can occur with little or no warning. A tornado is a great threat to life and usually causes catastrophic damage to property within its path. The winds in the strongest tornadoes are the fastest winds experienced anywhere on earth, with rotation velocities up to 300 mph. They can result in the total destruction of homes (especially mobile homes), businesses, cars, etc. and cause many deaths. Extensive damage to electric and telephone lines is likely. Extensive tree damage along roadways may inhibit or block access. Damaged or destroyed radio and television towers can impede communication. Because tornadoes are associated with thunderstorms, they may be preceded or followed by heavy rainfall or hail. This violent path of destruction caused by a tornado is likely to result in serious injury or death and moderate to severe damage to public and/or private property. Tornadoes can trigger many other hazards, including power outages, structural collapse, fires, and hazardous chemical releases.

The map below indicates the wind zones throughout the US based on historical data, showing where Presidential declarations have been issued for our state. Otsego county overall is 95% Zone 3 @ 200 winds per hour and 5% zone 2 at 160 miles per hour. Given this information a risk assessment was then generated for this hazard.

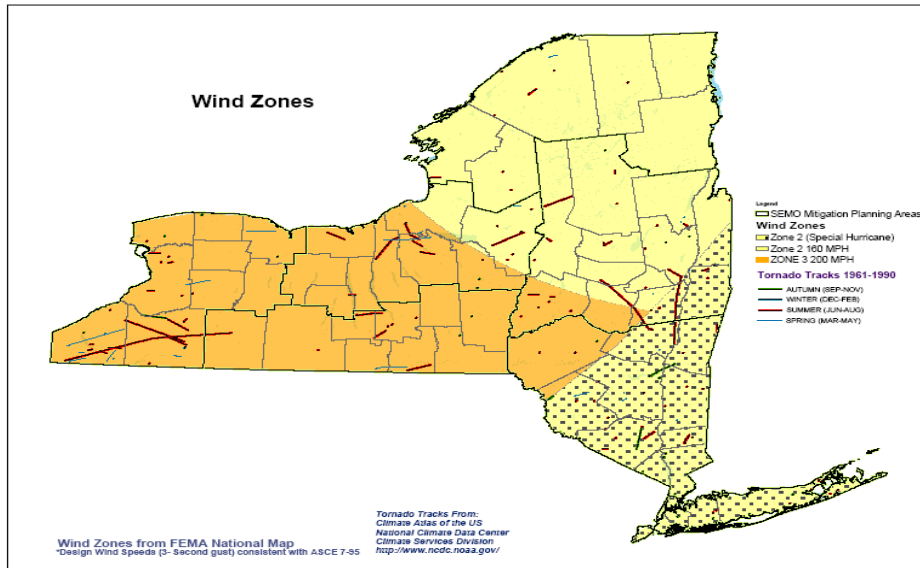


Figure 4.3

The following chart is from the website www.tornadoproject.com and is historical data for tornadoes in Otsego County from 1950 on. The damage pattern F0-F5 indicates the extent of damage to the county. This information was used for the Village to determine the risk assessment from a Tornado. F0 category is considered a Gale tornado at wind speeds of 40-72 mph with light damage. Some damage to chimneys; broken branches; push over shallow-rooted trees; Category F1 or moderate tornado (73-112 mph) created moderate damage including roof surfaces were peeled off, mobile homes pushed off foundations or overturned; moving autos pushed off road. Category F2 is considered a significant tornado of 113-157 mph causing considerable damage where roofs are torn off and mobile homes demolished, large trees snapped and/or uprooted.

Otsego County Tornadoes

AUG 10, 1958	001	1644	0	0	F1	077
AUG 16, 1961	004	1800	0	0	F0	077
JUN 16, 1976	005	1810	0	0	F2	077
JLY 26, 1985	005	1155	0	0	F1	077
JUN 16, 1986	002	2000	0	0	F0	077
JUN 22, 1987	002	1500	0	0	F0	077
JLY 25, 1987	004	1600	0	0	F0	077
JLY 05, 1992	012	1500	0	0	F1	077

Potential dollar damages are difficult to estimate for a tornado event in the Town and Village of Laurens. A F3 tornado impacting any part of the Town and Village could devastate several structures, result in multiple deaths/injuries and result in millions of

dollars in damages. On the other hand, a tornado impacting an undeveloped area could result in far less damage to agricultural crops, forest, or some single-family housing.

STRUCTURAL COLLAPSE:

<u>Potential Impact:</u>	Single Location
<u>Cascade Effects:</u>	Some Potential
<u>Frequency:</u>	A Regular Event
<u>Onset:</u>	No Warning
<u>Hazard Duration:</u>	Less Than One Day
<u>Recovery Time:</u>	One to Two Weeks

Impact:

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

Definition: A sudden structural failing, partially or fully, of buildings, bridges or tunnels, threatening human life and health.

Profile/Vulnerability Assessment: Structural Collapse in the Town and Village of Laurens is usually the result of improper construction methods, improper structure maintenance, heavy snow weight, transportation accident, or fire. Barns have collapsed in Laurens during winter months usually due to a combination of heavy snow pack with subsequent rain. The likelihood of structural collapse of residential structures or new commercial structures is low, especially with the present International Building Code. The collapse of a residential structure could result in approximately \$75,000 in damages per structure. Collapse of a large commercial structure or bridge could result in several hundred thousand dollars in damages. Collapse of occupied structures can result in deaths/injuries. Proper building methods and monitoring of snow load can help reduce this hazard.

In general, any structural damage to a building would be isolated to one building with the potential for damage to surrounding properties. Given the rural nature of the Town and Village of Laurens, structural damage to a particular building and surrounding buildings would not affect a significant amount of individuals or property damage. The average replacement for bridges can be estimated at \$50,000 to 1 million dollars. Therefore no further risk assessment was completed for this hazard.

WILDFIRE:

<u>Potential Impact:</u>	Throughout a Small Region
<u>Cascade Effects:</u>	Highly Likely
<u>Frequency:</u>	A Regular Event
<u>Onset:</u>	Several Hours Warning

Hazard Duration: Two to Three Days
Recovery Time: More Than Two Weeks

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

Definition: The uncontrolled burning in residential, commercial, industrial, or other properties in developed areas.

Profile/Vulnerability Assessment: Most wildfires are started by people through negligent behavior or by downed power lines. The risk of wildfire is greatest during drought conditions, when the moisture content of forests and grasslands is low. The National Weather Service uses the term fire weather for the meteorological conditions that promote the spread of fire. Those weather conditions that promote the ignition and rapid spread of fires include low humidity, high winds (over 10-20 mph), dry thunderstorms (i.e., lightning without rain), unstable air, and dry antecedent conditions. Other factors that contribute to the spread and severity of fires include the available fuel, terrain (fire spreads faster uphill than downhill), and the urban-wild land interface.

Development patterns in the Town and Village of Laurens are such that a wildfire is not likely to impact a large number of structures. Most buildings in the rural and developed parts of the community are surrounded by lawns, which protect against the spread of fires from wooded areas. The use of asphalt shingles also protects against the spread of fire. All fires pose a risk to the firefighters who work to control the blaze. Heavy rains following a wildfire may induce landslides, mudflows, and floods due to the inability of the burned areas to absorb water because of the absence of foliage and groundcover. In addition, fires may cause power failures, air contamination, hazardous material releases, structural collapse, or transportation accidents.

The risk of wildfires is greatest where densely wooded areas and steep slopes exist. The majority of forested land is managed by the NYSDEC and undergrowth is managed to not become a hazardous fuel source. Although Laurens recognizes the potential for wildfire in the Town and Village, the densely wooded rural hillsides of Laurens contain only scattered residential development usually with lawns, which are at risk from wildfires. Large population centers in Laurens are located in agricultural areas where dense forest or grasslands do not abut.

EARTHQUAKE:

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 Weeks

Impact:

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

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).

Profile/Vulnerability Assessment: Earthquakes, although uncommon in this area, pose a relatively serious threat. Several fault lines run throughout New York State, as well as in close proximity to the Town and Village of Laurens. In the past Laurens has had some minor tremors, particularly during the small earthquake which occurred in 2001 in upstate New York.

Earthquakes could trigger several other hazards. The sudden motion of the ground could cause natural pipelines to rupture, causing extensive damage to public and private property.

The Peak Acceleration (%g) with 10% probability of exceeding in 50 years according to the USGS Map, Oct. 2002 revised the Town and Village of Laurens is between 2-3%. Given this low value and the fact no historical data supported any previous and significant damage due to earthquakes, a risk assessment for this hazard would be minimal. No further risk assessment was completed due to any historical data and/or chance of significant impact on the Town and Village of Laurens from the likelihood of an earthquake.

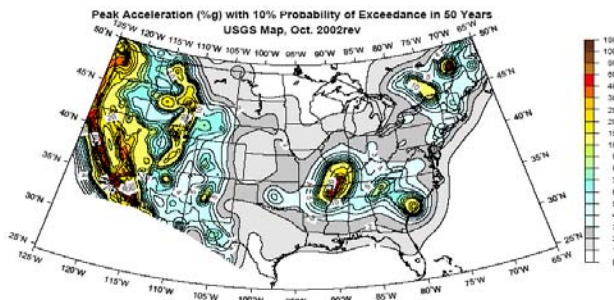


Figure 4.4

DAM FAILURE:

<u>Potential Impact:</u>	Several Locations
<u>Cascade Effects:</u>	Highly Likely
<u>Frequency:</u>	A Regular Event
<u>Onset:</u>	No Warning
<u>Hazard Duration:</u>	Less Than One Day

Recovery Time: Three Days to One Week

Impact:

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

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. Dams may be either man-made or exist because of natural phenomena, such as landslides or beavers.

Profile/Vulnerability Assessment: In the event of a dam failure, the sudden release of enormous amounts of water would cause flash flooding downstream of the dam structure. The damage to private property and infrastructure located within the inundation zone could be extensive. The water surge can cause water supply failure, sewer system failure, hazardous material release, power outage, and other cascade effects.

Dam failure can result from many factors such as natural disasters, structural deterioration, or actions caused by man, including terrorism. According to the International Commission of Large Dams (ICOLD), the three major causes of dam failure are overtopping by flood, foundation defects, and piping.

The largest threat of dam failure in the Town and Village of Laurens is caused by natural phenomena, primarily from beavers. There have been numerous accounts of beaver dam failure throughout Laurens. In 2003 a large beaver dam ruptured. This caused severe damage to private property as well as infrastructure. The inundation waters caused extensive damage to Ed Copes Road, which is located the Northern part of the Town. Beaver dams will continue to pose a threat to residents throughout the Town and Village of Laurens.

HAZMAT (FIXED SITE):

Potential Impact: Several Locations

Cascade Effects: Highly Likely

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
- Moderate Structural Damage to Public Facilities

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.

Profile/Vulnerability Assessment: The greatest threat for hazardous materials at fixed sites in the Town and Village of Laurens lies with the agricultural industry. The International Building Code sets higher standards for seismic, snow loading, and wind for buildings that contain “sufficient quantities of toxic or explosive substances to be dangerous to the public if released.” The agricultural industry uses fertilizers that have harmful or explosive capabilities if misused or stored improperly on a farm.

Incidents involving hazardous materials may result in fire, explosion, release of toxic fumes, water supply contamination, or other environmental contamination. An air contamination could cause a problem for miles from the release site. Emergency responders need to be aware of what hazardous materials are being stored in the Town and Village.

TRANSPORTATION ACCIDENT:

<u>Potential Impact:</u>	Several Locations
<u>Cascade Effects:</u>	Some Potential
<u>Frequency:</u>	An Infrequent Event
<u>Onset:</u>	No Warning
<u>Hazard Duration:</u>	Less Than One Day
<u>Recovery Time:</u>	More Than Two Weeks

Impact:

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

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

Profile/Vulnerability Assessment: The Town and Village of Laurens has the potential for a large transportation accident; there are several heavily traveled routes which extend throughout the Town and Village. This poses the biggest threat of a transportation accident.

There have been several instances of transportation accidents throughout the last 50 years in Laurens. Although none of them substantial, a major transportation accident involving hazardous material would cause local resources to become quickly overwhelmed. Mitigating such an event could only be addressed through proper emergency response training.

MODERATELY LOW HAZARDS

Five hazards were determined to be moderately low. These are, Water Supply Contamination, Radiological in Transit, Drought, Terrorism, and Ice Jam.

WATER SUPPLY CONTAMINATION:

Potential Impact: Throughout a Small Region

Cascade Effects: Highly Likely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Four days to 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

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.

Profile/Vulnerability Assessment: Water supply contamination in the Town Laurens poses a lesser threat than other hazards, primarily because a large percentage of Town residents have private water supply. However, the Village of Laurens provides its' residents with public water. A very large number of residents rely on the same source of water. This is where the greatest threat of water supply contamination would occur.

Water supply contamination would most likely occur during another hazard event (such as flood, earthquake, or landslide), where ground movement would cause ruptured water mains, or contaminated wells.

RADIOLOGICAL (IN TRANSIT):

Potential Impact: Throughout a Small 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 Unlikely
- Little or No Damage to Private Property

- Severe Structural Damage to Public Facilities

Definition: A release or threat of release of radioactive material from a transportation vehicle (including truck, rail, air, and marine vehicle) or other mechanism.

Profile/Vulnerability Assessment: No radiological release in transit has ever occurred in Town and Village of Laurens. The possibility of a low-level release exists, especially along county routes throughout the Town and Village. Any storage of radioactive material in the Town and Village of Laurens is in small quantities of low levels. Packing requirements for transportation of radioactive materials would most likely prevent release, even in the event of a transportation accident. If a transportation accident involving radioactive materials were to occur, unnecessary panic by residents in the immediate area would be the greatest concern. Clean up costs would most likely be small and public health would most likely not be threatened any more than natural radiation affects living things.

DROUGHT:

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: More Than Two Weeks

Impact:

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

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

Profile/Vulnerability Assessment: The Town and Village of Laurens has minor droughts every couple of years. Most recently there were drought warnings issued by the National Weather Service in 1999, 2000, and 2001. Droughts that impact private well supplies, agriculture, and wildfire risks are likely to occur, on the average of every two years.

Even though New York normally possesses an adequate water supply with sufficient annual precipitation to replenish surface- and ground-water resources, the region is still susceptible to periods of drought. In Laurens, all private and some public water supplies are from wells and springs. Ground water is the source of water for a majority of public water supplies.

Drought periods progress through stages and drought intensity may vary considerably during drought period. The time of occurrence and duration can cause significant

variations in drought impacts. The initial impact of drought is likely to be felt by agriculture and those relying on private wells. Agriculture faces major losses when soil moisture cannot be maintained and when sufficient water is not available for livestock. If it becomes necessary to impose mandatory water use restrictions or import water, additional economic impacts will occur. Some businesses and industry may be affected by reduce revenues resulting from increasingly severe restrictions on nonessential water uses. The potential costs associated with a severe drought include the cost of replacing private wells with deeper wells and agriculture damages.

TERRORISM:

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Four days to One Week
Recovery Time: One to Two Weeks

Impact:

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

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

Profile/Vulnerability Assessment:

ICE JAM:

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: One Day Warning
Hazard Duration: Two to Three Days
Recovery Time: One to Two Days

Impact:

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

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.

Profile/Vulnerability Assessment: An ice jam in a river or stream effectively forms a hanging dam that can block flow and cause water to back up. The flooding caused by an ice jam will persist until the ice breaks up, either naturally or as a result of human intervention. The resulting flood damages would be localized. Areas along streams where debris jams have developed at bridges and culverts could experience similar flooding and erosion problems due to ice jams.

Ice jam flooding in the Town and Village of Laurens has the potential to impact several residents. The maximum expected losses would be less than a major flood and most likely be less than \$200,000.00 to private property. The largest potential impact would be to public facilities such as roads and bridges with costs escalating into the millions of dollars.

LOW HAZARDS

One hazard was determined to be low, this is Blight.

BLIGHT:

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: More than One Week Warning

Hazard Duration: More Than One Week

Recovery Time: More Than Two Weeks

Impact:

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

Definition: A disease of agricultural crops or non-agricultural plants resulting in withering, lack of growth, and death of its parts without rotting.

Profile/Vulnerability Assessment: Blight poses a large threat to the Town and Village of Laurens. The agricultural industry plays a vital economic role in Laurens. A severe blight could have the potential to destroy several thousand acres of crops. Although there has not been a history of blight, the potential still exists.

Each of the 24 risks was then identified according to their effect on the municipality during the time of year they would normally occur and noting any fluctuation of population during the different times of year. The Town/Village of Laurens is not recognized as having a significant population change from tourist influx. The constant population based on the 2000 census for both Town and Village is 2,679 representing a 2.2% increase for the Town and a -2.2% decrease for the Village from the year 1990.

The following information is based on “Otsego County Data Book” based on 2000 census information provided by the County planning department, real property tax department aerial.

Housing values were established by identifying numerous locations throughout the Town/Village by utilizing the county GIS mapping system to gather assessed values. Calculations were made by samples of assessed value of residential vs. commercial along with an average square footage. The average assessment for a residential property in the Town/Village of Laurens calculated to \$ 251,328 with an average square footage of 2,176. The replacement cost of \$77 per square foot was used for the residential households. The average residential replacement value was established at \$ 167,582 x 50% content value = \$ 251,328. The average replacement value including displacement value for commercial property was estimated using an average square footage of 3,336 multiplied by \$67 per sq. foot for replacement value and 100% for content value with a \$30 per sq. foot for displacement. The average full replacement value \$ 547,104. The value of active farms with total replacement and displacement values is estimated at \$ 1.3 million per farm.

A list of critical buildings and infrastructure can be found in Appendix F-2 & D.
 A summary of replacement values and content value for the listed critical structures is as follows:

<u>Critical Facilities</u>	<u>Bld. Value</u>	<u>Replacement Value</u>	<u>Content Replacement</u>
Laurens FD	\$ 458,200	\$ 428,090	\$1.0 m (150%)
Laurens CS	\$ 6,913,800	\$ 4.3 m	\$ 8.7 m (100%)
Lauren Library	\$ 61,000	\$ 127,036	\$ 254,072 (100%)
Amer. Legion	\$ 90,200	\$ 425,784	\$ 851,568 (100%)
Masonic Lodge	\$ 37,100	\$ 467,255	\$ 934,510 (100%)
Town Hwy.	\$ 38,700	\$ 605,968	\$ 1.2 m (100%)
Town Hall	\$ 81,100	\$ 343,992	\$ 687,984 (100%)
Post Office	\$ 109,700	\$ 154,352	\$ 308,704 (100%)
Bus Garage	\$ 120,500	\$ 292,424	\$ 584,848 (100%)
H2O Treatment Plant	\$ 32,700	\$ 38,456	\$ 76,912 (100%)
Lutheran Church	\$ 109,900	\$ 392,110	\$ 784,220 (100%)
Mt. Vision Fire Dept.	\$ 59,600	\$ 359,290	\$ 888,225 (150%)
Mt. Vision PO	\$ 77,900	\$ 120,472	\$ 240,944 (100%)
Mt. Baptist Church	\$ 152,100	\$ 233,345	\$ 466,690 (100%)
Mt. Vision Methodist	\$ 122,300	\$ 132,888	\$ 265,776 (100%)
W. Lauren FD	\$ 52,700	\$ 166,920	\$ 417,300 (150%)
W. Lauren Church	\$ 25,600	\$ 140,007	\$ 280,014 (100%)

Replacement values were determined using the Average building replacement value per square foot found in the how-to guide for the state and local mitigation planning workbook section 3-10.

The percent damage for structural loss was calculated for each using the available historical data and worksheets from the mitigation-planning guide. Where loss values were not available, full value was used.

The following summary identifies the results of the survey for the hazards most likely to occur. Certain hazards are speculative and never occurred historically. These hazards were assessed as being random and having the potential of affecting the entire town.

The following summary identifies the results of the survey for the hazards most likely to occur. Certain hazards are speculative and never occurred historically. These hazards were assessed as being random and having the potential of affecting the entire town.

Inventory Totals for the Town/Village of Laurens – represented in millions (m)
High and Moderately High Hazards

Occupancy Class	Total Assets	Utility Failure	Winter Storm	Severe Storm	Ice Storm	Fire	Flood	Hazard Fixed	Hazard Transp.	Tornado
Residential	1275 (320 m)	1275	1275	1275	1275	192 (15%)	12	9	109	1275
Comm./Tourist	25 (13.6 m)	25	25	25	25	16 (64%)	0	0	8	25
Ind./Medical	0	0	0	0	0	0	0	0	0	0
Agricultural	9 (11.7m)	9	9	9	9	4 (45%)	0	9	4	9
Religion/non-profit	7 (3.8m)	7	7	7	7	4 (58%)	1	0	1	7
Government	12 (5.4m)	12	12	12	12	3 (25%)	1 bridge	0	1	12
Educational	1 (8.7)	1	1	1	1	1 (100%)	1	0	0	1
Utilities	0	0	0	0	0	0	0	0	0	0
Gas Stations	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
No. of bldgs.	1329	1329	1329	1329	1329	220 (17%)	14	9	16 (2%)	1329
Approx. Value (\$M)	363.2 m	363.2 m	\$50,000-1million per episode	\$50,000-1million per episode	\$50,000 per episode	73.8 m (21%)	1.5-2 million (1%)	34.3 m (10%)	40.1 \$10,000-\$50,000	< 1 million
# of People	7229	7229	7229	7229	7229	1817 (26%)	30 (1%)	36 (1%)	333 (5%)	7229

Italicizes are random in nature and could affect any portion or the entire community

1. Population for Laurens Central School reflects enrollment statistics.
2. Estimated loss from utility failure and storms (winter, Severe and Ice) are based on historical data from surrounding communities. In general all structures and populations would be affected by these instances, but structural damage will be limited; the majority will be from loss of production and or clean up.
3. Shaded flood column represents current estimates from the flood of June 2006
4. Losses from extreme temperatures are not anticipated to cause structural damage. Losses are an estimated amount from hospitalizations and medical emergencies.
5. Losses due to an explosion are estimates only since no historical documentation exist. Therefore the entire community was considered at risk with a maximum potential of damage.
6. Estimates for earthquake damage reflect the entire Town and Village. Due to lack of any historical records causing significant amounts of damage from an earthquake, losses are considered minimal.

7. Estimates from fixed hazardous sites are focused on the agricultural locations of the Town /Village with the concept of the potential from stored fertilizer etc. creating an explosive and toxic condition.
8. Estimates from oil spills and hazardous transports were focused on the NYS #23 and 205 corridors. Properties along these corridors were identified and the estimated impact to be the entire corridor was identified. Damages from loss were generated from DEC estimates for oil spill clean-ups, and reflect a single episode.

Inventory Totals for the Town/Village of Laurens – represented in millions (m)
High and Moderately High Hazards Continued

Occupancy Class	Total Assets	Wild Fire	Dam Failure
Residential	1275 (320 m)	192	minimal
Comm./Tourist	25 (13.6 m)	16	0
Ind./Medical	0	0	0
Agricultural	9 (11.7m)	4	0
Religion/non-profit	7 (3.8m)	4	0
Government	12 (5.4m)	2	Bridges And roads
Educational	1 (8.7)	1	0
Utilities	0	0	0
Gas Stations	0	0	0
Other	0	0	0
No. of bldgs.	1329	219	Minimal
Approx. Value (\$M)	363.2 m	73.7 m (21%)	< 1 m
# of People	7229	1,241 (18%)	minimal

Italicizes are random in nature and could affect any portion or the entire community

Shaded columns represent historical documentation

1. Severe storm, winter storms and ice storm data is based on historical occurrences with the assumption the potential for all residents of the town does exist.
2. Calculated loss is based on historical or total value. Including content.
3. The approximate value for winter storms represents historical data from the storm of December 2002 and January 2003 in which FEMA granted \$65,000 for snow removal.
4. Flood estimates are based on the June 2006 estimates from the municipality..

5. Damages from Dam Failure from historical information, indicates the majority of the damage is to roads and bridges. Estimates are compared to the recent flood expenses.
 6. Estimates for Transportation Accidents focused on the NYS Rt. #23 and #205 corridor.
-

Inventory Totals for the Town/Village of Laurens – represented in millions (m)
Mod. Low to Low

Occupancy Class	Total Assets	H2O Cont.	Ice Jam
Residential	1275 (320 m)	1275	12
Comm./Tourist	25 (13.6 m)	25	0
Ind./Medical	0	0	0
Agricultural	9 (11.7m)	9	0
Religion/non-profit	7 (3.8m)	7	1
Government	12 (5.4m)	12	1 bridge
Educational	1 (8.7)	1	1
Utilities	0	0	
Gas Stations	0	0	0
Other	0	0	0
No. of bldgs.	1329	1329	14
Approx. Value (\$M)	363.2 m	363.2 m	< 1 m
# of People	7229	7229	30 (1%)

Italicizes are random in nature and could affect any portion or the entire community

1. Estimated loss from Water contamination would affect the entire community, with minimal structural damage. Damages would be infrastructure to plumbing and water mains through the community. Due to lack of historical data, estimates were based on total loss.
2. Estimates for drought were considered as the maximum production loss from agricultural properties. The potential structural damage from a drought situation is unlikely.
3. Damages from Ice jams are estimated in the same location of the potential flood area. Loss is not as great as flooding

SECTION 5 – MITIGATION GOALS AND ACTIONS

The below table highlights actions established by the Town and Village of Laurens that address new and existing buildings within the community. The committee for the Town and Village of Laurens was responsible for identifying actions that would mitigate impacts on both future and existing structures located within all hazard areas. The left column lists all the actions and hazards identified by the community. The actions are abbreviated and can be looked up in the following pages. Those actions that are marked with a XX are those actions that relate to new structures, existing structures or both.

Mitigation Actions and Projects Addressing New/Existing Buildings and Infrastructure

Addresses the Effect of Hazards on:

	<u>New Buildings and Infrastructure</u>	<u>Existing Buildings and Infrastructure</u>
<u>Action by Hazard</u>	<i>Requirement 201.6(c)(3)(ii) B</i>	<i>Requirement 201.6(c)(3)(ii) C</i>
<u>All Hazards</u>		
1.1 Improve education program....		
1.2 Improve dissemination of emergency warnings		
1.3 Make All-Hazards Mitigation Plan available		
1.4 Encourage local official participation in hazard...		
1.5 Be available to assist schools with fire drills		
2.1 Provide municipal officials with periodic training...		
2.2 Periodically test all emergency communication...		
2.3 Periodically verify that schools, nursing homes,...		XX
2.4 Improve/maintain communication between Town Highway Department		
2.5 Create a local Emergency Response Plan...		
3.1 Periodically review and update the list of critical facilities serving the Town and Village	XX	XX
3.2 Ensure that critical facilities are able to provide essential services during a power outage.		
4.1 Invite municipal elected officials to meetings...		
4.2 Maintain and expand public/private sector...		
<u>Severe Weather</u>		
1.1 Maintain trees along municipal right-of-ways		XX
1.2 Support/encourage utility companies to maintain trees near telephone and power lines	XX	XX
1.3 Locate/create educational information about maintenance of trees adjacent to structures		

1.4Provide brush pickup services...		
1.5Recommend underground utilities new developments..	XX	
2.1Encourage Code Officer receives annual training and political support...		
2.2Encourage Code Officer to inspect older buildings...		XX
3.1Improve monitoring of weather conditions...		
3.2 review plowing schedules and hazardous weather response procedures...		
3.3 highway department and emergency service providers work together...		
Utility Failure		
1.1 Explore means to help offset costs to obtain...		
1.2 Explore means to offset costs to upgrade...		
Non-Hazardous Material Fire, Explosion, Wildfire		
1.1Continue education public on carbon monoxide...		
1.2Identify, create and maintain firebreaks near structures close to forested areas with steep slopes.	XX	XX
1.3 fire department to inventory accessible water...		
1.4 Work with fire departments to develop written, shared fire fighting tactics...		
Transportation Accident		
1.1 Raise public awareness about traffic issues by participating...		
1.2 periodically survey approved traffic control devices...		
1.3 Provide municipal personnel with opportunities to participate...		
1.4 Work with NYSDOT to fix locations with accidents...		
1.5 Target law enforcement efforts at high accident..		
2.1 Should promote development patterns in which...		

2.2 Use Comprehensive plans and land use regulations to encourage interconnection...		
2.3 Plan to eliminate at-grade railroad crossings...		
3.1 Ensure that emergency personnel periodically evaluate the need for alternate routes...		
3.2 Annually update the Town and Village plans that relate to transportation events		
Flood		
1.1 Annually checked locations of "flood zone regulations in effect "signs...		
1.2 Disseminate and improve flood informational...		
1.3 Target property owners with structures in floodplain with education material...		XX
1.4 Educate property owners adjacent to streams about proper stream maintenance.		XX
2.1 Study, develop, and implement projects for...	XX	XX
3.1 make improvements to roads to help minimize road closure due to hazard		
4.1 routine inspections and maintenance of streams...		
4.2 Develop and implement a strategy for maintenance of privately owned storm water...		XX
5.1 Evaluate opportunities to alleviate flooding problems....	XX	XX
5.2 Develop and implement a strategy for replacing...	XX	XX
5.3 Educate/assist owners with mitigation measures from flood risks		XX
6.1 Improve communication with private dam owners and encourage dam inspection		
6.2 Develop an Emergency Action Plan for...		
6.3 participate in review and exercises in relation to Emergency plans in event of dam failure...		
6.4 Develop mapping and inspection procedure for monitoring beaver dams		
Hazardous Materials/Fire		
1.1 Educate residents on evacuation procedures...		

2.1 Obtain hazardous material training for first responders periodically.		
2.2 first responders annually inventory their equipment		
2.3 Encourage fire department to maintain up-to-date information about hazardous materials...		
2.4 Work with Otsego Farm Bureau to encourage safe storage practices for hazardous materials on agricultural operations.		
2.5 Work with Bassett Hospital to ensure that medications and equipment needed to treat exposure to hazardous materials are accessible.		
3.1 highway construction projects consider drainage...		
3.2 Work with owners of facilities that store and/or utilize hazardous materials to safely store and handle such materials		XX
3.3 Encourage comprehensive plans and land use...		XX
<u>Ground Movement</u>		
1.1 offer annual training and political support for Code officers in order to enforce structural standards...		
<u>Drought</u>		
1.1 identify back-up wells in the Town to be used for alternative water supply...		XX
1.2 Work with Otsego County Farm Bureau		
1.3 Continue work with NYSEMO to provide water pumps...		

The purpose of the Town and Village of Laurens Multi-Hazard Mitigation Plan is to develop and promote methods of protecting residents, critical facilities, private property, infrastructure, and the environment from the results of a natural hazards.

The mitigation approach for the Town and Village of Laurens follows the model provided in the FEMA how go guide *Developing the Mitigation Plan: Identifying Mitigation Actions and Implementing Strategies* (FEMA 386-3). Establishing the Town and Village of Laurens mitigation actions a series of steps was taken by the local committee such as developing mitigation goals, analyses of all actions influence economically and socially on the community which grouped them based on their outcome, and constructing an implementation strategy.

Town and Village of Laurens goals were identified in order to mitigate exposures to each hazard. The goals for the Town and Village of Laurens are based on the Risk Assessment including numbers of structures and residents affected by each hazard, and the estimate amount in damage to both public and private properties. Reviewing the possible damages from identified hazards and the availability of resources in the Town and Village of Laurens the committee established the goals on the following pages as a method of mitigating the impacts from future mishaps.

The purposes of mitigation actions are to achieve the long –term goal set by the Town and Village and Town of Laurens committee. For each identified hazard the committee established possible mitigation actions. The established actions were based on long-term goals, concerns from members of the community, and data provided from the Risk Assessment. Each action has been thoroughly considered and prioritized into three different categories high, medium, or low. The options follow the six types of mitigation actions stated in the FEMA guide (FEMA 386-3), which are found below.

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

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

Each action produced from the criteria established by FEMA was then evaluated and prioritized under social, technical, administrative, political, legal, economic, and environment (STAPLEE) considerations along with the cost to benefit outcome **and time** for the community.

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

Mitigation activity priorities also are based on “the extent to which benefits are maximized according to a cost benefit review” (DMA 2000). For example, low cost activities that support cross-jurisdiction and multi-hazard benefits are assigned a high priority in some cases, based on the cost/benefit review. Also, a number of high priority

mitigation activities focus on public awareness and education programs or integrating the mitigation plan into current programs because these types of mitigation measures are affordable, achievable, can address multiple hazards and have an immediate benefit. Although detailed economic and social analyses for each mitigation action is beyond the scope and intent of this plan, consideration was given to the potential costs incurred and benefits derived from each proposal based in part on the personal and professional experiences of the members of the planning committee. The process then considered whether or not estimating a feasible dollar value could be associated with each action at this time. In instances where reasonable costs could not be associated with an action, estimates would be developed as sufficient information becomes available.

On June 26, 2006 Otsego County experienced a severe storm with unprecedented flooding of the Susquehanna River and many of its tributaries. The county was declared a state of emergency (FEMA 1650 DR NY). Estimated damages were in the \$50 million dollar range. The following is taken from the National Environmental Satellite, Data and Information Service (NESDIS).

Event Record Details

Event: Flash Flood	State: New York
Begin Date: 27 Jun 2006, 02:00:00 PM EST	
Begin Location: Countywide	County: Otsego
End Date: 28 Jun 2006, 02:00:00 PM EST	
End Location: Countywide	
Magnitude: 0	
Fatalities: 0	
Injuries: 0	
Property Damage: \$ 50.0M	
Crop Damage: \$ 0.0	

Description:

Widespread heavy rain moved through Otsego County and upstate New York during the day Monday with more heavy rain Monday night and Tuesday morning. This rainfall saturated the soils before another more widespread area of heavy rainfall occurred Tuesday afternoon and night. Tropical moisture combined with a slow-moving front and low-pressure system moving up the eastern seaboard to bring extreme rainfall to Otsego County. The serious flash flooding began in Otsego County during the afternoon of Tuesday the 27th and continued until Wednesday afternoon as a total of 6 to 12 inches of rain fell by Wednesday the 28th. The highest rainfall was near Unadilla where the Susquehanna River reached record levels. No one was killed from the floods in

Otsego County. A state of emergency was declared Tuesday afternoon as all roads were closed. The sewer plant in Oneonta was flooded sending raw sewage into the Susquehanna River. Hardest hit areas were Leonardsville, Cooperstown, Hartwick, Bridgewater and Oneonta. Route 20 was under nearly three feet of water in East Winfield. Total damage is estimated at 50 million dollars. This was described as the worst flooding in at least 45 years. A total of 75 roads were flooded in the county.

As result of the June flood assorted actions are already in progress and others have been proposed. The majority of repairs are to damaged roads and bridges to sustain future events and avoid losses previously experienced. Realistically, considering Otsego County frequent floods, 40 occurrences since 1993, mitigation action potentially will reduce the dollar amount in damages and in return the community would benefit in the future from present costs.

Findings from the Risk Assessment identified natural hazards and their economic damage to the community, including replacement value, content value and displacement value. After detailed evaluation, each action was prioritized high, medium, or low based on effectiveness, importance, and cost results.

- * High Priority Actions- reduces vulnerability to damage, eliminate eminent danger, environmentally safe, easy enacted, within standing budget, community support.
- * Medium Priority Actions- some extent protect community, obstacles implanting, some community discrepancy
- * Low Priority Actions- ineffective mitigation hazard impacts, unaffordable, and unfavorable within the community

The Town and Village of Laurens have analyzed natural and human-caused hazards and have devised this plan to protect life and property from such events. The Town and Village of Laurens have outlined the following approach to reduce the impact of the highest priority hazards that were identified previously. Lower priority hazards may have additional specific goals and actions, but are primarily covered under the "All Hazards" goals. Actions are prioritized as high or medium depending on the ease of implementation, cost, and overall timeliness/necessity of the action. Time to implement an action is estimated based on; the complexity of the action, amount of preplanning needed to undertake the action, cost, and the likelihood of obtaining funding. Responsibility for an action is indicated as lead and supporting. In some cases, multiple lead agencies/municipalities are identified.

Multi-Hazard Mitigation *All Hazards*

GOAL ONE: Continue ongoing efforts to increase public awareness about hazards.

- **ACTION 1.1-** Improve education program about hazards and family disaster planning, emergency supplies, evacuation procedures, transportation safety, and hazard mitigation. Education program can include video, printed material for general circulation, direct mailing, training sessions, and organized events.

PRIORITY: High

TIME: Ongoing annually

LEAD: Fire Departments/ Schools/Supporting Community Agencies

SUPPORTING: Town/County Planning/County Health/County Sheriff/County OES

COST: Provided through existing budgets and additional grant sources

- **ACTION 1.2** -Improve dissemination of emergency warnings and weather information to residents, businesses, and institutions by increasing use of NOAA Weather Radios and increasing use of National Weather Service - Albany web site for latest weather information. If duplication does not exist, work with SEMO on Emergency Alert System.

PRIORITY: High

TIME: Ongoing annually

LEAD: Town/Village/Fire Departments

SUPPORTING: County OES/County Planning

COST: Provided through existing budgets and additional grant sources

- **ACTION 1.3** - Make the Town and Village of Laurens All Hazards Mitigation Plan available to the public at town and village offices, public libraries, local fire departments, County Office of Emergency Services, and County Planning.

PRIORITY: High

TIME: Immediately after adoption/revision

Lead: Town/Village Clerk

SUPPORTING: County Planning/County EMO

COST: Provided through existing budgets and additional grant sources

- **ACTION 1.4** -Encourage local official participation in hazard related training offered at County, State, Federal levels.

PRIORITY: High

TIME: Ongoing annually

LEAD: County Health/County Sheriff/County OES/County Planning

SUPPORTING: Town/Village Board

COST: Provided through existing budgets and additional grant sources

- **ACTION 1.5** - Be available to assist schools with fire and weather hazard drills.

PRIORITY: High

TIME: Ongoing annually

LEAD: Fire Department

SUPPORTING: County Health/County Sheriff/County OES

COST: May vary per drill.

GOAL TWO: Provide emergency services in a timely and effective manner

- **Action 2.1** – Provide municipal officials with periodic training and responsibilities during hazard events.

PRIORITY: High

TIME: Once every two years

LEAD: Town/Village Board

SUPPORTING: NYSEMO//County Sheriff/County OES

COST: Minimal

- **Action 2.2** – Periodically test all emergency communication equipment and upgrade/replace as appropriate.

PRIORITY: High

TIME: Once annually

LEAD: Local Fire Departments/ Local Highway Departments

SUPPORTING: County OES/ County Health/County Sheriff

COST: May vary depending on necessary upgrades/replacements

- **Action 2.3** – Periodically verify that schools, nursing homes, hospitals and businesses that handle hazardous materials have current emergency response plans in effect.

PRIORITY: High
TIME: Once every three years
LEAD: County OES/County Health
SUPPORTING: Town/Village
COST: Minimal

- *Action 2.4* – Improve/maintain communication between Town and Village Highway Departments and Town and Village Boards to enable coordinated maintenance of emergency transportation routes.

PRIORITY: High
TIME: Ongoing Annually
LEAD: Town/Village Board/Town Highway Department
SUPPORTING: County Highway/County OES /County Health
COST: Will vary depending on equipment needed.

- *Action 2.5* – Create a local Emergency Response Plan consistent with the County Comprehensive Emergency Operations Plan.

PRIORITY: High
TIME: Within the first five years after plan adoption
LEAD: Town/Village Board
SUPPORTING: County Sheriff/County OES/Town Fire Department
COST: Minimal

GOAL THREE: Maintain the viability of all critical facilities and operations

- *Action 3.1* – Periodically review and update the list of critical facilities serving the Town and Village.

PRIORITY: High
TIME: Ongoing Annually
LEAD: Town/Village
SUPPORTING: County Sheriff/County OES/County Planning
COST: Minimal

- *Action 3.2* – Ensure that critical facilities are able to provide essential services during a power outage.

PRIORITY: High
TIME: Within first five years
LEAD: Town/Village
SUPPORTING: County OES
COST: May vary depending on necessary equipment and grant availability

GOAL FOUR: Maintain support (political and private sector) for hazards mitigation and emergency response.

- **Action 4.1** – Invite municipal elected officials to meetings of the Town and Village of Laurens Hazard Mitigation Committee to guide implementation of this plan and the revision of the plan.

PRIORITY: High

TIME: Annually

LEAD: Town/Village Clerk

Supporting: County OES/County Sheriff/Town/Village

COST: Minimal

- **Action 4.2** - Maintain and expand public/private sector coordination through organizations that are actively involved in hazard reduction activities.

PRIORITY: Medium

TIME: Ongoing

LEAD: Town/Village

SUPPORTING: County OES/County Hazard Mitigation Committee

COST: Minimal, grant dependent

Severe Weather

(Severe Storm, Severe Winter Storm, Ice Storm, Tornado, Extreme Temperatures)

GOAL ONE: Minimize damage from trees to utilities, structures, and other utilities 5-11

- **Action 1.1** - Maintain trees along municipal right-of-ways

PRIORITY: High

TIME: Ongoing Annually

LEAD: Town Highway Department

SUPPORTING: NYSDOT/County Highway

COST: Depends on project scope. May be handled by existing budgets or grant availability

- **Action 1.2** - Support/encourage utility companies to maintain trees near telephone and power lines.

PRIORITY: High

TIME: Ongoing Annually

LEAD: Town/Village

SUPPORTING: County Highway/County OES/County Planning

COST: Borne by utility companies.

- **Action 1.3** - Locate/create educational information about maintenance of trees adjacent to structures.

PRIORITY: Medium

TIME: Within first five years

LEAD: Town and Village Residents

SUPPORTING: Town and Village Boards/County OES/County Planning

COST: Minimal

- **Action 1.4** - Provide brush pickup services and/or designated drop off locations (chip/mulch/compost) to encourage tree maintenance and to discourage improper disposal of yard debris in drainage ways.

PRIORITY: High

TIME: Annually

LEAD: Town/Village

SUPPORTING: County Board of Representatives/County Planning/County OES

COST: Handled by existing budgets

- **Action 1.5** - Recommend, encourage, or require underground utilities in new developments if feasible through land use regulations. Encourage utility companies to use underground construction methods if feasible.

PRIORITY: Medium

TIME: Ongoing Annually

LEAD: Town/Village Board

SUPPORTING: Town Planning Board/County Planning/County Codes

Enforcement

COST: Planning – Minimal. Project costs will vary.

GOAL TWO: Ensure that buildings are able to withstand high wind and heavy snow

- **Action 2.1** – Encourage Code Enforcement Officer to receive annual training and political support in order to effectively enforce the structural standards in the International Building Code.

PRIORITY: High

TIME: Ongoing Annually

LEAD: Town/Village

SUPPORTING: County Codes

COST: Varies

- **Action 2.2** - Encourage Code Enforcement Officer to inspect older buildings that may not conform to the structural standards in the International Building Code so as to identify vulnerabilities for their owners.

PRIORITY: High
TIME: Ongoing Annually
LEAD: Town/Village
SUPPORTING: County Codes/County Planning/County Board of Representatives/NYSDOS
COST: Existing budgeted salary for Codes Enforcement Officer.

GOAL THREE: Reopen transportation routes as quickly as possible following a severe weather event

- **Action 3.1** - Improve monitoring of weather conditions and forecasts (on-line information) by highway departments to enable timely response to snow, ice, and high water conditions.

PRIORITY: High
TIME: Ongoing Annually
LEAD: Town Highway Department
SUPPORTING: County Planning/County OES/County Highway/NYSDOT
COST: Varies depending on new equipment needed

- **Action 3.2** - Periodic review and revision of plowing schedules and hazardous weather response procedures by highway department to minimize time required to restore safe roadways.

PRIORITY: High
TIME: Ongoing Annually
LEAD: Town Highway Department
SUPPORTING: County Highway/County Planning/County OES/NYSDOT
COST: Minimal

- **Action 3.3** – Ensure that highway department and emergency service providers work together to provide emergency service transportation during inclement weather.

PRIORITY: High
TIME: Ongoing Annually
LEAD: Town/Village
SUPPORTING: County OES/County Highway/County Planning
COST: Minimal

Utility Failure

GOAL ONE: Reduce possibility/impact of utility failure

- **Action 1.1** - Explore means to help offset costs to obtain and maintain generators for schools, commercial businesses, and agriculture industry.

PRIORITY: High

TIME: Ongoing annually

LEAD: Town/Village

SUPPORTING: County OES/County Planning/County Sheriff/School District

COST: Grants

- **Action 1.2** - Explore means to help offset costs to upgrade existing sewer, water and communications infrastructure in the Town and Village.

PRIORITY: High

TIME: Once every two years

LEAD: Town/Village

SUPPORTING: County OES/County Planning/County Health Department

COST: Grants

Non-Hazardous Material Fire, Explosion, Wildfire

GOAL ONE: Lessen chances and impacts of fire related damage, injuries, and deaths

- **Action 1.1** - Continue ongoing education of public on use of carbon monoxide detectors, fire detectors, fire extinguishers and fire prevention/safety.

PRIORITY: High

TIME: Ongoing Annually

LEAD: Town/Village Fire Department

SUPPORTING: County OES

COST: Existing budgets/grant sources

- **Action 1.2** - Identify, create and maintain firebreaks near structures close to forested areas with steep slopes.

PRIORITY: High

TIME: Within the first five years after plan adoption

LEAD: Fire Departments

SUPPORTING: County OES

COST: Varies depending on size of firebreaks

- **Action 1.3** - Work with fire departments to inventory accessible water supplies for fire protection and develop a dry hydrant program to make water more accessible in rural areas.

PRIORITY: High

TIME: Within the first five years after plan adoption

LEAD: Fire Departments

SUPPORTING: County OES

COST: Existing budgets

- **Action 1.4** - Work with fire departments to develop written, shared fire-fighting tactics for areas where large or multiple structure fires are possible.

PRIORITY: High

TIME: Within the first five years after plan adoption

LEAD: Fire Departments

SUPPORTING: County OES

COST: Existing budgets

Transportation Accident

GOAL ONE: Promote transportation safety and maintain and upgrade roads in a manner that promotes transportation safety

- **Action 1.1** - Raise public awareness about traffic safety issues by participating in outreach efforts and disseminating safety information.

PRIORITY: High

TIME: Ongoing Annually

LEAD: Town/Village

SUPPORTING: County Traffic Safety Board/County OES/County Sheriff

COST: Varies depending on outreach method.

- **Action 1.2** - Periodically survey approved traffic control devices (signs, markers, signals, etc...) by highway departments.

PRIORITY: High

TIME: Ongoing Annually

LEAD: Town/Village

SUPPORTING: NYSDOT

COST: Varies depending on upgrades needed.

- **Action 1.3** – Provide municipal personnel with opportunities to participate in current defensive driving programs in County.

PRIORITY: High

TIME: Ongoing Annually

LEAD: Town/Village

SUPPORTING: County OES/County Sheriff

COST: Existing budgets

- **Action 1.4** - Work with NYSDOT to fix locations with accidents above the statewide average.

PRIORITY: High
TIME: Ongoing Annually
LEAD: Town/Village
SUPPORTING: NYSDOT
COST: Varies depending on project.

- *Action 1.5* - Target law enforcement efforts at high accident locations and times.

PRIORITY: High
TIME: Ongoing Annually
LEAD: Town/Village
SUPPORTING: County Sheriff/NY State Police
COST: Existing budgets

GOAL TWO: Design and locate new development projects to promote transportation safety

- *Action 2.1* - Promote development patterns in which major transportation routes are located away from major population areas, schools, and gathering areas (through the use of comprehensive plans and land use regulations).

PRIORITY: High
TIME: Ongoing Annually
LEAD: Town Planning Board
SUPPORTING: County Planning
COST: Minimal

- *Action 2.2* – Use comprehensive plans and land use regulations should encourage interconnection of commercial properties in order to reduce use of major arterials.

PRIORITY: Medium
TIME: Ongoing Annually
LEAD: Town/Village
SUPPORTING: County Planning
COST: Minimal

Action 2.3 - Plan to eliminate at-grade railroad crossings on State Routes and County Roads when road upgrades or other construction projects are developed.

PRIORITY: Medium
TIME: Ongoing Annually
LEAD: NYSDOT
COST: Varies depending on project scope. State/Federal grant funds may be possible.

GOAL THREE: Provide timely response by emergency personnel to major transportation accidents.

- **Action 3.1** – Ensure that emergency personnel periodically evaluate the need for alternate access routes to areas that may become isolated if a bridge, railroad crossing, or other transportation route becomes blocked. Find alternative solutions for gaining access if problem areas are identified.

PRIORITY: Medium

TIME: Ongoing Annually

LEAD: Town/Village Emergency Services/County OES

SUPPORTING: County Sheriff

COST: Varies depending on project scope. State/Federal grant funds may be possible.

- **Action 3.2** - Annually update the Town and Village plans that relate to transportation events.

PRIORITY: Medium

TIME: Ongoing Annually

LEAD: Town/Village

SUPPORTING: County OES

COST: Existing Budgets.

Flood

(Flood, Ice Jam, Dam Failure)

GOAL ONE: Educate public about flood dynamics, flood hazards, flood safety, and flood mitigation

- **Action 1.1** - Annually check location of "flood zone regulations in effect" signs and keep locations up to date in accordance with existing Special Flood Hazard Areas as indicated on the Flood Insurance Rate Map.

PRIORITY: High

TIME: Once Annually

LEAD: Town Planning Board

SUPPORTING: County OES/County Planning/County Highway/NYS DOT

COST: Minimal, NYSDOT will move signs as needed

- **Action 1.2** - Disseminate and improve flood informational pamphlets for new buyers of property and general public.

PRIORITY: High

TIME: Ongoing Annually

LEAD: Town/Village

SUPPORTING: Municipal Flood Plan Administrator/County OES/County Planning

COST: Minimal

- **Action 1.3** - Target property owners with structures in floodplain with education material and increase flood awareness locally (especially with early warning procedures).

PRIORITY: High

TIME: Once every two years

LEAD: Town/Village

SUPPORTING: County Planning/County OES

COST: Minimal

- **Action 1.4** - Educate property owners adjacent to streams about proper stream maintenance.

PRIORITY: High

TIME: Ongoing Annually

LEAD: Town/Village

SUPPORTING: County Soil and Water Conservation District/County Planning/County EMO

COST: Minimal

GOAL TWO: Minimize stream bank erosion and improve water quality

- **Action 2.1** - Study, develop, and implement projects for stabilizing stream channels in locations where erosion threatens development or agricultural resources.

PRIORITY: High

TIME: Ongoing with first decade of plan adoption

LEAD: Town/Village

SUPPORTING: County Soil and Water/NRCS/County Highway/County Planning/County OES

COST: Varies depending on the length of stream to be studied or size of problem.

GOAL THREE: Decrease flooding/ice jam impacts on roads with repetitive events

- **Action 3.1** - Encourage NYSDOT to make improvements to roads and streets to help minimize road closure due to ice jams and flooding.

PRIORITY: High

TIME: Within five years of plan adoption

LEAD: Town Highway Department

SUPPORTING: County Highway/County OES/ County Sheriff/County OES
COST: Will vary depending on project scope.

GOAL FOUR: Maintain streams, drainage ways, and drainage structures to minimize the potential for obstruction of flow.

- **Action 4.1** – Develop routine inspections and maintenance of streams, roadside ditches, and drainage ways in order to reduce the potential for flooding caused by debris obstructions/sedimentation

PRIORITY: High

TIME: Within five years of plan adoption

LEAD: Town Highway Department

SUPPORTING: County Highway/County OES/ County Planning

COST: Will vary depending on project scope.

- **Action 4.2** - Develop and implement a strategy for maintenance of privately owned storm water drainage systems and secondary stream channels.

PRIORITY: High

TIME: Within five years of plan adoption

LEAD: Town Highway Department

SUPPORTING: County Planning/County EMO/ County Soil and Water/County Highway/Private property owners

COST: Currently unknown. Existing budgets.

GOAL FIVE: Mitigate flood risks for existing development

- **Action 5.1** - Evaluate opportunities (and implement as appropriate) to alleviate flooding problems by retaining or retarding water upstream through wetland creation/retention structures during high flow.

PRIORITY: High

TIME: Within five years of plan adoption

LEAD: County Planning/ County Soil and Water/County OES/NRCS/Otsego Land Trust

SUPPORTING: Town

COST: Maintenance and projects will vary depending on scope.

- **Action 5.2** - Develop and implement a strategy for replacing undersized bridges and culverts on public roadways and on private property.

PRIORITY: High

TIME: Within five years of plan adoption

LEAD: Town Highway Department

SUPPORTING: County Highway/NYS DOT/Private property owners

COST: Planning- None; Project costs will vary

- **Action 5.3** - Educate/assist property owners with implementation of measures that will protect existing development from flood risks (elevation of utilities, sewer backup protection, flood-proofing measures, extension of municipal sewer and water, structure elevation, property acquisition).

PRIORITY: High

TIME: Ongoing Annually

LEAD: Town/Village

SUPPORTING: County Planning/County OES

COST: Will vary depending on project scope. NYSDOT/Grant funds

- **Action 5.4** - Otsego County has received requests from numerous residents, in the flood prone section of the county, regarding the possibility of a buyout program, due to the flood of 2006. The County has initiated the application process to acquire funds for this purpose. The majority of these residences have suffered from flooding that has damaged their homes greater than 50% of their fair market value. Selling of their property and relocating is financially the ideal solution in preventing this problem from reoccurring. The proposed project consists of a voluntary buyout program located in the 100-year flood plain along the Susquehanna River in the southern section of the planning area. The proposal will eliminate housing units in the 100-year floodplain reducing structural and personal property damages, including repetitive losses for many of the properties located in the project area. The structures, if purchased, will be demolished, existing grades would be established, and re-vegetated. The property would remain in perpetuity. The alternative to the buy-out would include floodwall construction and property elevation. The proposed project was selected after a review of the project costs and the benefits derived, and the permanent protection from a 100-year event. The total estimated cost county wide of the project is \$1,500,000. The Otsego County will take the role as lead agency, and is currently for approval.

Priority: High

Time: Estimated at minimum 1 year

Lead: Otsego County Planning Department

Supporting: SEMO and FEMA

Cost: \$1.5 Million, SEMO

GOAL SIX: Check dams routinely and maintain for safety

- **Action 6.1** - Improve communication with private dam owners and encourage dam inspection by NYSDEC.

PRIORITY: High
TIME: Within five years of plan adoption
LEAD: Town/Village
SUPPORTING: NYSDEC/County Planning/County OES/Private property owners
COST: Minimal

- **Action 6.2** - Develop an Emergency Action Plan for water reservoir dams.

PRIORITY: High
TIME: Within five years of plan adoption
LEAD: Town/Village
SUPPORTING: County OES
COST: Within existing budgets of municipalities

- **Action 6.3** - Participate in review and exercises in relation to Emergency Action Plans in Event of Dam Failure with New York Power Authority.

PRIORITY: High
TIME: Ongoing Annually
LEAD: Town/Village
SUPPORTING: County OES/County Sheriff/County Planning
COST: Minimal

- **Action 6.4** - Develop mapping and inspection procedure for monitoring beaver dams in the Town and Village.

PRIORITY: Medium
TIME: Within five years of plan adoption
LEAD: Town Highway Department
SUPPORTING: County GIS/County Planning/County OES
COST: Minimal

Hazardous Materials/Fire

(Hazardous Material Release in Transit, Hazardous Material Release at a Fixed Site, Oil Spill, Explosion, Fire, Radiological Release in Transit)

GOAL ONE: Educate the public with information about how to respond to a hazardous material incident.

- **Action 1.1** - Educate residents on evacuation procedures and shelter locations in areas near major transportation routes/facilities that use or store hazardous materials. Improve Early Warning System (EWS) for use during a hazardous material incident.

PRIORITY: High

TIME: Within first five years
LEAD: County OES
SUPPORTING: County Planning/County Sheriff/Town
COST: Less than \$250.00 annually from existing budget

GOAL TWO: Ensure that emergency response personnel respond quickly and safely to hazardous material incidents.

- **Action 2.1** - Obtain hazardous material training for first responders periodically.

PRIORITY: High
TIME: Ongoing Annually
LEAD: Town/Village Fire Department
SUPPORTING: County Sheriff/County OES/Towns/Villages
COST: Varies from existing departments' budgets/grants

- **Action 2.2** – Ensure that first responders annually inventory their equipment and supplies for hazardous material response and fix/replace/obtain equipment as necessary.

PRIORITY: High
TIME: Ongoing Annually
LEAD: Fire Departments
SUPPORTING: County OES/ County Sheriff
COST: Varies depending on necessary equipment

- **Action 2.3** – Encourage fire departments to maintain up-to-date information about hazardous materials stored and used within their response area. Encourage fire department familiarity with the layout of these facilities.

PRIORITY: High
TIME: Ongoing Annually
LEAD: Town/Village
SUPPORTING: County Sheriff/County OES
COST: Varies depending on necessary equipment

Action 2.4 - Work with Otsego County Farm Bureau to encourage safe and consistent storage practices for hazardous materials on agricultural operations. Improve communication with agricultural operations and fire departments about storage of hazardous materials. Obtain signage for agricultural hazardous material locations.

PRIORITY: High
TIME: Within first five years
LEAD: Town/Village
SUPPORTING: County Farm Bureau/County OES

COST: Minimal. Signage – grants

Action 2.5 - Work with Bassett Hospital to ensure that medications and equipment needed to treat exposure to hazardous materials are accessible.

PRIORITY: High

TIME: Ongoing annually

LEAD: County EMO/ County Sheriff/County OES

SUPPORTING: Bassett Hospital

COST: May vary depending on materials needed.

GOAL THREE: Design new development in such a manner so as to minimize risks associated with the transportation and use of hazardous materials

- **Action 3.1** – Ensure that highway construction projects consider drainage, site access, and other conditions that might impact the dissemination of hazardous materials and the ability of emergency personnel to respond.

PRIORITY: High

TIME: Ongoing annually

LEAD: Town Planning Board

SUPPORTING: County Highway/NYS DOT/ County OES/County Planning

COST: Minimal

- **Action 3.2** - Work with owners of facilities that store and/or utilize hazardous materials to safely store and handle such materials.

PRIORITY: High

TIME: Within first five years

LEAD: Town/Village

SUPPORTING: County OES

COST: Minimal

- **Action 3.3** – Encourage comprehensive plans and land use regulations to promote development patterns in which major transportation routes and industrial facilities are located away from schools, day cares, churches, waterways, and municipal water sources.

PRIORITY: Medium

TIME: Ongoing Annually

LEAD: Town Planning Board

SUPPORTING: County Planning

COST: Minimal

Ground Movement
(Earthquake, Structural Collapse)

GOAL ONE: Protect people and structures from ground movement events

- **Action 1.1** - Offer annual training and political support for Code Enforcement Officer in order to effectively enforce the structural standards in the International Building Code.

PRIORITY: High

TIME: Once Annually

LEAD: County Codes Enforcement

SUPPORTING: Town/Village Board

RESOURCES: Instructor/Training Location/Advertising

COST: Minimal

Drought

GOAL ONE: Lessen drought impacts on private wells and agriculture

- **Action 1.1** - Identify back-up wells in the Town and Village to be used for alternative water supply and arrange agreement for use of wells.

PRIORITY: High

TIME: Within the first five years after plan adoption

LEAD: Town/Village

SUPPORTING: County OES/County Soil and Water District/County Health Department/Natural Resources Conservation Service

COST: None for identification. Possible cost for purchasing right to use wells

- **Action 1.2** - Work with Otsego County Farm Bureau to encourage coordination with farmers during drought to assist each other with water supply issues.

PRIORITY: High

TIME: Ongoing annually

LEAD: Town

SUPPORTING: County OES/County Farm Bureau/County Planning

COST: Minimal

- **Action 1.3** - Continue work with NYSEMO to provide water pumps and waterline for emergency use.

PRIORITY: High

TIME: Ongoing annually

LEAD: Town/Village Fire Department

SUPPORTING: County OES/NYSEMO

COST: Minimal

SECTION 6 – PLAN MAINTENANCE

There will be an annual meeting of the municipality to review and update the local all hazard mitigation plan. Monitoring of the mitigation plan will be the responsibility of the planning group members from each municipality. The planning group members shall consist of a representative from the County Planning Department, the Supervisor or Mayor of the municipality, highway department superintendent, planning board, emergency services and other significant parties as determined. Information will be collected from various departments, highway, streets and park, capital budget, emergency response team and planning boards to identify mitigation measures that were implemented during the year and to document any state of emergency declarations. The annual review will allow the municipality to assess which projects are completed, which is no longer feasible, and what projects may require additional funding. The annual reports provide the foundation for the five-year update. The annual report and summary will be available for public review and input.

The County Planning Department will annually send a reminder with a checklist to each participating municipality in order to update and document hazards and related damages that occurred within the last year. Municipality will be responsible for the annual status report to be submitted to the county planning department in order to document changes, mitigation measures, and future detailed mitigation measures proposed for the upcoming year. During the annual review process non-participating municipalities will be contacted by the county for inclusion in the multi jurisdictional plan. As the review is completed annually, the necessary data for the five year review and update is already complied. A copy of the cover letter and update form is attached in appendix E-1 & E-2

Monitoring and Updating Schedule:

The Town and Village of Laurens has developed a method to ensure that the Hazard Mitigation Plan is reviewed and updated annually and every five years. In early November of each year the Planning Department will send a copy of the annual “check list” (appendix E-2) to the town supervisor and village mayor. At that time it is the responsibility for the local municipality to schedule a meeting with the both returning and new committee members along with knowledgeable members of the community to complete the annual “check list”. At this primary meeting the committee will discuss the following:

- Disasters that have occurred, impacted locations, and amount in damages within the past year.
- Progress status on mitigation actions
- Any relief funding
- implementation progress and overall success,
- Should strategies be revised or updated.

After the primary meeting, the committee will have three months to gather the needed data to address the concerns stated at the November meeting. Both meetings will be advertised and open to the public to encourage public involvement. The following month will mark the beginning of the summarizing and updating period. On the fourth year of the annual review it is important that the committee is aware that the updating process for the five-year review will begin. The five year update requires that the plan, all maps, data, and risk assessment information required to identify items that should be updated or modified will be reviewed. Any additional vulnerability assessment information that has been assembled since the plan adoption will be incorporated into the plan. In order to meet the deadline for the 5 year review, it will be necessary to coincide the updates beginning with the annual 4th year review in November and continue on during the months of December of the current year thru May of the following year. This will enable the committee to complete the fourth year review, continue onto the 5th year review and have the document completed six months prior to the end of the 5th year. A schedule of the annual process for plan monitoring is shown below. The schedule is based on the assumption of a resolution adopting the final Hazard Mitigation Plan by April 2007 with the need to complete the one year review ending April 2008 within two – three months following the year anniversary. Changes in dates of adoption will be adjusted accordingly.

ANNUAL AND FIVE YEAR PLAN UPDATE SCHEUDLE
Based on resolution of final plan adoption of April 1, 2007

TARGET DATE	RESPONSIBLE PARTY	OUTCOME
Oct 2007 – Nov 2007	County Planning Department	Send a reminder letter with a checklist and status report to each jurisdiction. (See Appendix E) In the 4 th year post. In the 4 th year, indicate the significance and post the meeting schedule for the upcoming 5 year plan update meeting.
Dec 2007- Jan 2008	Local municipal supervisor or mayor of jurisdiction along with local representatives from the highway department, planning board , emergency squad and fire department as well as County planning Department	Schedule a meeting or meetings for plan review and Annual Status Report completion. The local hazard Mitigation committee of appropriate officials and members of the public shall be appointed to this task by the supervisor. For the 4 th year review, participation should be expanded to include agencies, businesses, academia, the public and non-profits. It is at this time, preparations begin for the 5 year review.

February 2008 - March	Supervisor, members of the mitigation committee and the County Planning Department	The amendments and additions are prepared for final submittal to the county planning department and implementation into each jurisdictions plan. Jurisdictions along with the help of the county continued to work on their 5 year plan review to prepare draft updated plan
April 2008	County Planning committee Mayor/Supervisors	One year anniversary for document acceptance. Annual Update Report or a draft of the 5 years update is made available in public media and/or public media jurisdictions.
May 2008 thru end of March	County Planning committee And local municipal representatives	Hold meetings for 5 year update as needed and post plan for public review and submit the plan to SEMO prior to the anniversary date of April 2012

The Committee will review each goal and objective in the mitigation strategy (Section 4) to determine the ongoing relevance to changing situations in the Town and Village of Laurens. The Committee will evaluate the need to revise, eliminate, or replace each action item. Based on the hazard mitigation successes and failures the goals and objectives in the plan, and changing local circumstances, the committee will also recommend any new action items to be included in the plan.

After the Committee makes their recommendations, the Town and Village Boards will schedule a public hearing to solicit comments from town residents. The revised plans will then be submitted to SEMO and FEMA. Revisions will be placed in existing Multi-Hazard Mitigation Plan booklets.

Otsego County and the participating jurisdictions plan to gradually merge the hazard mitigation plan into the daily governmental operations. Both private and public organizations will be encouraged to become an active participant. The local Hazard Mitigation committee will work with local government officials to integrate the newly adopted hazard mitigation goals and actions into the general operations of government and partner organizations. This will allow for diversity of responsibility in order to meet the goals and actions (identified in section 5) of the plan. After which the committee will identify additional policies, programs, practices, and procedures that could be modified to accommodate hazard mitigation actions. In addition, the municipality will provide a copy of the plan to all officials and department heads; the highway department, zoning officer, planning board, or other groups, to encourage the use of the plan in their decision making process and to merge the Hazard Mitigation Plan into existing plans when

appropriate. Other examples may be, contracting with our local educational facilities to implement educational programs or, involving disasters relief volunteers in order to coordinate immediate response needs during a disaster period. The following table includes existing processes and programs through which the mitigation plan could be implemented

Also refer to Chart 6.1 at the end of the narrative section of this document.

Process	Action	Implementation of Plan in Town and Village of Laurens and Otsego County
Administrative	Departmental or organizational work plans, policies, and procedural changes.	<ul style="list-style-type: none"> ▪ Local Highway Department ▪ Otsego County Department of Emergency Response ▪ Otsego County Department of Information Technology Services ▪ Otsego County Highway Department ▪ Otsego County Department of Social Services ▪ Otsego County Emergency Planning Committee ▪ Otsego County Planning Department ▪ Otsego County Solid Waste Management Program
Administrative	Other organizations' plans	<ul style="list-style-type: none"> • Include reference to this plan in risk reduction section of the Otsego County Comprehensive Emergency management plan. • Include reference to this plan in the National Baseball Hall of Fame, both Basset and Fox hospitals, 20 (including the two colleges) county wide schools, Emergency plans. • Major Employers such as Wal-mart in Oneonta, New York State Central Mutual, Corning Glass, ect. • New York State Department of Agriculture and Markets
Administrative	Job/Job Descriptions	<ul style="list-style-type: none"> • Unpaid internship to assist in hazard mitigation plan maintenance Emergency Relief Coordinator funded through either federal or state grants
Budgetary	Capital and operational budgets	<ul style="list-style-type: none"> • Review of local budgets to include line item mitigation actions
Regulatory	Executive Orders, ordinances and other directives	<ul style="list-style-type: none"> • Comprehensive Planning -Institutionalize hazard mitigation for new construction and land use. • Zoning and Ordinances • Building Codes • Capital Improvements Plan – Ensure that the person responsible for projects under this plan evaluate if the new construction is in a high hazard area, flood plain, etc. so the construction is designed to mitigate the risk. Revise requirements for this plan to include hazard mitigation in the design of new construction. • National Flood Insurance Program – Continue participation in this program and encourage non-participants to join. • Community Rating System – Evaluate participation in the plan. Annually update the plan to receive credit for their hazard mitigation plan under this program. • Continue to implement County and town storm water management plans. • Prior to formal changes (amendments) to comprehensive plans, zoning, ordinances, capital improvement plans, or other mechanisms that control development must be reviewed to ensure they are consistent with the

		<p>hazard mitigation plan.</p> <ul style="list-style-type: none"> Communicate with municipalities to have joint review of land use regulations and comprehensive plans to coordinate with Hazard mitigation
--	--	--

Process	Action	Implementation of Plan in Town and Village of Laurens and Otsego County
Funding	Secure traditional sources of financing.	<ul style="list-style-type: none"> Once plan is approved, initiate process to enable legislation to use fees, taxes, bonds, and loans to finance projects. Apply for grants from federal or state government, nonprofit organizations, foundations, and private sources including Flood Mitigation Assistance Program (FMA), and the Hazard Mitigation Grant Program (HMGP-Stafford Act, Section 404). Research grant opportunities through U.S. Department of Housing and Urban Development's Community Development Block Grant (CDBG) Investigate other federal sources of funding, such as but not limited to; Other potential federal funding sources include: <ul style="list-style-type: none"> Stafford Act, Section 406 – Public Assistance Program Mitigation Grants Federal Highway Administration Catalog of Federal Domestic Assistance United States Fire Administration – Assistance to Firefighter Grants United States Small Business Administration Pre and Post Disaster Mitigation loans <ul style="list-style-type: none"> United States Department of Economic Development Administration Grants United States Army Corps of Engineers United States Department of Interior, Bureau of Land Management
Partnerships	Develop creative partnerships, funding and incentives.	<ul style="list-style-type: none"> Public-Private Partnerships Community Volunteers State Cooperation In-kind resources
Partnership	Existing Committees and Councils	<ul style="list-style-type: none"> Department of Economic Development (SUNY) Community Outreach (SUNY) United Way Otsego County Emergency Planning Committee

Partnership	Working with other federal, state, and local agencies	<ul style="list-style-type: none"> • Army Corp. of Engineers (USACE) • American Red Cross • Department of Homeland Security (DHS) • Federal Emergency Management Agency (FEMA) • National Oceanic and Atmosphere Agency (NOAA) • National Weather Service (NWS) • New York State Department of Transportation (NYSDOT) • State Emergency Management Office – SEMO • United States Department of Agriculture (USDA) • United States Department of Transportation (USDOT) • United States Fish and Wildlife Service (USFWS) • Otsego County Conservation Association • Otsego 2000 • Susquehanna Basin • State of New York University at Oneonta • Community Volunteers – Habitat for Humanity • Otsego Lake
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Continued Public Involvement

The Town and Village of Laurens is committed to the continued involvement of the public in the hazard mitigation process. Copies of the Town and Village of Laurens Hazard Mitigation Plan will be kept and made available for review at any time during business hours. If a web site is available for the municipality, efforts will be made to include notices of meetings and the actual document with planned updates posted at the time of review.

Copies of the plan will be placed at the following locations:

- Town of Laurens Clerks Office
- Village of Laurens Clerks office
- Otsego County Planning Department
- Otsego County Emergency Services Department
- Otsego County Planning Department Website

Each municipality during their annual reviews will schedule meetings open to the public for input and comments prior to completing their update

A notice regarding the existence and location of copies of the mitigation plan will be publicized annually in local newspaper(s) and posted on the Otsego County web site. This announcement will follow the Planning Group’s annual review effort.

The public will have the opportunity to comment on the proposed updates to the plan during scheduled public meetings. Completion of the annual planning evaluation process and the 5-year plan update will take place only after considerable time and input from the public and involved departments is gathered and evaluated for inclusion. The Planner and members of the committee will be responsible for coordinating the plan evaluation portion of the meeting, soliciting feedback, collecting and reviewing the comments, and ensuring their incorporation in the 5-year plan update as appropriate. Additional meetings

may also be held as deemed necessary by the committee. The purpose of these meeting would be to provide the public an opportunity to express concerns, opinions, and ideas about the mitigation plan.

Chart 6.1 Review of Existing Information

Record of the review and incorporation of existing programs, policies, and technical documents for a single local jurisdiction. Adapted from Draft FEMA 386-8.

Name of Jurisdiction: Town of Laurens

Prepared by: Name: County Planning Dept. Title: Fiona Carbin Phone :607-547-4225

Existing Program/ Policy/ Technical Documents	Does the jurisdiction have this program/policy/ technical document? (Yes/No)	Reviewed? (Yes/No)	Method of incorporation into the hazard mitigation plan
Comprehensive plan	Yes	No	Used for assessing development trends and future vulnerabilities
Growth Management plan/ Capital Improvement plan	No	No	
Flood Damage Prevention Ordinance	No	No	
Floodplain Management plan	Yes, member of NFIP	Yes	Incorporated actions
Open Space program plan	No	No	
Flood Insurance Studies, DFIRMs or engineering studies for streams	Yes, NFIP	Yes	Incorporated expected frequency and extent of flooding
Hazard Vulnerability Analysis (by the local Emergency Management Agency)	No	No	
Emergency Management Plan/ Emergency Operations Plan	No	No	
Zoning Ordinance and/or subdivision regulations	Yes	Yes	Used for assessing vulnerability of proposed project.
Building Code	Yes	No	
Drainage Ordinance	No	No	
Critical Facilities maps	No	No	
Existing Land Use maps	Yes	No	Used for assessing vulnerability
Elevation Certificates	No	No	
State plan	Yes	Yes	Incorporated risk assessment data and maps

HAZUS study	Yes	Yes	Used for flood potential and other hazard dollar loss estimates
SLOSH Studies	n/a	n/a	n/a
Hurricane Evacuation Plan	n/a	n/a	n/a
Other			

Appendix

Appendix A-	List of Acronyms
Appendix B-	Town and Village of Laurens Resolutions
	B-1 2004 Formal Appointment of members of the Town and Village of Laurens All- Hazards Mitigation Planning Committee
	B-2 2005 Town and Village of Laurens All-Hazards Mitigation Plan Adoption
	B-3 2007 Town and Village of Laurens Resolution adopting the Amended All- Hazard Mitigation Plan
Appendix C-	Notification for Public Involvement
	C-1 Copy of Public Notice
	C-2 List of Other involved agencies
	C-3 Copy of letter sent to agencies
Appendix D-	List of Critical Facilities and Vulnerable sites in the Town and Village of Laurens
Appendix E-	Annual Maintenance Report
	E-1 Cover Letter
	E-2 Annual Check List
Appendix F-	Hazard Maps
	F-1 Roads and Parcels
	F-2 Water & Forest Resources
	F-3 School Districts
	F-4 Fire Districts
	F-5 Transportation/Crashes
	F-6 Critical Facilities (T)
	F-7 2006 Flood
	F-8 Potential Hazardous Areas

APPENDIX A

List of Acronyms

Throughout this plan, the following acronyms are used:

Acronym	Meaning
CEO	Code Enforcement Officer
CWCABA	Clean Water/Clean Air Bond Act
EAP	Emergency Action Plan
EAS	Emergency Alert System
OES	Office of Emergency Services
EMS	Emergency Medical Service
EPA	Environmental Protection Agency
EPF	Environmental Protection Fund
FERC	Federal Energy Regulatory Commission
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
HAZNY	Hazards New York (Hazard Analysis Computer Program)
HMC	Hazard Mitigation Committee
HMGP	Hazard Mitigation Grant Program
ICS	Incident Command System
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resource Conservation Service
NWS	National Weather Service
NYSDEC	New York State Department of Environmental Conservation
NYSDOS	New York State Department of State
NYSDOT	New York State Department of Transportation
NYSEMO	New York State Emergency Management Office
NYSP	New York State Police
PDM	Post Disaster Mitigation
SEMO	State Emergency Management Office
SFHA	Special Flood Hazard Area
SUNY	State University of New York (Oneonta)

Appendix B-1

2004 Formal Appointment of members of the Town and Village of Laurens All- Hazards Mitigation Planning Committee

COPY

TOWN & VILLAGE OF LAURENS

RESOLUTION AUTHORIZING PARTICIPATION IN THE OTSEGO COUNTY MULTI-JURISDICTIONAL ALL HAZARD MITIGATION PLAN & CREATING A LOCAL ALL HAZARD MITIGATION PLANNING COMMITTEE

WHEREAS, the federal Disaster Mitigation Act of 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act to require that all local governments have an approved All-Hazard Mitigation Plan in place by November 1, 2004 to be eligible for Hazard Mitigation Grant Program funding and other pre-disaster funding, and

WHEREAS, the Hazard Mitigation Grant Program provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented, and

WHEREAS, The County has requested that municipalities wishing to participate maintain records of their hours spent working on this effort so that "in-kind service" figures can be provided to meet the requirements of the grant;

Now Therefore Be It

RESOLVED, That the Town & Village of Laurens has determined that it shall participate in the multi-jurisdictional All Hazard Mitigation Plan to be prepared by the County, and further

RESOLVED, That all persons working on this plan will provide in-kind hours to the county planning department so the parameters of the grant can be met, and further

RESOLVED, That the Local Hazard Mitigation Committee is hereby created for the purposes of preparing the multi-jurisdictional all hazard mitigation plan, and further

RESOLVED, That such Local Hazard Mitigation Committee shall be comprised of the following individuals and/or agencies:

Name	Agency	Address	Telephone
Oscar Oberkircher, Supervisor	Town of Laurens	118 Town Line Road Laurens, NY 13796	433-2518
Robert Anderson, Highway Superintendent	Town of Laurens	331 Airport Road Oneonta, NY 13820	432-2769
Gerry Wenck, Water Superintendent	Village of Laurens	1256 Co Hwy 11 Laurens, NY 13796	432-3903
Robert Zack, Trustee	Village of Laurens	PO Box Laurens, NY 13796	436-9885 (unlisted)
Dana Weygand, Captain	Laurens Emergency Squad	139 Co Hwy 12 Laurens, NY 13796	433-1478
Tom Brownell, Fire Chief	Laurens Fire Department	Co Hwy 10 Laurens, NY 13796	263-5896

And further


RESOLVED, That such Local Hazard Mitigation Committee shall have a Chairman and a Secretary, as follows:

Oscar Oberkircher, Chairman	118 Town Line Road Laurens, NY 13796	433-2518
Gerry Wenck, Secretary	1256 Co Hwy 11 Laurens, NY 13796	432-3903

And further

RESOLVED, That the Clerk of this Board shall send a copy of this resolution to the County Planning Department, 197 Main Street, Cooperstown, NY 13326.


Doris I. Schlee, Village Clerk


Gerilyn Hoistead, Town Clerk

Appendix B-2
2005 Town and Village of Laurens
All-Hazards Mitigation Plan Adoption
Town

**RESOLUTION AUTHORIZING ADOPTION OF THE
ALL HAZARD MITIGATION PLAN**

On a motion by William Martin seconded by Janice Coulter and Wilber Cleveland the following was ADOPTED Ayes 4 Cleveland, Coulter, Martin, Oblinski
Nays 0

WHEREAS, the Otsego County Board of Representatives has determined that the County will prepare a multi-jurisdictional All Hazard Mitigation Plan that includes all Otsego County municipalities that want to participate;

WHEREAS; the County has requested that municipalities wishing to participate maintain records of their hours spent working in this effort so that "in-kind service" figures can be provided to meet the requirements of the grant;

WHEREAS; the Town of Laurens Hazard Mitigation Committee has worked with the County Planning Department to prepare an All Hazard Mitigation Plan

WHEREAS; the Hazard Mitigation Committee has presented said plan to the Town;

Now therefore be it


RESOLVED, That the Town of Laurens has determined that it shall accept the All Hazard Mitigation Plan and further

RESOLVED, That all persons working on this plan have provided in-kind hours to the county planning department so the parameters of the grant can be met, and further

RESOLVED, That the Clerk of this Board shall maintain on file, a copy of the All Hazard Mitigation Plan in the office of the clerk, located at 37 Brook Street, Laurens, New York 13796, and further

RESOLVED, That the Clerk of this Board shall send a copy of this resolution to the County Planning Department, 197 Main Street, Cooperstown, New York 13326


Town Clerk


Board Representative

dated 01/14/05

Village

**VILLAGE OF LAURENS
37 BROOK STREET
LAURENS, NEW YORK, 13796**

**RESOLUTION AUTHORIZING ADOPTION
OF THE ALL HAZARD MITIGATION PLAN**

WHEREAS, The Otsego County Board of Representatives has determined that the County will prepare a multi-jurisdictional All Hazard Mitigation Plan that includes all Otsego County municipalities that want to participate;

WHEREAS, The County has requested that municipalities wishing to participate maintain records of their hours spent working on this effort so that "in-kind service" figures can be provided to meet the requirements of the grant;

WHEREAS, the Village of Laurens Hazard Mitigation Committee has worked with the County Planning Department to prepare an All Hazard Mitigation Plan

WHEREAS, the Hazard Mitigation Committee has presented said plan to the Village;

Now Therefore Be It

RESOLVED, that the Village of Laurens has determined that it shall accept the All Hazard Mitigation Plan and further

RESOLVED, that all persons working on this plan have provided in-kind hours to the county planning department so the parameters of the grant can be met, and further

RESOLVED, that the Clerk of the Board shall maintain on file, a copy of the All Hazard Mitigation Plan in the office of the clerk, located at 37 Brook Street, Laurens, New York 13796, and further

RESOLVED, that the Clerk of the Board shall send a copy of this resolution to the County Planning Department, 197 Main Street, Cooperstown, New York, 13326.

Deirdre J. Schlee

Village Clerk

Michael E. Tombs

Board Representative

dated: 1/11/05

Appendix B-3
RESOLUTION AUTHORIZING ADOPTION
OF THE AMENDED 2006 COPY OF THE
ALL HAZARDS MITIGATION PLAN

WHEREAS, The Otsego County Board of Representatives has determined that the County will prepare a multi-jurisdictional All Hazard Mitigation Plan that includes all Otsego County municipalities that want to participate;

WHEREAS, The County has requested that municipalities wishing to participate maintain records of their hours spent working on this effort so that “in-kind service” figures can be provided to meet the requirements of the grant;

WHEREAS, the Town and Village of Laurens Hazard Mitigation Committee has worked with the County Planning Department to prepare an All Hazard Mitigation Plan

WHEREAS, the Hazard Mitigation Committee has presented said plan to the Town/City/Village;

Now Therefore Be It

RESOLVED, That the Town and Village of Laurens has determined that it shall accept the All Hazard Mitigation Plan and further

RESOLVED, That all persons working on this plan have provided in-kind hours to the county planning department so the parameters of the grant can be met, and further

RESOLVED, That the Clerk of this Board shall maintain on file, a copy of the All Hazard Mitigation Plan in the office of the clerk, located at the Town Hall, 37 Brook St., Laurens, New York, 13796, and further

RESOLVED, That the Clerk of this Board shall send a copy of this resolution to the County Planning Department, 197 Main Street, Cooperstown, NY 13326.

Town Clerk

Village Clerk

Board Representative

Village Mayor

Appendix C-1
Copy of Public Notice



37 Brook Street, Laurens, NY 13796
607/433-2816 Fax 607/433-7213
e-mail laurensclerk@stov.ny.gov

Town of Laurens

AUGUST 3, 2006

THE DAILY STAR
PO Box 250
ONEONTA, NY 13820

DEAR FRIENDS:

Please publish the following as a Legal Ad for one [1] day as soon as possible. Please send the bill as well as proof of publication to the above address.

NOTICE

The Town and Village of Laurens All Hazard Mitigation Plan Draft is currently being reviewed. A copy of the plan is held at the Town Hall and also at the Otsego County Planning Department. Public input and comments are encouraged until August 31st.

Geralyn Holstead
Laurens Town Clerk

Thank you once again for your prompt service.

Geralyn Holstead
Laurens Town Clerk

APPENDIX C-2

List of agencies

During the revision period the following organizations received an informative letter about the All-Hazard Mitigation Plan for the Town and Village of Laurens.

- Mt. Vision Fire Halls
- Village of Laurens Fire Hall
- West Laurens Fire Hall
- the Presbyterian church
- Lutheran church
- Laurens Town hall
- Laurens Central School
- SUNY Oneonta
- Hartwick college

AppendixC-3
Copy of letter sent to agencies



37 Brook Street, Laurens, NY 13796
607/433-2816 Fax 607/433-7213
e-mail laurensclerk@town.ny.com

Town of Laurens

August 3, 2006
Town & Village of Laurens Residents

To Whom It May Concern:

NOTICE

The Town and Village of Laurens All Hazard Mitigation Plan Draft is currently being reviewed. A copy of the plan is held at the Town Hall and also at the Otsego County Planning Department. Public input and comments are encouraged until August 31st.

Respectfully,

Geri Holstead
Town Clerk
Town of Laurens

cc: Laurens Fire District
Presbyterian Church
Lutheran Church
Town Hall
Laurens Central School
SUNY Oneonta
Hartwick

APPENDIX D
List of Critical Facilities and Vulnerable sites

Town and Village of Laurens

Facility/Owner	Location
Laurens Fire Department	Main St.
Laurens Central School	Main St.
Laurens Library	Main St.
Laurens American Legion	Main St.
Laurens Masonic Lodge	Brook & Craft St.
Laurens Town Hwy	37 Brook St.
Laurens Town Hall	37 Brook St.
Laurens Post Office	Brook St.
Laurens Bus Garage	Co. Hwy 11 & Pool Brook Rd
Water Treatment Plant	St. Hwy 205
Laurens Lutheran Church	Co. Hwy 11/Main St.
Laurens Reservoir	Airport Road
Mt. Vision Fire Department	Co. Hwy 11B
Mt. Vision Post Office	Co. Hwy 11B & St. Hwy 205
Mt. Vision Baptist Church	Co. Hwy 11B
Mt. Vision Methodist Church	St. Hwy 205
West Laurens Fire Dept	St. Hwy 23
West Laurens Church	Co. Hwy 10

APPENDIX E
Annual Maintenance Report

APPENDIX E-1 *Cover Letter*



COUNTY OFFICE BUILDING • 197 MAIN STREET • COOPERSTOWN, NEW YORK 13326

PLANNING DEPARTMENT

PHONE: (607) 547-4225

FAX: (607) 547-4285

Terry Bliss, Planning Director

E-mail: blisst@otsegocounty.com

The Hazard Mitigation Plan is updated annually by the established committee regarding natural hazards that have affected local communities within the past year. The purpose of this is to make the appropriate changes to the communities' individual plan so that the information included is not outdated, and historical documentation is recorded.

The local Hazard Mitigation committee needs to withstand even if members are no longer active. The most useful way of maintaining an involved and helpful committee is having one representative from each of the following local branches:

- local fire department
- local highway department
- knowledgeable resident
- town/village administrator
- emergency squad

The committee is welcomed to add other members of the community that are reliable resources will be an asset in completing the annual survey.

The local Hazard Mitigation committee is responsible to complete the survey in the most detailed manor. Hazards listed already include; ice storms, severe storms (including wind storms), winter storms, flood, erosion, hazardous material in transit, Fire (including wild fire), tornado, flash flood, ice jams, and hurricane. Space is provided to include non-listed hazards that have affected a community or another occurrence of a particular hazard from that year.

Below is an example of how the survey should be filled out.

Flood-

When-

April 14-16 2007

Detailed Location of Hazard-

Flooding occurred along Hill creek, the Florence River, Town stream, from Rose Avenue to Baseball hill.

Detailed Description of Damages-

45% of our community was affected due to washed out roads and flood damage. 12 houses along the Florence river basements were flooded, resulting in damage to personal belongings, major repairs such as repairing pumps, and drainage systems.

Estimate amount in damages-

\$20,000

Amount rewarded from FEMA (if any)-

No FEMA assistance applied but not rewarded

Actions taken to mitigate impacts on community-

Replaced Culvert from 8' to 12' on Rose Avenue. Scheduled cleaning of drainage ditches along highway 22.

Cost of mitigation measures-

34,000 for improvements

APPENDIX E-2
Annual Check List

Hazard Mitigation Annual Maintenance

The Hazard Mitigation Plan requires that the local Committee review, update, and make necessary changes to the plan that has occurred within the last year. In doing so the established committee must do the following:

- Identify which natural hazards have affected the community
- Exact locations where community were affected and for how long
- Cost in damages
- Amount if any received from FEMA
- Mitigation measures that were taken throughout the year in prevention of future destruction
- Provide signatures from each committee member

Below are potential hazards that may occur. Please fill in the needed information with the most detail. There is available space for those hazards that have not been listed but have affected your community and would like to include.

Potential hazards:

Ice Storms-

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Severe Storms-

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Winter Storms-

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Flood-

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Hurricane -

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Erosion/Landslide-

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Haz Mat (in transit)-

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Fire/ Wide Fire-

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Tornado-

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Flash Flood-

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Ice Jams-

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Hazard _____

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Hazard _____ -

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Hazard _____ -

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

Hazard _____

When-

Detailed Location-

Detailed Description of Damages-

Estimate amount in damages-

Amount rewarded from FEMA (if any)-

Actions taken to mitigate impacts on community-

APPENDIX F
Hazard Maps

F-1	Roads and Parcels
F-2	Water & Forest Resources
F-3	School Districts
F-4	Fire Districts
F-5	Transportation/Crashes
F-6	Critical Facilities (T)
F-7	2006 Flood
F-8	Potential Hazardous Areas



LISBON

HARTWICK

Roads and Parcels

- State Highway
- County Highway
- Town Road - Paved
- Town Road - Gravel
- Town Road - Shale
- Town Road - Dirt
- Town Road - Seasonal
- Private Road

Otsego County

MORRIS

LAURENS

VILLAGE OF LAURENS

MILFORD

Laurens, NY
F-1

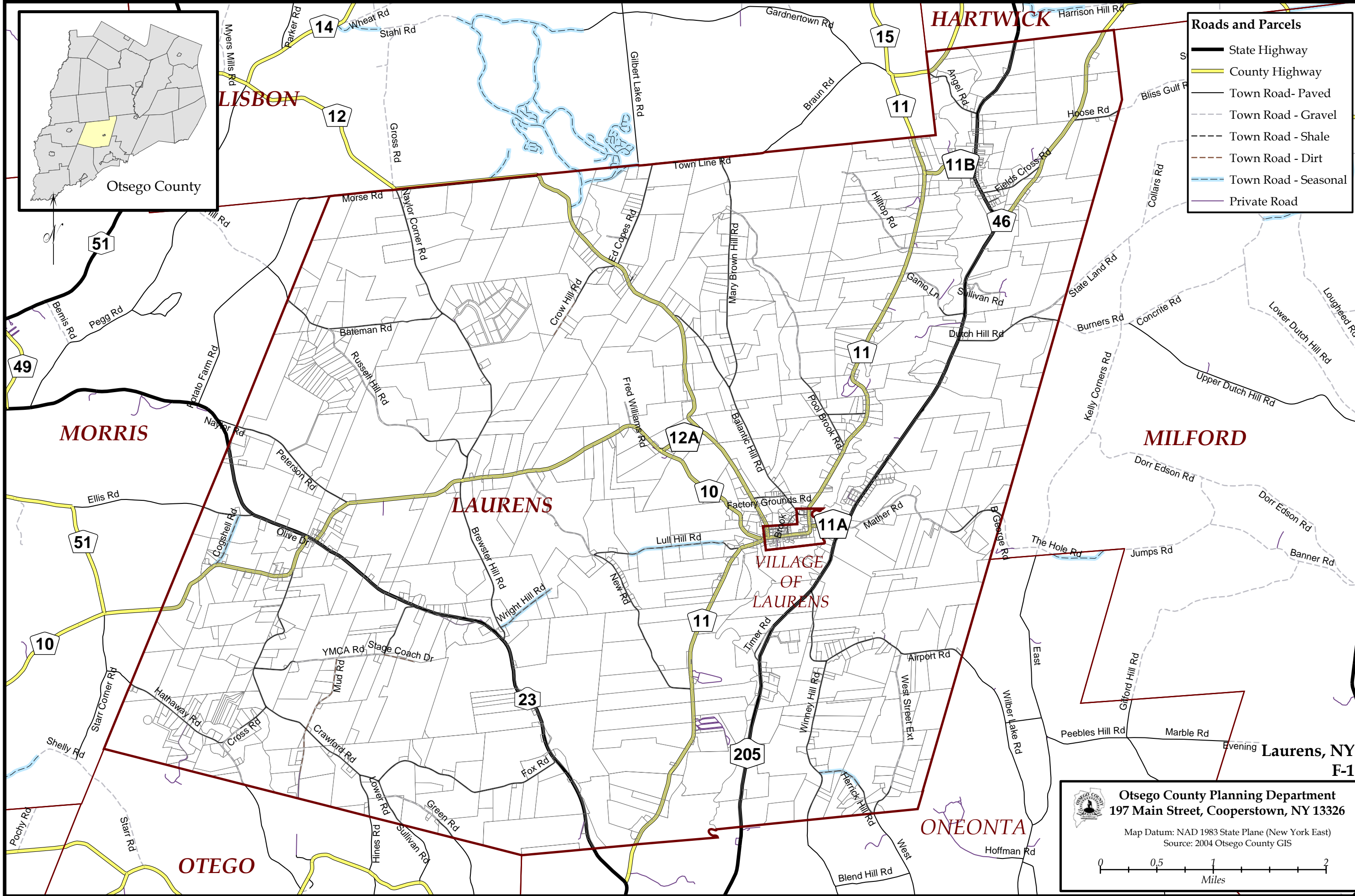
OTEGO

ONEONTA

Otsego County Planning Department
 197 Main Street, Cooperstown, NY 13326

Map Datum: NAD 1983 State Plane (New York East)
 Source: 2004 Otsego County GIS

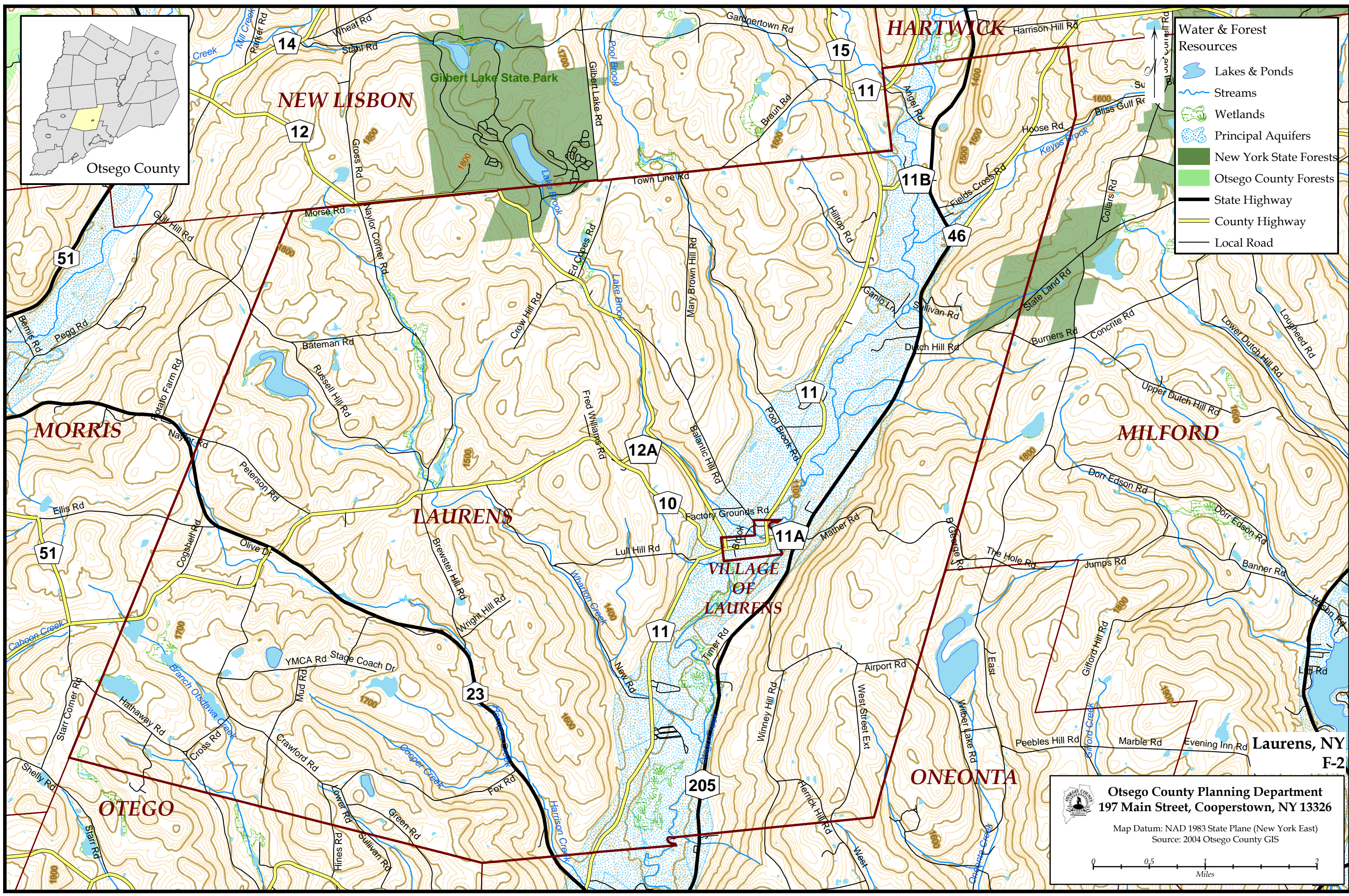
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Water & Forest Resources

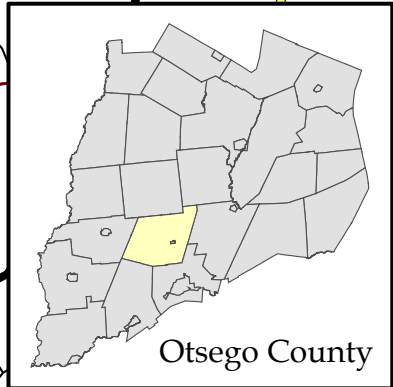
- Lakes & Ponds
- Streams
- Wetlands
- Principal Aquifers
- New York State Forests
- Otsego County Forests
- State Highway
- County Highway
- Local Road



Otsego County Planning Department
197 Main Street, Cooperstown, NY 13326

Map Datum: NAD 1983 State Plane (New York East)
Source: 2004 Otsego County GIS

Laurens, NY
F-2

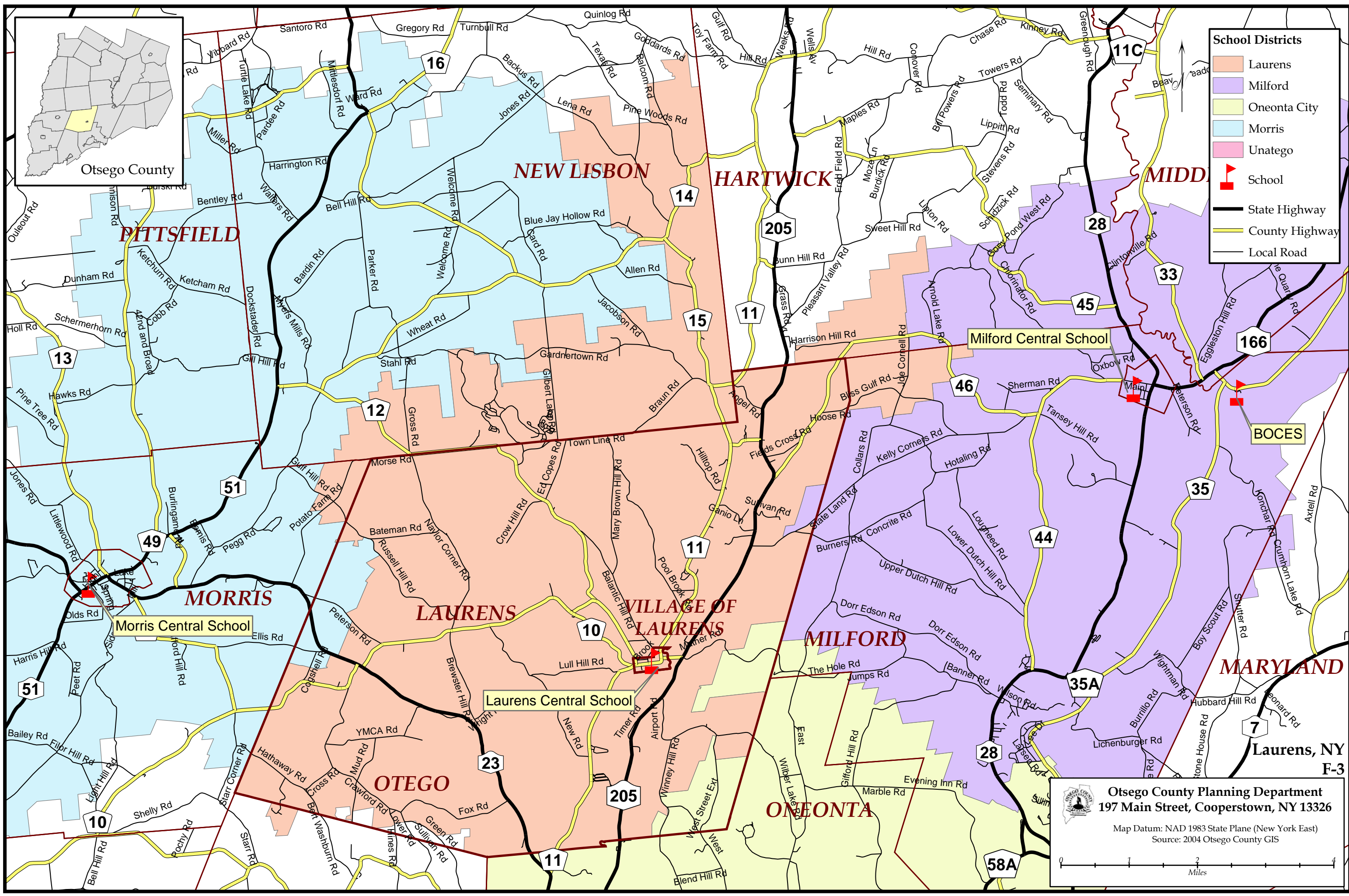


School Districts

- Laurens
- Milford
- Oneonta City
- Morris
- Unatego

Legend

- School
- State Highway
- County Highway
- Local Road

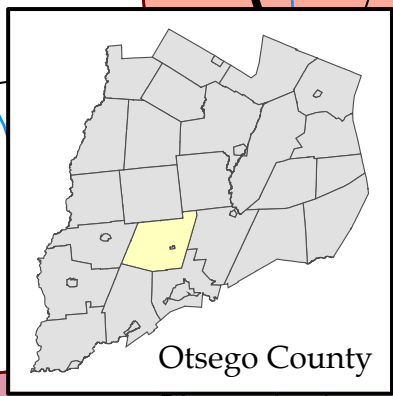


Otsego County Planning Department
 197 Main Street, Cooperstown, NY 13326

Map Datum: NAD 1983 State Plane (New York East)
 Source: 2004 Otsego County GIS

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Miles

Laurens, NY
F-3

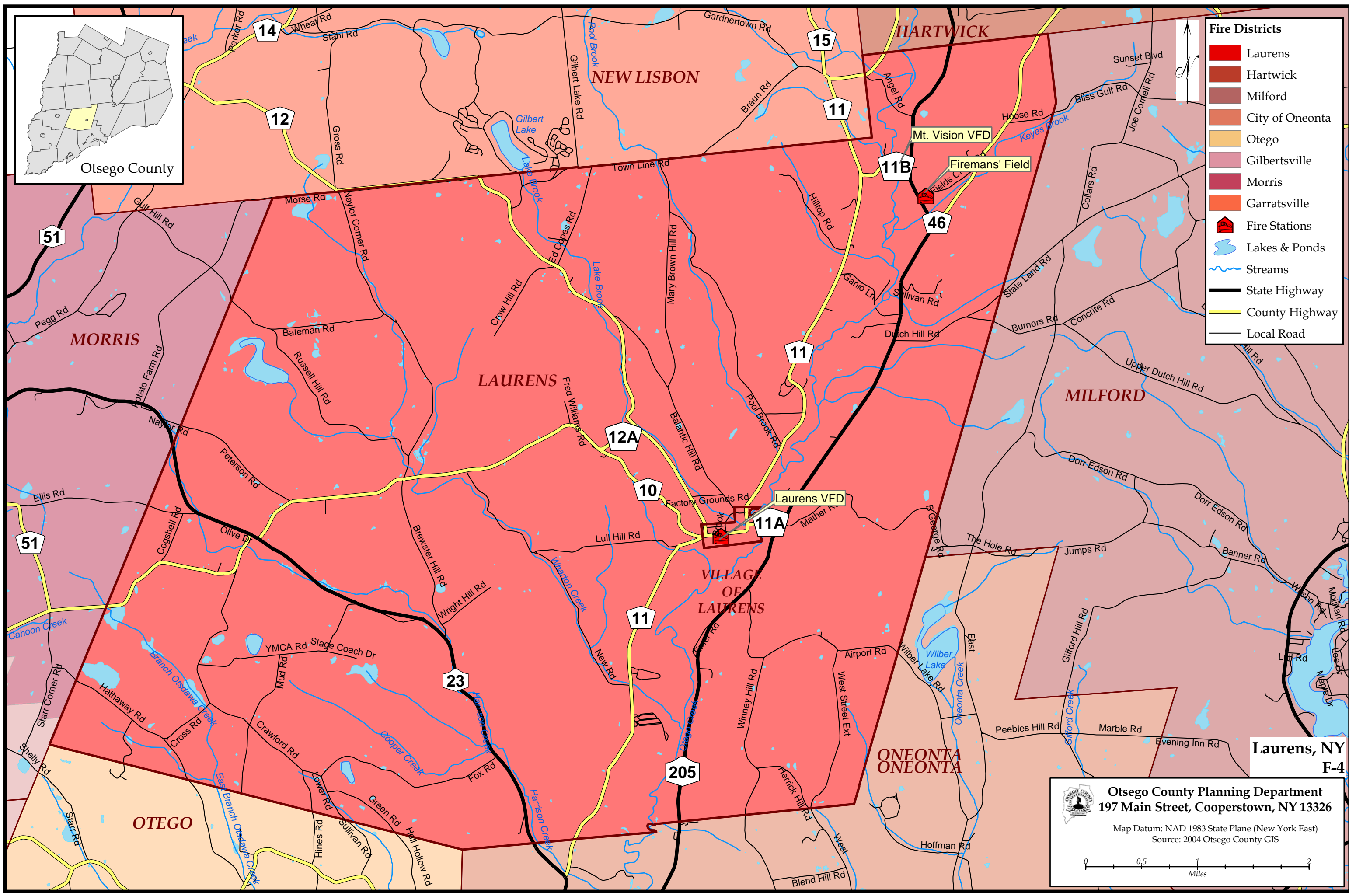


Fire Districts

- Laurens
- Hartwick
- Milford
- City of Oneonta
- Otego
- Gilbertsville
- Morris
- Garratsville

Other Features:

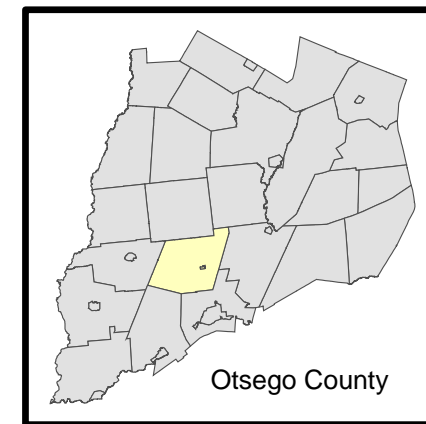
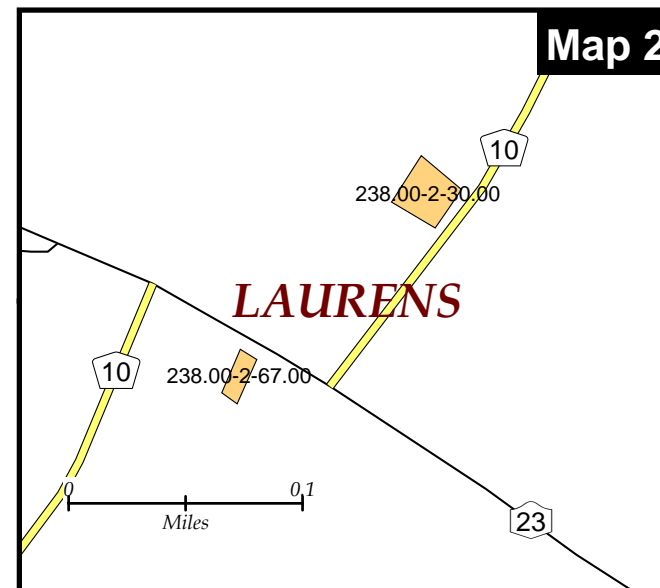
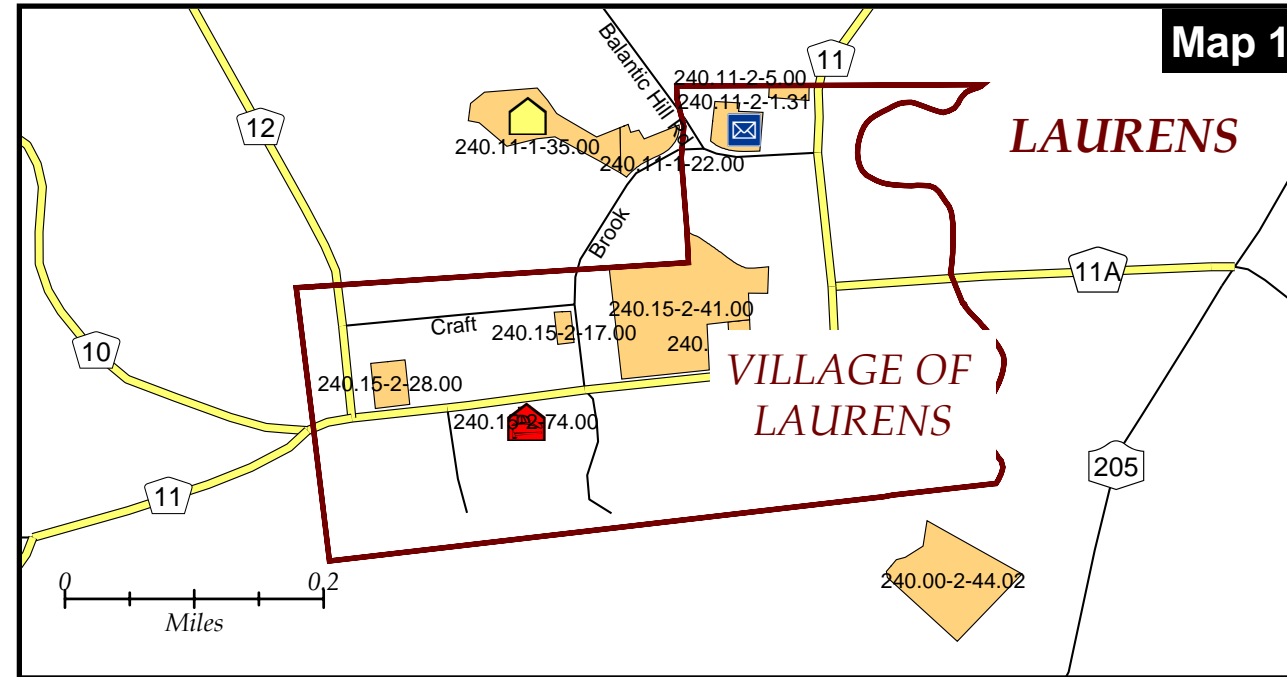
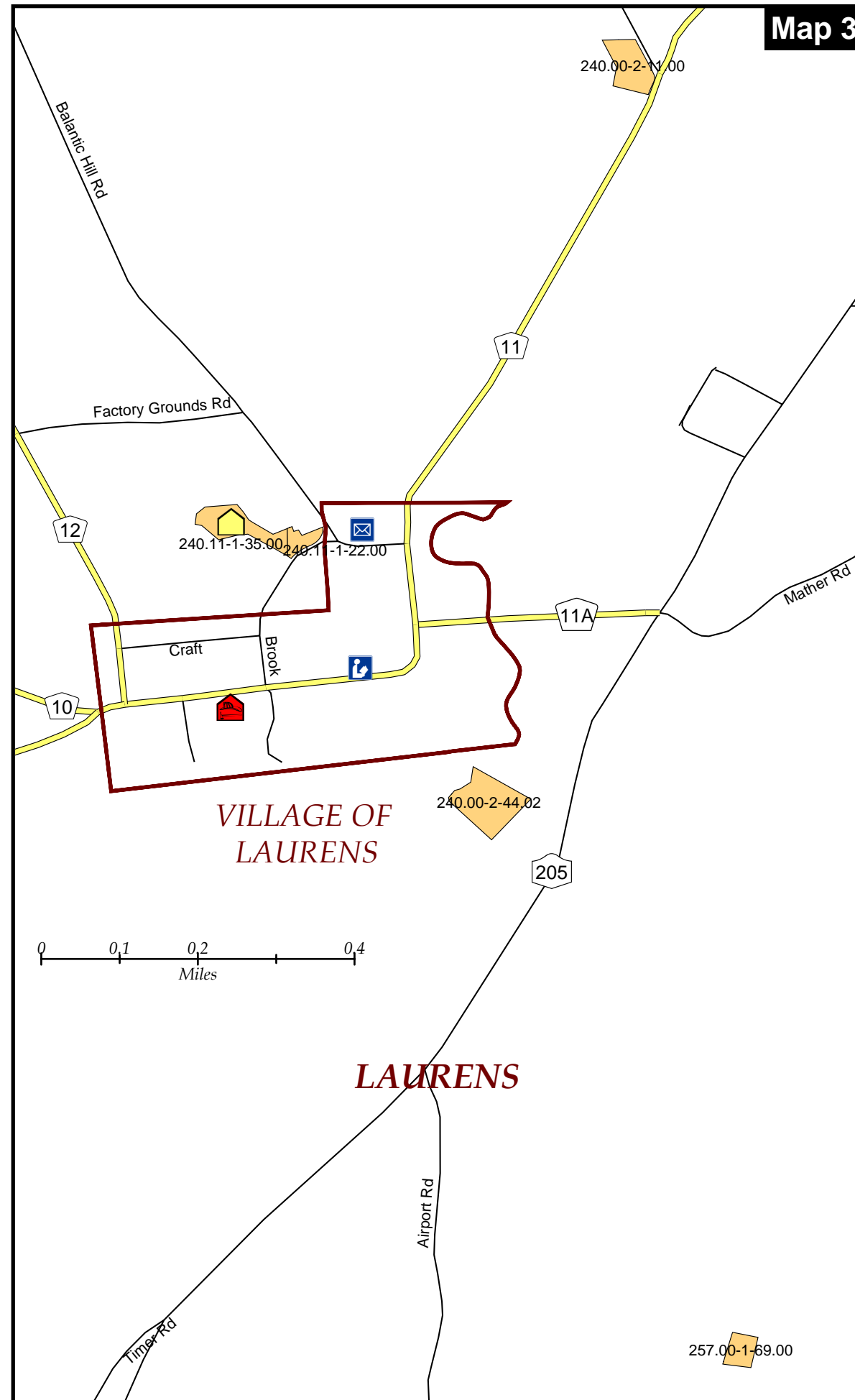
- Fire Stations
- Lakes & Ponds
- Streams
- State Highway
- County Highway
- Local Road



Laurens, NY
F-4

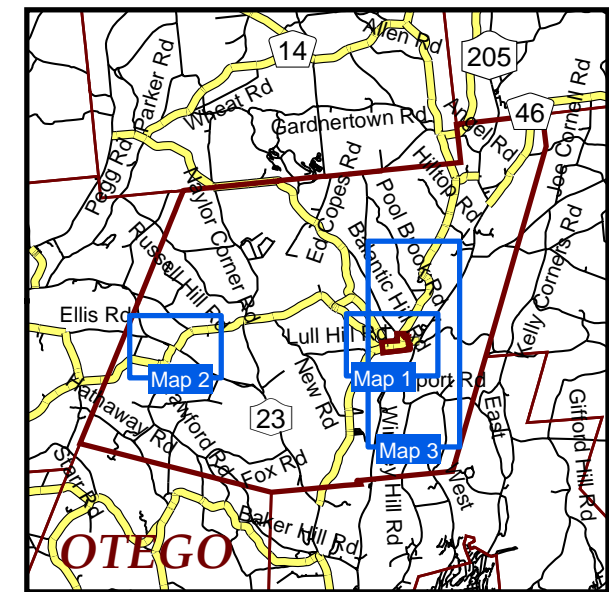
Otsego County Planning Department
197 Main Street, Cooperstown, NY 13326

Map Datum: NAD 1983 State Plane (New York East)
Source: 2004 Otsego County GIS



- Critical Facilities**
- Town / Village Hall
 - Fire Station
 - Highway Garage
 - Library
 - Post Office
 - Information Center
 - Critical Facilities
 - State Highway
 - County Highway
 - Local Road

Parcels with critical facilities are identified by Tax ID and referenced in the chart.

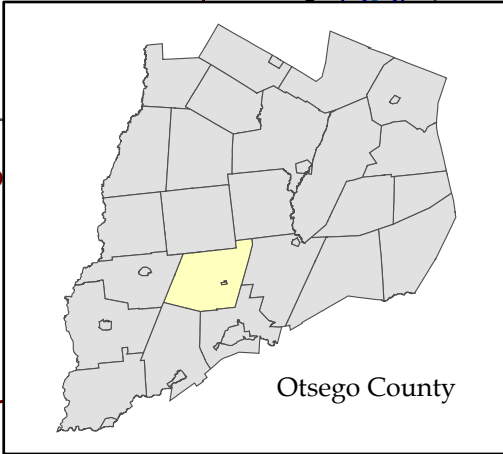


**Laurens, NY
F-6**

Facility/Owner	Location	Parcel ID #
Laurens Fire Department	Main St.	240.15-2-74.00
Laurens Central School	Main St.	240.15-2-41.00
Laurens Library	Main St.	240.15-2-43.00
Laurens American Legion	Main St.	240.15-2-28.00
Laurens Masonic Lodge	Brook & Craft St.	240.15-2-17.00
Laurens Town Hwy	37 Brook St.	240.11-1-35.00
Laurens Town Hall	37 Brook St.	240.11-1-22.00
Laurens Post Office	Brook St.	240.11-2-1.31
Laurens Bus Garage	Co. Hwy 11 & Pool Brook Rd	240.00-2-11.00
Water Treatment Plant	St. Hwy 205	240.00-2-44.02
Laurens Lutheran Church	Co. Hwy 11/Main St.	240.11-2-5.00
Laurens Reservoir	Airport Road	257.00-1-69.00
Mt. Vision Fire Department	Co. Hwy 11B	208.01-1-19.00
Mt. Vision Post Office	Co. Hwy 11B & St. Hwy 205	208.01-1-26.00
Mt. Vision Baptist Church	Co. Hwy 11B	208.01-1-5.01
Mt. Vision Methodist Church	St. Hwy 205	208.03-1-15.00
West Laurens Fire Dept	St. Hwy 23	238.00-2-67.00
West Laurens Church	Co. Hwy 10	238.00-2-30.00

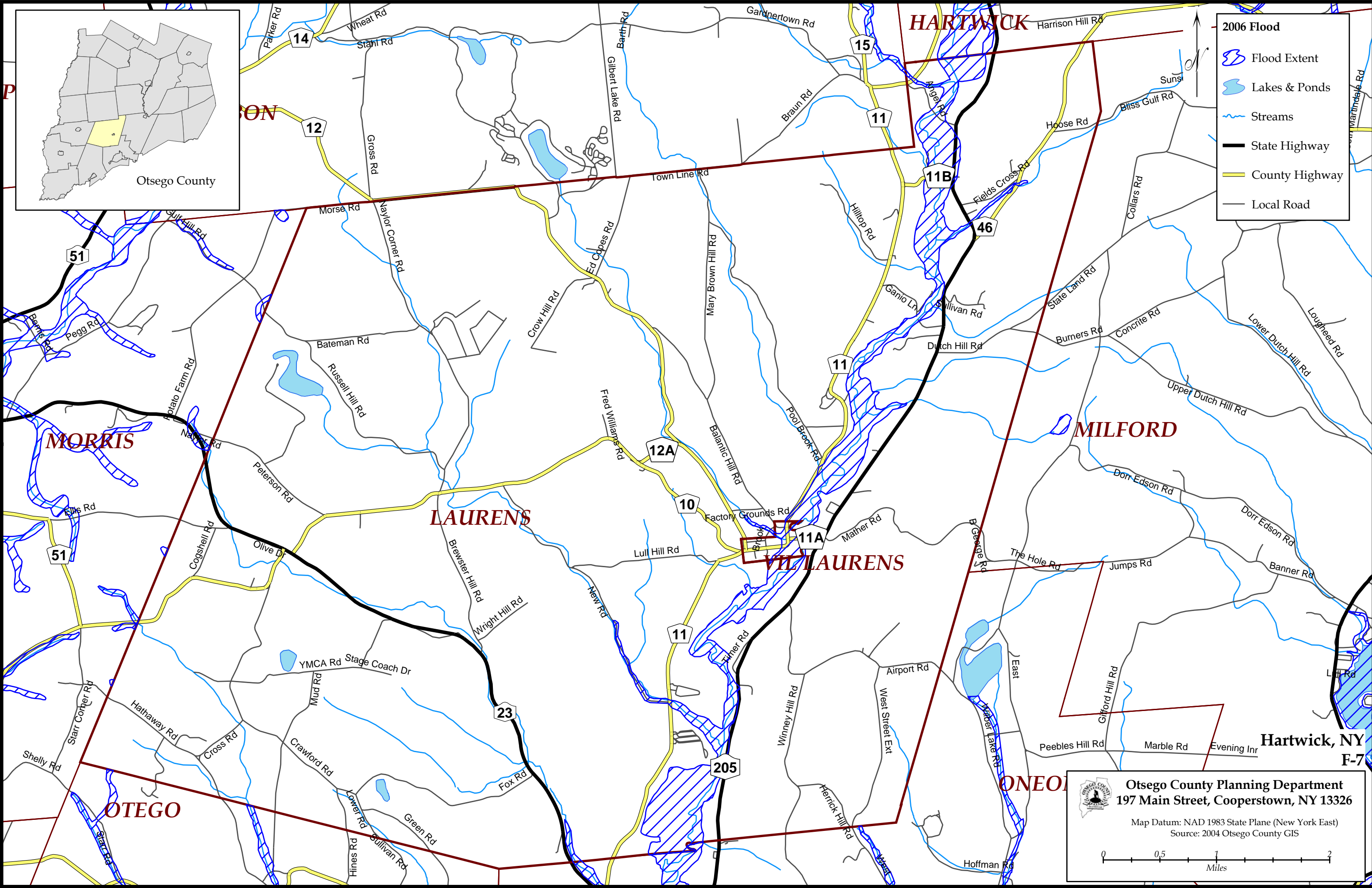
Otsego County Planning Department
 197 Main Street, Cooperstown, NY 13326

Map Datum: NAD 1983 State Plane (New York East)
 Source: 2004 Otsego County GIS



2006 Flood

- Flood Extent
- Lakes & Ponds
- Streams
- State Highway
- County Highway
- Local Road

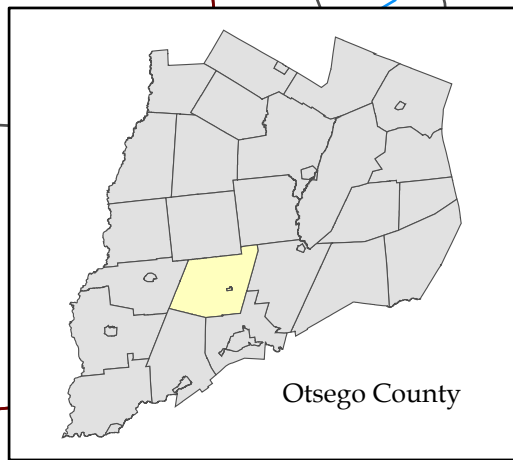


Otsego County Planning Department
 197 Main Street, Cooperstown, NY 13326

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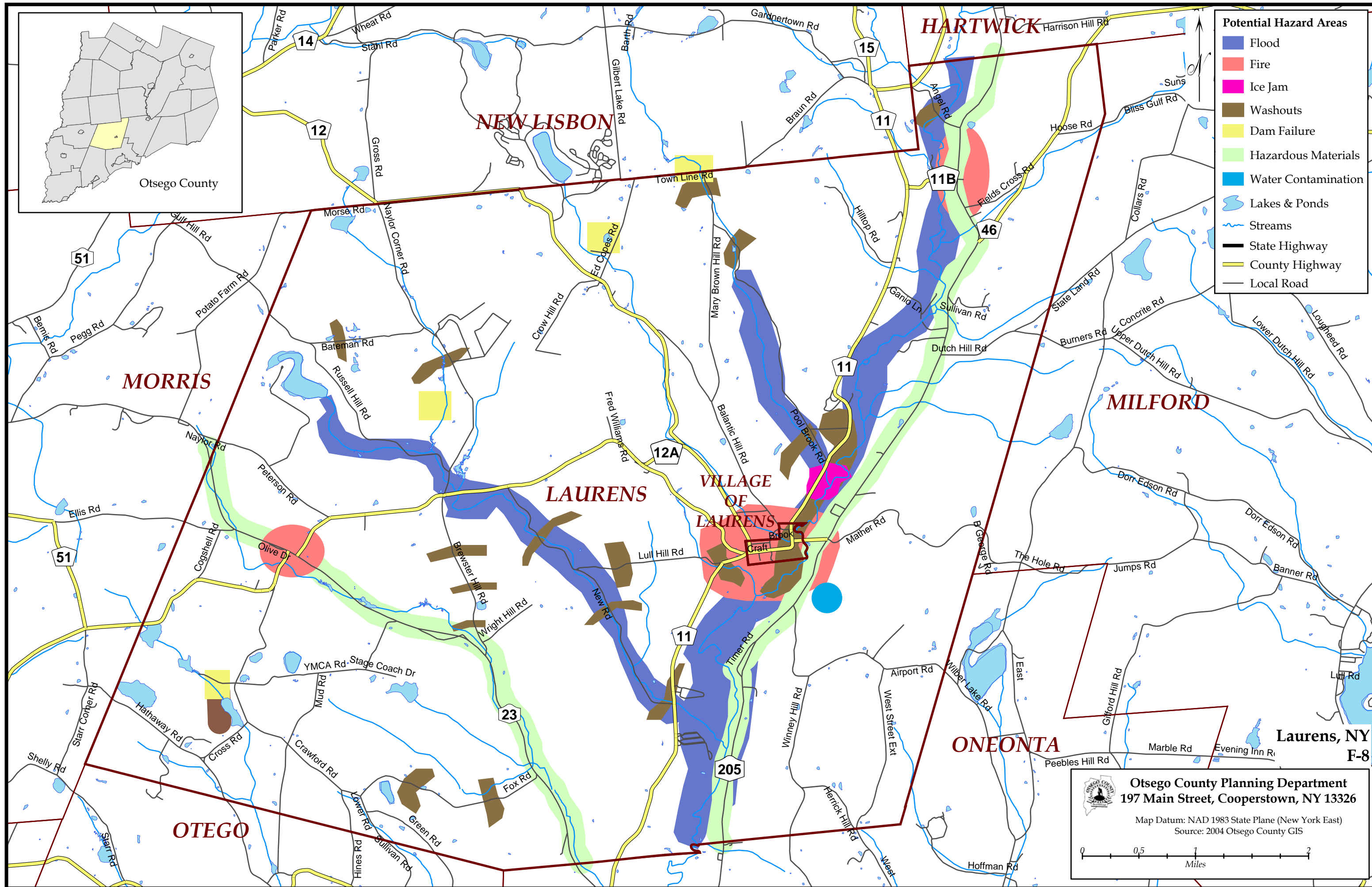
0 0.5 1 2
 Miles

Hartwick, NY
 F-7



Potential Hazard Areas

- Flood
- Fire
- Ice Jam
- Washouts
- Dam Failure
- Hazardous Materials
- Water Contamination
- Lakes & Ponds
- Streams
- State Highway
- County Highway
- Local Road



**Laurens, NY
F-8**

Otsego County Planning Department
 197 Main Street, Cooperstown, NY 13326

Map Datum: NAD 1983 State Plane (New York East)
 Source: 2004 Otsego County GIS