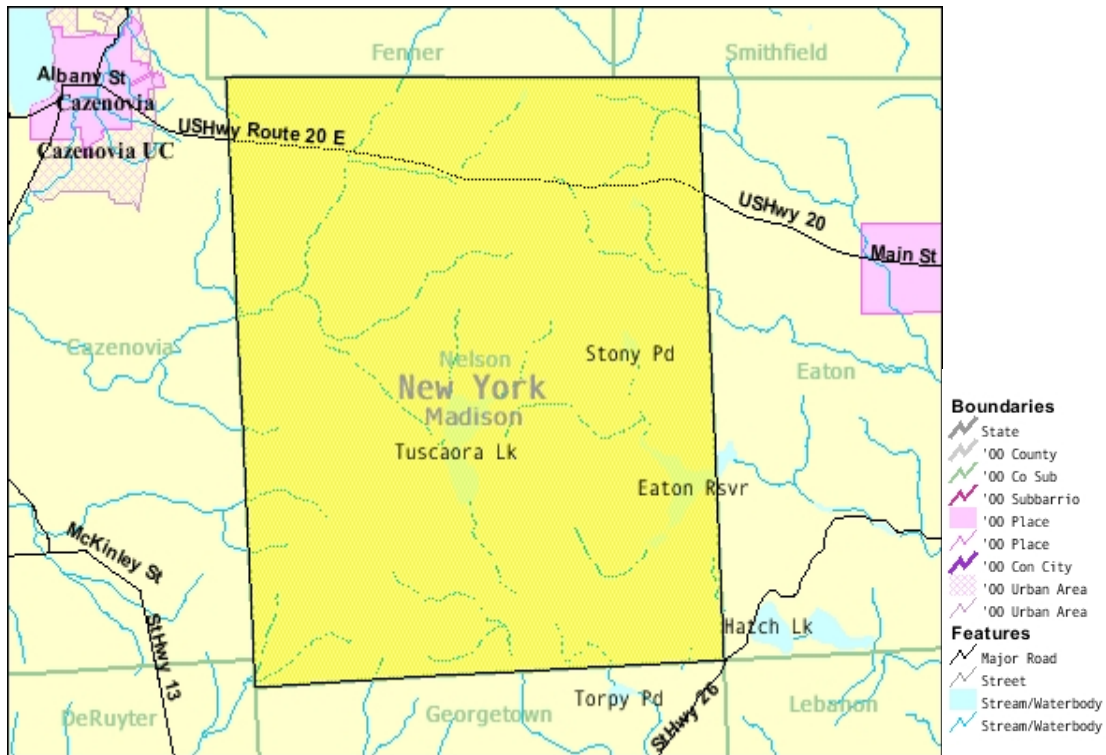


## Town of Nelson



Contact	Title	Phone
Roger Bradstreet	Town Supervisor	(315) 655-9573
Debbie Costello	Town Clerk	(315) 655-8582
John Sevier	Highway Superintendent	(315) 662-7942
John Dunkle	Planning Board Chairman	(315)
Roger Cook	Code Enforcement Officer	(315) 655-8582

### Background

The Town of Nelson is a community of 1,980 residents located in the central portion of the county. 71.7% of the residents are between the ages of 18 and 65, while only 9.6% are over the age of 65 (residents). The town currently encompasses approximately 44 square miles. The town has an equalized assessed value of approximately \$144 million dollars, which is distributed across a variety of property classes. There are 409 single family occupied homes within the town.

### Land Use and Development Trends

The Town has a long-range plan to remain rural ag-residential. There have not been many multi-lot subdivisions in the Town recently because of the NYS requirement for a fairly involved Storm-water Plan. Most construction is in the form of single family homes. A waterfront zone around Eaton Brook and Tuscarora Reservoirs encourages an increase in the size of lots around the lakes.

# MADISON COUNTY HAZARD MITIGATION PLAN 2016

## Assets

Town Hall: Located at 4085 Nelson Road

This building houses the office of the Supervisor and Town Clerk and has a meeting area that can accommodate up to 70 people. This building does not have a generator and is not wired for an outside generator in case of a power failure.

Highway Department: Located at 3985 Dugway Road, Erieville

This location includes a garage for truck storage and repair as well as a salt storage structure. This garage is equipped with a manual throw switch for an outside generator in the event of a power failure. Their generator is strong enough to power a welder.

Equipment includes:

- 1 F-550 all-wheel drive dump truck
- 1 6-wheel truck w/plow & sander
- 1 10-wheel dump truck
- 2 10-wheel trucks w/plow & sander
- 1 10-wheel all-wheel drive truck w/plow & sander
- 1 ¾-ton 4x4 pickup truck
- 1 front end loader
- 1 rubber-tired backhoe
- 1 grader
- 1 roller
- 1 tractor w/boom mower

Erieville Fire Department – Located on Eatonbrook Road just west of Nelson Road. This building is equipped with a gas powered generator that kicks on automatically in case of a power failure.

## Local Organization and Regulations

Town Board meets on the 2<sup>nd</sup> Thursday of each month at 7 PM. Most of the Town of Nelson is protected by the Erieville Fire Department. A portion of the Town on the east is protected by the Morrisville Fire Department while a portion on the west is protected by the Cazenovia Fire Department.

The Town Highway Department will receive approximately \$70,000 in State Chips money for road maintenance in 2006.

Currently, the Town is looking for a local citizen who is interested in collecting weather data.

# MADISON COUNTY HAZARD MITIGATION PLAN 2016

## **The Planning Process**

Steve Lorraine, Madison County SWCD, contacted Town Supervisor, Roger Bradstreet on September 23, 2012 to discuss the hazard mitigation plan update process. The Town Council directed Mr. Lorraine to work with Highway Superintendent John Sevier to collect the information needed to prepare a section of the mitigation plan on the Town of Nelson. Mr. Lorraine met with Highway Superintendent Sevier on April 30, 2013 at the Town Highway garage. Potential problem areas in the Town were discussed and then located on a map supplied by Mr. Lorraine. Mr. Lorraine then met with the Town Board on October 10, 2013 to review the plan, which was approved.

## **Public Involvement**

Two meetings were held at which members of the public were invited to provide input on the hazard mitigation planning process. These meetings were publicized in the Syracuse Post Standard, Oneida Daily Dispatch, Canastota Bee Journal, and Cazenovia Republican. No members of the public attended these meetings. One citizen did call Madison County Soil and Water Conservation District from the City of Oneida to express concerns about flooding there. As soon as the first draft of the entire plan for Madison County is finished, it will be posted on the Madison County website. All members of the public will be provided a means of providing input at that time.

## **Hazards**

As part of the Madison County Comprehensive Emergency Management Plan, a Hazard Analysis was conducted using the HAZNY program with data supplied by the National Oceanic & Atmospheric Administration, and ESRI Hazards data. This HAZNY analysis identified Moderately High Danger in order from Severe Storms, Transportation Accidents, Winter Storms, Fires, and HAZMAT (in Transit). The HAZNY analysis identified Moderately Low Danger in order from Ice Storm, Terrorism, Flood, Utility Failure, Water Supply Contamination, Tornado, Oil Spill, HAZMAT (Fixed Site), Ice Jam, Infestation, Radiological (Fixed Site), Extreme Temperatures, Epidemic, Drought, and Explosion. The Madison County Hazard Mitigation Plan is required by FEMA to address natural disasters. Sections of this plan have been written on a County-wide basis for Severe Storms, Transportation Accidents, Winter Storms, Fire, Ice Storm/ Utility Failure, Flood/ Hurricane, and Tornado. The following table is used to determine whether or not the local community's hazard danger differs from the County as a whole for natural disasters and a few chosen man-made disasters. The local community can also decide whether or not a section on a particular hazard should be written specifically for that municipality.

## MADISON COUNTY HAZARD MITIGATION PLAN 2016

Hazard	Madison Co. Class.	Madison Co. Ranking	Town of Nelson Probability Greater (G), Lesser (L) About Equal (E)	Town of Nelson Issues Beyond County-wide Plan Yes (y), No (n)
Severe Storms	Mod. High	312.2	G	N
Transportation Accidents	Mod. High	285.2	L	Y
Winter Storms	Mod. High	272.2	E	Y
Fires	Mod. High	265.2	L	N
Ice Storms	Mod. Low	236.2	G	N
Flood	Mod. Low	222.8	L	Y
Utility Failure	Mod. Low	218.5	G	Y
Tornado	Mod. Low	202.5	E	N
Ice Jam	Mod. Low	180.5	L	N
Infestation	Mod. Low	173.8	L	N
Extreme Temperatures	Mod. Low	169.8	G	N
Epidemic	Mod. Low	164.2	L	N
Drought	Mod. Low	164.2	E	N
Wildfire	Low	160.5	E	N
Wave Action	Low	159.5	L	N
Dam Failure	Low	159.2	L	N
Hurricane	Low	158.8	E	N
Earthquake	Low	150.5	E	N
Blight	Low	96.2	E	N
Landslide	Not Rated		E	N

### Types of Mitigation Measures

This section is used to indicate the types of mitigation actions that already are in use in the Town of Nelson.

**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.

	Building Code	Density Controls	Design Review Standards	Easements	Environmental Review Standards	Flood plain Development Regulations	Floodplain zoning
Nelson Program	State BOCA Codes	Subdivision Rules	Local Ordinance State Health & Fire Codes	To Stormwater basins for maintenance	SEQR for major subdivisions	Federal Flood Insurance Rules apply	No

## MADISON COUNTY HAZARD MITIGATION PLAN 2016

Transfer of Development Rights	Hillside Development Regulations	Open Space Preservation	Performance Standards	Streambank Setback Regulations	Special Use Permits	Stormwater Management Regulations	Subdivision & Development Regulations
State & Federal Programs Available for Ag	Construction allowed up to a set % grade	Subdivision Rules	Penalties under zoning rules	State Health rules for septic systems	Yes	State Regs Apply	Yes

**Property Protection** - Actions that involve the modification of existing buildings or structures to protect them from a hazard, or removal from the hazard area.

	Acquisition of Hazard Prone Structures	Construction of Barriers Around Structures	Elevation of Structures	Relocation Out of Hazard Areas	Structural Retrofits (e.g. floodproofing)
Nelson Program	On occasion under tax sale	No	No	No	No

**Public Education and Awareness** - Actions to inform and educate citizens, elected officials, and property owners about the hazards and potential ways to mitigate them.

	Hazard Information Centers	Outreach Programs	Real Estate Disclosure	School-age and Adult Education Programs
Nelson Program	Town Clerk distributes Health Dept. information	Education of Elected to NIMS Standards	State Rules Apply	No

**Natural Resource Protection** - Actions that, in addition to minimizing hazard losses, also preserve or restore the functions of natural systems.

	Best Management Practices	Forest & Vegetation Management	Sediment & Erosion Control Regulations	Stream Corridor Management	Stream Dumping Regulations	Urban Forestry & Landscape Management	Wetlands Development Regulations & Restoration	Watershed Management
Nelson Program	Technical Assistance from County	NYS DEC 480A Program available	State Regs for greater than 1	No	State Rules Apply	No	State & Federal Rules Apply	Oneida lake Program;

## MADISON COUNTY HAZARD MITIGATION PLAN 2016

	SWCD		acre developm ent;				
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**Emergency Services** - Actions that protect people and property during and immediately after a disaster or hazard event.

	Critical Facilities Protection	Emergency Response Services	Hazard Threat Recognition	Hazard Warning Systems	Health & Safety Maintenance	Post Disaster Mitigation
Nelson Program	Emergency Generator hook-up for Town Highway Department	Fire Dept., Ambulance, State Police, County Sheriff	MSDS Sheets on File with Fire Department	911 Center Alert System:	County Health Department Rules for drinking water and minimum living standards	Red Cross

**Structural Projects** - Actions that involve the construction of structures to reduce the impact of a hazard.

	Channel Maintenance	Dams/ Reservoirs	Levees & Floodwalls	Safe Room/ Shelter
Nelson Program	No	State Dam at Tuscarora Reservoir	No	Red Cross Shelters in Cazenovia and Morrisville

### **Incorporation of Hazard Mitigation Plan requirements into local planning mechanisms**

The foregoing list of existing mitigation measures and the proposed mitigation actions that follow will be considered during the next rewrite of the Town of Nelson Master Plan.

### **Mitigation Actions by Hazard**

#### **A. Flooding**

#### **Mitigation Goals**

Minimize loss of property, risk of injury, damage to the environment, and loss of infrastructure from 500-year flooding events.

# MADISON COUNTY HAZARD MITIGATION PLAN 2016

## Historical Events

*April 2-4, 2005 Severe Storms and Flood Event* - This was declared disaster FEMA 1589 DR NY. Flooding was caused by rain in conjunction with snowmelt.

*May 2000 Flood Event* – This spring runoff event was declared disaster FEMA 1335 DR NY. The Town of Nelson reported \$15,863.03 in damages and received \$12,012.78 in federal assistance for this event.

*January '96 Flood* – This was a region wide event in which a warm rain fall melted an accumulated snowpack. It was believed to be comparable to the 50 year frequency storm of 4.9 inches in a 24 hour period.

## Locations Subject to Hazard

*North Lake Road Jones Road and Old State Road* – During the January '96 event, flooding was caused by a lack of capacity for a large culvert under North Lake Road by the Tuscarora Inn.

*Hall Road* – ¼ mile section at top of hill had road shoulder washed out during January '96 flood. Top of hill is bowl-shaped and water is unable to outlet. Icing is a common problem.

*Irish Hill Road* – Development in this area has led to an increase in stormwater runoff to road ditches that outlet into an intermittent stream that flows towards Hardscrabble Road. This increase in runoff has led to bank erosion on this intermittent stream and deposition of sediment in a pond located just south of Hardscrabble Road.

*Lyons Road* – This location was inundated with water during the January '96 flood. This road is surrounded by swamp land on both sides.

*Sanderson Road* – This location reported road ditch damage following the Spring 2000 flood. Additional damage reported after the April 2005 flood event.

### *Flooding Associated with Beaver Activities:*

- *Francis Road* – A 45 foot culvert pipe at this location overflowed in July, 2004.
- *Willowvale Road* – Grates placed across the culvert inlet prevent the culvert from being plugged. Regular cleaning of these grates maintains water flow through the culvert.
- *Old State Road*
- *Sanderson and Eden Hollow Roads*
- *Torpy Road*
- *Hall Road* – This location has a history of beaver activity but none are present at this time.
- *Tuscarora Road*
- *Nelson Road*

## MADISON COUNTY HAZARD MITIGATION PLAN 2016

### Potential and/ or Historical Losses

North Lake Road – During the January 96 flood, water ran through the restaurant, Rosie' Tuscarora Inn, and washed out the parking lot. It is estimated that there was \$60,000 in damage.

Jones Road and old State Road – For the April 2005 flood, 80 feet of road shoulder was washed out and a 24 inch x 40 foot culvert required replacement. Total damage was listed as \$3,300.80. a 24 inch x 40 foot culvert required replacement. Total damage was listed as \$3,300.80.

Old State Road – For the April 2005 flood, 300 feet of road shoulder and one driveway culvert was damaged by erosion. Total damage was \$1,641.65.

Hall Road - More research is needed to assess losses.

Irish Hill Road - For the April 2005 flood, 800 feet of road shoulder and 500 feet of ditch was damaged by erosion.

Lyons Road – During floods, not much physical damage occurs at this location because slow moving water does not wash out the road or shoulder. Losses for this location would be associated with the loss of use of the road for 2 days during a major flood event.

Sunrise Boulevard - For the April 2005 flood, 180 feet of road shoulder and ditch was damaged by erosion.

Davis Hill Road - For the April 2005 flood, 650 feet of road shoulder was damaged by erosion.

Eden Hollow Road - For the April 2005 flood, 170 feet of road shoulder was damaged by erosion.

Stone Bridge Road - For the April 2005 flood, 120 feet of road shoulder was damaged by erosion.

Sanderson Road - For the April 2005 flood, 700 feet of road shoulder and 1100 feet of road surface was damaged by erosion. Total damage was \$21,641.71.

Green Road - For the April 2005 flood, 150 feet of road shoulder and two 15 inch x 40 foot culverts were damaged by erosion. Culverts were upgraded to 18 inch diameter. Total damage was \$3,920.

Westcott Road - For the April 2005 flood, a 12 inch x 40 foot culvert was damaged by erosion. This culvert was upgraded to a 15 inch diameter culvert. Total loss was \$1,373.24.



## MADISON COUNTY HAZARD MITIGATION PLAN 2016

### Mitigation Strategies

Project #	Project Name	Description	Lead Agency	Estimated Cost
T/Nelson#1	Jones Road Culvert Repairs	Runoff from forest land resulted in flooding damages to the culvert at Jones Road at the junction of Old State Road. The project will replace the existing 15" by 50' culvert with a 30" by 50' culvert and replace the existing 24" by 50' culvert with a 36" by 50' culvert.	Town of Nelson Highway	\$19,200
T/Nelson#2	Hughes Road Culvert Repairs	Runoff from higher elevations resulted in flooding damages to the culvert at Hughes Road. The project will replace the existing 15" by 50' culvert with a 24" by 50' culvert.	Town of Nelson Highway	\$6,000
T/Nelson#3	Thomas Road Culvert Repairs	Runoff from higher elevations resulted in flooding damages to the culvert at Thomas Road. The project will replace the existing 18" by 40' culvert with a 30" by 50' culvert.	Town of Nelson Highway	\$9,600
T/Nelson#4	Green Road Reconstruction	Flooding resulted in damages to North Lake Road. The project will install 650' of 18" culvert with 6 drop basins, pave or riprap bank shoulders, install two concrete headwalls, replace the existing 15" by 100' culvert with a 24" by 100' culvert, and install debris catchers.	Town of Nelson Highway	\$12,000
T/Nelson#5	North Lake Road Culvert Repairs	Build increased drainage capacity of the under-road structure reducing flooding and road erosion during severe storm events.	Town of Nelson Highway	\$60,000
T/Nelson#6	Sunrise Boulevard Reconstruction	Runoff from higher elevations resulted in flooding damages to Sunrise Boulevard. The project will enlarge and line 200' of ditch and replace a 24" by 30' culvert with a 30" by 30' culvert.	Town of Nelson Highway	\$12,000

## MADISON COUNTY HAZARD MITIGATION PLAN 2016

T/Nelson#7	Eden Hollow Road Improvement	Stabilize road-side embankment to reduce erosion that deposits soil onto roadway during severe storm events.	Town of Nelson Highway	\$15,000
T/Nelson#8	Hall Road Drainage System	Prevent road shoulder washing out during severe storm events and icing conditions during the winter months.	Town of Nelson Highway	\$9,100

### Prioritization

The STAPLEE process is the means by which proposed mitigation actions are prioritized for a community. The STAPLEE process utilizes the following criteria:

- **Social:** Will this action be acceptable to the community and individuals affected?
- **Technical:** Is the action a long term technically feasible solution with little or no secondary impacts?
- **Administrative:** Are the staff and funding available to implement and maintain the action?  
NOTE: Inadequate resource did not eliminate consideration of an action.
- **Political:** Is the action supported by political leaders and the public?
- **Legal:** Does the municipality have the legal authority to implement the proposed action?
- **Economic:** Is this action a cost effective method for providing hazard mitigation and community benefits?
- **Environmental:** Is this action consistent with community environmental goals?

The following table uses the STAPLEE System to rate proposed mitigation actions.

+ 1 is Favorable, -1 is Unfavorable, N is Neutral or Not Applicable

A Score of 6 -7 is a high priority, 3-5 is a medium priority, 2 or less is a low priority

Proposed Mitigation Action								
	Soc	Tech	Admin	Polit	Legal	Econ	Enviro	Score
Jones Road Culvert Repairs	+1	+1	-1	+1	+1	+1	+1	5
Hughes Road Culvert Repairs	+1	+1	-1	+1	+1	+1	+1	5
Thomas Road Culvert Repairs	+1	+1	-1	+1	+1	+1	+1	5
Green Road Reconstruction	+1	+1	-1	+1	+1	+1	+1	5
North Lake Road Culvert Repairs	+1	+1	-1	+1	+1	+1	+1	5
Sunrise Boulevard Reconstruction	+1	+1	-1	+1	+1	+1	+1	5
Eden Hollow Road Improvement	+1	+1	-1	+1	+1	+1	+1	5

## MADISON COUNTY HAZARD MITIGATION PLAN 2016

Hall Road Drainage System	+1	+1	-1	+1	+1	+1	+1	5
Beaver Control Program	N	+1	-1	+1	+1	-1	-1	2

### **Plan Monitoring and Update**

The Madison County Office of Emergency Preparedness will be responsible for monitoring the status of the County Hazard Mitigation Plan and all of the subsections of the plan specific to local municipalities. During the first quarter of every calendar year, the Emergency Preparedness Director will (most likely by e-mail) contact the Town of Nelson’s Highway Superintendent and submit a copy of the evaluation form. The Town’s Highway Superintendent will complete and return this form within 10 business days.

During the second quarter of the year, the County Emergency Preparedness Director, will prepare an annual summary report for progress in implementing the County Hazard Mitigation Plan. Included in this plan will be the following:

- A summary and analysis of all disasters that have struck Madison County during the previous calendar year,
- a gap analysis for the hazard mitigation plan for any disasters that occurred during the previous calendar year,
- a listing of funding opportunities made available from FEMA and SEMO during the 12 months prior to the annual summary report,
- a summary of the progress that has been made towards accomplishing mitigation measures during the previous calendar year,
- problems encountered in implementing the plan,
- And, recommendations for changes to the Hazard Mitigation plan.

A copy of this report will be sent to the Town’s Highway Superintendent and will be posted on the Madison County Website. Public Comment will be accepted based on review of these reports and the County’s Plan available on this web site.

Every five years after the plan receives its FEMA approval and adoption by the Nelson Town Board, the County Emergency Management Director will update the County Hazard Mitigation Plan and the Town of Nelson annex based on reports supplied by the Town’s Highway Superintendent and other municipalities, as well as input from the public. This updated plan will be submitted to the Town of Nelson for approval before being forwarded to FEMA.