

Appendix G – HAZNY

CATTARAUGUS COUNTY

Hazard Analysis Report

DRAFT COPY

**New York State Emergency Management Office
January 1999**

Background

On August 25, 1998, Cattaraugus County, in conjunction with the New York State Emergency Management Office, conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and Cattaraugus County**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. *HAZNY* is designed specifically for group, rather than individual use. Cattaraugus County assembled a group of eleven local officials to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from the State Emergency Management Office facilitated the meeting and recorded the results.

The Results

The Group analyzed 23 hazards potentially affecting Cattaraugus County. *HAZNY* rated each hazard based on the Group's assessment and assigned a numerical value. These values are categorized as follows:

301 to 400	HIGH HAZARD
201 to 300	MODERATELY HIGH HAZARD
101 to 200	MODERATELY LOW HAZARD
44 to 100	LOW HAZARD

The Group rated the 25 hazards as follows:

Ice Storm	281.2
Flood	260.5
Power Failure	259.5
Winter Storm	243.8
Ice Jam	237.8
Civil Unrest	218.2
Wind Storm	209.8
Thunderstorm	203.2
Hazardous Materials at Fixed Sites	198.2
Drought	195.8
Transportation Accident	194.2
Fire	190.8
Dam Failure	190.8
Hazardous Materials in Transit	188.2
Terrorism	181.8
Oil Spill	180.2
Infestation	179.8
Tornado	179.2
Wildfire	174.8
Water Supply Failure	174.2
Year 2000 Date Change	158.2
Earthquake	143.2
Extreme Temperatures	138.5
Epidemic	137.2
Radiological Materials at Fixed Site	128.2

High Hazards

None of the hazards reviewed were rated as a High Hazard.

Moderately High Hazards

Eight hazards were determined to be Moderately High Hazards. These are **Ice Storm, Flood, Power Failure, Winter Storm, Ice Jam, Civil Unrest, Windstorm, and Thunderstorm.**

Ice Storm, rated at 281.2, was the highest rated hazard in the County. In terms of its ability to cause serious injury or death, the Group considered highway accidents as the primary impact during an ice storm. However, it was believed that serious injury or death would not be in large numbers, and any casualties could be adequately treated through the normal operation of

the emergency medical system within the County. Ice Storm is a frequent event in Cattaraugus County, occurring at least once each year. Some ice storms, such as the storm in 1993, last two to three days before the ice melts. The damage caused by ice storms was described as moderate and consists primarily of power outages and damage to utility poles and wires.

Flood, rated at 260.5, is a regular event in Cattaraugus County, occurring between once a year and once every seven years. There has been major flooding declared as Federal disasters in 1956, 1967, 1972, 1996, and 1998. The flood in 1972 resulting from Tropical Storm Agnes covered a large region of the County and remained at flood stage for four days to a week. During this time, the flooding covered an area approximately 25% greater than the designated flood plains. Based on previous experience, recovery would be expected to take three days to one week before all of the basements are pumped out and traffic returned to normal.

The County is at high risk for flash flooding which increases the possibility of serious injury or death. However, in a worse case event, the Group determined that any casualties could be adequately treated through the normal operation of the County's emergency medical system. Historically, there has not been any serious injuries or death in the County as a result of flash flooding, even with Agnes in '72. Because of the flash flood potential, it was determined that there would be severe damage to private property and well as severe structural damage to public facilities, such as roads and bridge abutments. The Group determined that it is highly likely that there could be a cascade effect in a worse case flood, such as power failures.

Power Failures, rated at 259.5, are largely a cascade effect of other hazards, such as flooding, ice storms, and high winds. It was determined that a worst case power failure could cover a large region, and likely cause serious injury or death, but not in large numbers. Power Failures were determined to be a regular event, occurring between once a year and once every seven years.

Winter Storm, rated at 243.8, occur frequently, more than once a year in Cattaraugus County. Being in a "Snow Belt" exacerbates the situation, causing cascade effects such as power outages and transportation accidents. The damage to private property was described as moderate, resulting in collapsed roofs and frozen pipes. There is usually up to a day warning time, but this can be shorter when lake effect snows are predominating.

Ice Jams, rated at 237.8, occur as a regular event, between once a year a once every seven years in the Allegany River and Cattaraugus Creek. Some of the worst events have occurred recently, in 1994 and 1996.

Civil Unrest, rated at 218.2, has been a regular event primarily due to the presence of the Seneca Nation of Indians, who have on various occasions, protested the collection of State sales taxes for products sold to non-Native Americans on reservations. In the event of a worst case scenario, it was believed that cascade effects, such as fires, could occur. Serious injury or death

is likely, but not in large numbers. In the past, there have been some injuries to law enforcement personnel.

Windstorm, rated at 209.8, is defined as a storm with winds in excess of 55 mph. These have been regular events. Damage to private property would be expected to be moderate, such as root damage and uprooted trees.

Thunderstorms, rated at 203.2, are a regular event with the potential to cause cascade effects such as power outages and flash floods.

Moderately Low Hazards

Fifteen hazards were determined by the Group to be Moderately Low Hazards. These are **Hazardous Materials at Fixed Sites, Drought, Fire, Dam Failure, Hazardous Materials in Transit, Terrorism, Transportation Accidents, Oil Spill, Tornado, Wildfire, Water Supply Failure, Infestation, Year 2000 Date Change, Earthquake, Extreme Temperatures, Epidemic, and Radiological at Fixed Sites.**

The hazard **Radiological at Fixed Sites** was identified because of the location of the West Valley Demonstration Project in the County. However, the process of vitrification of radioactive sludge is such that there is no significant threat of a radioactive release off-site.

Low Hazards

The analysis produced no Low Hazards. This might be due to the fact that several hazards were deemed not applicable to the County, and thus, were not analyzed. This includes **Air Contamination, Avalanche, Blight, Explosion, Food Shortage, Fuel Shortage, and Radiological in Transit.**

Recommendations

The State Emergency Management Office recommends that Cattaraugus County investigate mitigation measures for the hazards **Ice Storm, Flood, and Winter Storm**, which are among the four highest rated hazards. **Power Failure**, although rated as the third highest hazard, is essentially a cascade effect of ice storms and flooding, and would be addressed during the mitigation efforts for these hazards.

HAZARD	SCOPE		FREQUENCY			IMPACT			ONSET			DURATION			RISK											
	Potential Area of Impact	Cascade Effect	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury/Death Small #s	Injury/Death Large #s	Life or No Damage	Moderate Damage	Severe Damage	No Warnings	Up to One Day Warning	Up to One Week Warning		More Than A Week	Less Than One Day	One Day	Two to Three Days	Four Days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks
Ice Storm	Small Region	Highly Unlikely																								201.2
Flood	Small Region	Highly Unlikely																								200.0
Power Failure	Small Region	Some Potential																								200.5
Winter Storm (Snow)	Small Region	Some Potential																								200.5
Ice Jam	Small Region	Highly Unlikely																								200.5
Oil Unleak	Small Region	Highly Unlikely																								200.5
Windstorm	Small Region	Some Potential																								200.5
Thunderstorm	Small Region	Some Potential																								200.5
Haz Mat Flood Site	Small Region	Some Potential																								200.5
Drought	Small Region	Some Potential																								200.5
Transportation Accident	Small Region	Some Potential																								200.5
Fire	Small Region	Some Potential																								200.5
Dam Failure	Small Region	Some Potential																								200.5
Haz Mat in Transit	Small Region	Some Potential																								200.5
Terrorism	Small Region	Some Potential																								200.5
Oil Spill	Small Region	Some Potential																								200.5
Intoxication	Small Region	Some Potential																								200.5
Tornado	Small Region	Some Potential																								200.5
Wildfire	Small Region	Some Potential																								200.5
Water Supply Failure	Small Region	Some Potential																								200.5
Year 2000 Date Change	Small Region	Some Potential																								200.5
Earthquake	Small Region	Some Potential																								200.5
Extreme Temperature	Small Region	Some Potential																								200.5
Explosion	Small Region	Some Potential																								200.5
Radioactive Flood Site	Small Region	Some Potential																								200.5

***CATTARAUGUS COUNTY
NEW YORK***

Hazard Analysis Report



**Prepared by:
New York State Emergency Management Office
July 2003**

Background

On July 1, 2003, the County of Cattaraugus, in conjunction with the New York State Emergency Management Office, conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and the County of Cattaraugus**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. *HAZNY* is designed specifically for groups, rather than individual use. The County assembled a group of 12 local, county and state officials to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from the State Emergency Management Office and The Finger Lakes Regional Planning Council facilitated the meeting and recorded the results.

The Results

The Group analyzed 21 hazards potentially affecting Cattaraugus, electing to break Terrorism into three (3) categories as Biological, Radiological and Chemical. *HAZNY* rated each hazard based on the Group's assessment and assigned a numerical value. These values are categorized as follows:

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

The Group rated the 21 hazards as follows:

Civil Unrest	293.2
Hazardous Materials in Transit	274.7
Ice Storm	271.8
Severe Storms	270.2
Explosion	261.2
Flood	249.8
Winter Storm	245.2
Terrorism-Biological	242.0
Epidemic	242.0
Hazardous Material at Fixed Sites	238.7
Water Supply Contamination	238.7
Terrorism-Radiological	235.0
Wildfire	232.5
Terrorism-Chemical	230.3
Tornado	217.5
Ice Jam	217.2
Transportation Accident	208.5
Dam Failure	186.2
Earthquake	162.5
Radiological (Fixed Site)	157.5
Radiological (in-transit)	119.8

All other hazards listed in the Hazny program were deemed by the group to be **extremely** low and therefore were not given a numerical rating.

High Hazards

None of the hazards listed were rated as high hazards by the planning group.

Moderately High Hazards

Nine hazards were determined to be Moderately High Hazards. They are, **Civil Unrest**, **HazMat In-transit**, **Ice Storm**, **Severe Storm**, **Explosion**, **Flood**, **Winter Storm**, **Terrorism-Biological** and **Epidemic**.

CIVIL UNREST: 293.2, Moderately High Hazard

Potential Impact: Large Region

Cascade Effects: Highly Likely

Frequency: Regular 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.
- Little or no damage to private property.
- Moderate structural damage to public facilities/infrastructure.

HAZMAT IN TRANSIT: 274.7, Moderately High Hazard

Potential Impact: Small Region

Cascade Effects: Highly Likely

Frequency: Infrequent Event

Onset: No Warning

Hazard Duration: More than one week

Recovery Time: One to two days

Impact:

- Serious injury or death is likely to extremely large numbers.
- Severe damage to private property.
- Little or no structural damage to public facilities.

ICE STORM: 271.8, Moderately High Hazard

Potential Impact: Large Region

Cascade Effects: Highly Likely

Frequency: Infrequent Event

Onset: Several Hours 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.

SEVERE STORM: 270.2, Moderately High Hazard

Potential Impact: A large region

Cascade Effects: Highly Likely

Frequency: Regular Event

Onset: No Warning

Hazard Duration: Less than one day

Recovery Time: Three days to one week

Impact:

- Serious injury or death likely, but not in large numbers.
- Severe damage to private property.
- Moderate structural damage to public facilities.

EXPLOSION: 261.2, Moderately High Hazard

Potential Impact: Single location
Frequency: Regular event
Hazard Duration: Less than one day

Cascade Effects: Highly likely
Onset: No warning
Recovery Time: More than two weeks

Impact:

- Serious injury or death in large numbers.
- Moderate damage to private property.
- Moderate structural damage to public facilities/infrastructure.

FLOOD: 249.8, Moderately High Hazard

Potential Impact: Large Region
Frequency: Infrequent event
Hazard Duration: More than one week

Cascade Effects: Highly likely
Onset: Several days
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.

WINTER STORM: 245.2, Moderately High Hazard

Potential Impact: Large region
Frequency: Regular event
Hazard Duration: Two to three days

Cascade Effects: Highly likely
Onset: Several hours warning
Recovery Time: One to two days

Impact:

- Serious injury or death is likely but not in large numbers
- Moderate damage to private property.
- Little or no damage to public facilities.

TERRORISM (Biological): 242.0, Moderately High Hazard

Potential Impact: Large region
Frequency: Rare event
Hazard Duration: More than one week

Cascade Effects: Highly likely
Onset: No warning
Recovery Time: More than two weeks

Impact:

- Serious injury or death is likely, in extremely large numbers.
- Little or no damage to private property.
- Little or no structural damage to public facilities.

EPIDEMIC: 242.0, Moderately High Hazard

Potential Impact: Large region

Cascade Effects: Highly likely

Frequency: Rare event

Onset: No warning

Hazard Duration: More than one week

Recovery Time: More than two weeks

Impact:

- Serious injury or death is likely in extremely large numbers.
- Little or no damage to private property.
- Little or no structural damage to public facilities.

Moderately Low Hazards

Ten hazards were determined by the Group to be Moderately Low Hazards. They are, HazMat Fixed Site, Water Supply Contamination, Terrorism-Radiological, Wildfire, Terrorism-Chemical, Tornado, Ice Jam, Transportation Accident, Dam Failure, and Earthquake.

HAZMAT FIXED SITE: 238.7, Moderately Low Hazard

Potential Impact: Small region

Cascade Effects: Highly likely

Frequency: Rare event

Onset: No warning

Hazard Duration: More than one week

Recovery Time: One to two days

Impact:

- Serious injury or death is likely in extremely large numbers.
- Severe damage to private property.
- Little or no structural damage to public facilities.

WATER SUPPLY CONTAMINATION: 238.7, Moderately Low Hazard

Potential Impact: Small region

Cascade Effects: Some potential

Frequency: Rare event

Onset: No warning

Hazard Duration: More than one week

Recovery Time: More than two weeks

Impact:

- Serious injury or death is likely in extremely large numbers.
- Moderate damage to private property.
- Moderate structural damage to public facilities.

TERRORISM (Radiological): 235.0, Moderately Low Hazard

Potential Impact: Small region

Frequency: Rare event

Hazard Duration: Less than one day

Cascade Effects: Highly likely

Onset: No warning

Recovery Time: More than two weeks

Impact:

- Serious injury or death is likely in extremely large numbers.
- Severe damage to private property.
- Moderate structural damage to public facilities.

WILDFIRE: 232.5, Moderately Low Hazard

Potential Impact: Small region

Frequency: Regular Event

Hazard Duration: Two to three days

Cascade Effects: Highly likely

Onset: No Warning

Recovery Time: Less than one day

Impact:

- Serious injury or death is unlikely.
- Moderate damage to private property.
- Little or no structural damage to public facilities.

TERRORISM (Chemical): 230.3, Moderately Low Hazard

Potential Impact: Small region

Frequency: Rare Event

Hazard Duration: More than one week

Cascade Effects: Highly likely

Onset: No Warning

Recovery Time: One to two days

Impact:

- Serious injury or death is likely in extremely large numbers.
- Moderate damage to private property.
- Moderate structural damage to public facilities.

TORNADO: 217.5, Moderately Low Hazard

Potential Impact: Large region

Frequency: Infrequent event

Hazard Duration: Less than one day

Cascade Effects: Highly likely

Onset: No warning

Recovery Time: Three days to one week

Impact:

- Serious injury or death is likely, but not in large numbers.
- Moderate damage to private property.
- Moderate structural damage to public facilities.

ICE JAM: 217.2, Moderately Low Hazard

Potential Impact: Several individual locations
Frequency: Regular event
Hazard Duration: Four days to one week

Cascade Effects: Highly likely
Onset: One day warning
Recovery Time: One to two days

Impact:

- Serious injury or death is unlikely.
- Moderate damage to private property.
- Moderate structural damage to public facilities.

TRANSPORTATION ACCIDENT: 208.5, Moderately Low Hazard

Potential Impact: A single location
Frequency: Infrequent event
Hazard Duration: More than one week

Cascade Effects: Highly likely
Onset: No warning
Recovery Time: One to two days

Impact:

- Serious injury or death is likely to large numbers.
- Little or no damage to private property.
- Little or no structural damage to public facilities.

DAM FAILURE: 186.2, Moderately Low Hazard

Potential Impact: Small region
Frequency: Rare event
Hazard Duration: One day

Cascade Effects: Highly likely
Onset: No warning
Recovery Time: One week to 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.

EARTHQUAKE: 162.5, Moderately Low Hazard

Potential Impact: Large region
Frequency: Rare event
Hazard Duration: Less than one day

Cascade Effects: Some potential
Onset: No warning
Recovery Time: One to two days

Impact:

- Serious injury or death is unlikely.
- Little or no damage to private property.
- Little or no structural damage to public facilities.

Low Hazards

Two low hazards were identified. They are, Radiological Fixed Site and Radiological In-Transit.

RADIOLOGICAL (Fixed Site): 157.5, Low Hazard

Potential Impact: Small region

Cascade Effects: Some potential

Frequency: Rare Event

Onset: No Warning

Hazard Duration: Four days to one week

Recovery Time: Three days to one week

Impact:

- Serious injury or death is unlikely.
- Little or no damage to private property.
- Little or no structural damage to public facilities.

RADIOLOGICAL (In-Transit): 119.8, Low Hazard

Potential Impact: A Single location

Cascade Effects: Some potential

Frequency: Rare Event

Onset: No Warning

Hazard Duration: One day

Recovery Time: Less than one day

Impact:

- Serious injury or death is unlikely.
- Little or no damage to private property.
- Little or no structural damage to public facilities.

Recommendations

Based upon this analysis, the State Emergency Management Office recommends that the County of Cattaraugus investigate initial mitigation measures for moderately **high hazards**, followed by moderately low and low hazards.

Hazards not selected for evaluation should be reviewed periodically to determine if **threat** or potential has changed since the last Hazny.

As threat potential of hazards change or as the capabilities of the county change, a **new** hazard analysis should be completed.

HAZNY

Background

On 4/14/11, the Cattaraugus County DPW conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Cattaraugus County DPW

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. Cattaraugus County completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Operations Manager analyzed hazards potentially affecting the Cattaraugus County DPW. *HAZNY* rated each hazard based on the Operation Manager's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
FLOOD	314
WINTER STORM (SEVERE)	271
SEVERE STORMS	253
ICE STORM	223
EARTHQUAKE	203
HAZMAT (FIXED SITE)	201
ICE JAM	196
DAM FAILURE	190
TORNADO	188
WATER SUPPLY CONTAMINATION	178
TERRORISM BIOLOGICAL	170
TERRORISM CHEMICAL	170
WILDFIRE/DROUGHT	168
TERRORISM RADIOLOGICAL	164
HAZMAT (IN TRANSIT)	157
RADIOLOGICAL (IN TRANSIT)	148
RADIOLOGICAL (FIXED SITE)	141
CIVIL UNREST	140
EXPLOSION	140
LANDSLIDE	140
EPIDEMIC	136
TRANS ACCIDENT	134
LANDSUBSIDENCE	125

Hazard(s) rated as moderately high: FLOOD, WINTER STORM (SEVERE), SEVERE STORMS

FLOOD: 314, Moderately High Hazard

- Potential Impact:** Throughout a Small Region
- Cascade Effects:** Highly Likely
- Frequency:** A Frequent Event
- Onset:** One Day Warning
- Hazard Duration:** More Than One Week
- Recovery Time:** More Than Two Weeks
- Impact:**
 - Serious Injury or Death Unlikely
 - Severe Damage to Private Property
 - Severe Structural Damage to Public Facilities

WINTER STORM (SEVERE): 271, Moderately High Hazard

- 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: One to Two Weeks
Impact:

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

SEVERE STORMS: 253, Moderately High Hazard

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

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

Hazard(s) rated as moderately low: ICE STORM, EARTHQUAKE, HAZMAT (FIXED SITE), ICE JAM, DAM FAILURE, TORNADO, WATER SUPPLY CONTAMINATION, TERRORISM BIOLOGICAL, TERRORISM CHEMICAL, WILDFIRE/DROUGHT, TERRORISM RADIOLOGICAL

ICE STORM: 223, Moderately Low Hazard

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

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

EARTHQUAKE: 203, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Highly Unlikely
Frequency: A Rare 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

HAZMAT (FIXED SITE): 201, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare 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
- Severe Damage to Private Property
- Little or No Structural Damage to Public Facilities

ICE JAM: 196, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: Several Days Warning
Hazard Duration: Two to Three Days
Recovery Time: One to Two Weeks

Impact:

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

DAM FAILURE: 190, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day

Recovery Time: One to Two Weeks

Impact:

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

TORNADO: 188, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: An Infrequent Event

Onset: Several Hours Warning

Hazard Duration: One Day

Recovery Time: One to 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

WATER SUPPLY CONTAMINATION: 178, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

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
- Little or No Structural Damage to Public Facilities

TERRORISM BIOLOGICAL: 170, Moderately Low Hazard

Potential Impact: Single Location

Cascade Effects: Highly Unlikely

Frequency: A Rare 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
- Little or No Damage to Private Property

- Little or No Structural Damage to Public Facilities

TERRORISM CHEMICAL: 170, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare 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
- Little or No Damage to Private Property
- Little or No Structural Damage to Public Facilities

WILDFIRE/DROUGHT: 168, Moderately Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Four days to One Week
Recovery Time: More Than Two Weeks

Impact:

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

TERRORISM RADIOLOGICAL: 164, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
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
- Little or No Damage to Private Property
- Little or No Structural Damage to Public Facilities

Hazard(s) rated as low: HAZMAT (IN TRANSIT), RADIOLOGICAL (FIXED SITE), CIVIL UNREST, EXPLOSION, LANDSLIDE, EPIDEMIC, TRANS ACCIDENT, LANDSUBSIDENCE

HAZMAT (IN TRANSIT): 157, Low Hazard

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

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

RADIOLOGICAL (IN TRANSIT): 148, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Two to Three Days
Recovery Time: One Week to Two Weeks
Impact:

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

RADIOLOGICAL (FIXED SITE): 141, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Four days to One Week
Recovery Time: More Than Two Weeks
Impact:

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

CIVIL UNREST: 140, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: Several Days Warning
Hazard Duration: Four days to One Week
Recovery Time: One to Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EXPLOSION: 140, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: One to Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSLIDE: 140, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: One to Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EPIDEMIC: 136, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely

Frequency: A Rare Event
Onset: One Day 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
 - Little or No Structural Damage to Public Facilities

TRANS ACCIDENT: 134, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

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

LANDSUBSIDENCE: 125, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: Three Days to One Week

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

EARTHQUAKE
HAZMAT (FIXED SITE)
DAM FAILURE
WATER SUPPLY CONTAMINATION
TERRORISM BIOLOGICAL
TERRORISM CHEMICAL
TERRORISM RADIOLOGICAL
HAZMAT (IN TRANSIT)
EXPLOSION

LANDSLIDE
TRANS ACCIDENT
LANDSUBSIDENCE

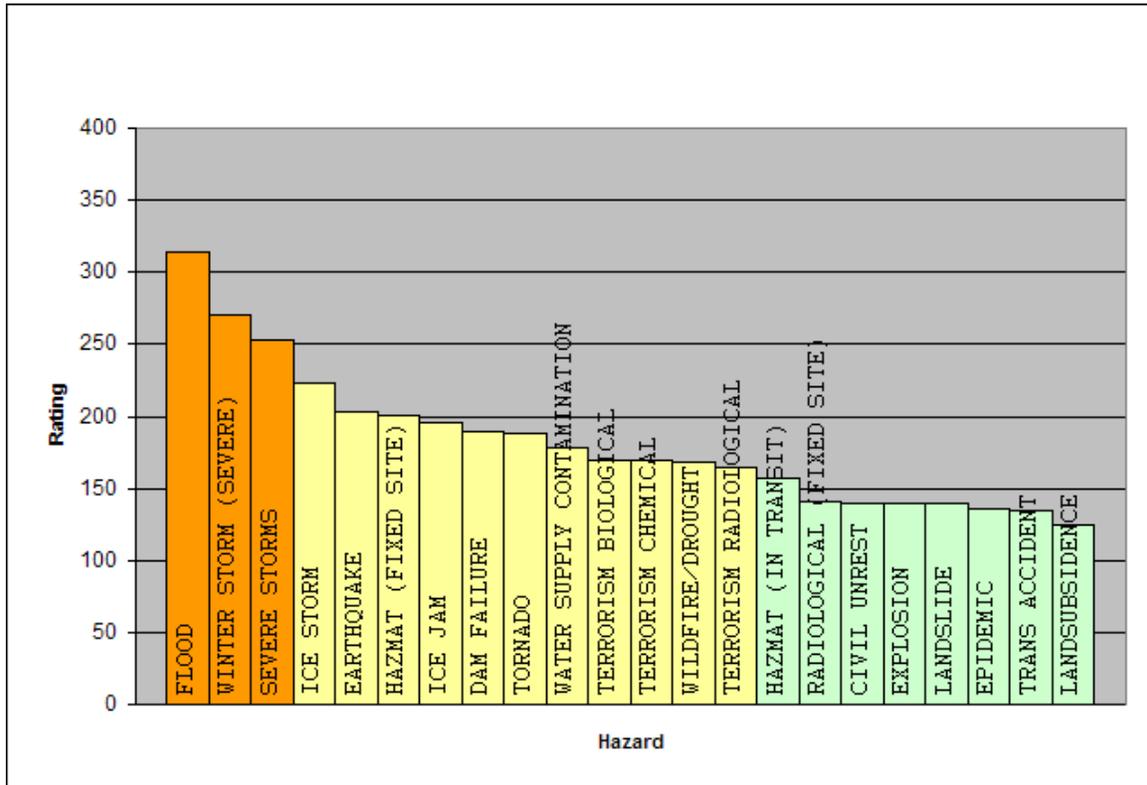
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

FLOOD
WINTER STORM (SEVERE)
SEVERE STORMS

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



HAZNY

Background

On **4/14/11**, the City of Olean conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the City of Olean

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The City of Olean completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the City of Olean. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
WINTER STORM (SEVERE)	294
SEVERE STORMS	270
FLOOD	266
LANDSUBSIDENCE	248
ICE STORM	245
WATER SUPPLY CONTAMINATION	245
TORNADO	222
TERRORISM - CHEMICAL	211
EARTHQUAKE	198
TERRORISM-BIOLOGICAL	193
TRANS ACCIDENT	185
TERRORISM - RADIOLOGICAL	184
HAZMAT (FIXED SITE)	168
ICE JAM	162
WILDFIRE / DROUGHT	151
EXPLOSION	148
RADIOLOGICAL (FIXED SITE)	144
LANDSLIDE	134
EPIDEMIC	130
HAZMAT (IN TRANSIT)	113
RADIOLOGICAL (IN TRANSIT)	113
CIVIL UNREST	107
DAM FAILURE	107

Hazard(s) rated as moderately high: WINTER STORM (SEVERE), SEVERE STORMS, FLOOD, LANDSUBSIDENCE, ICE STORM, WATER SUPPLY CONTAMINATION

WINTER STORM (SEVERE): 294, Moderately High Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Frequent Event

Onset: Several Hours Warning

Hazard Duration: Two to Three Days

Recovery Time: One to Two Days

Impact:

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

SEVERE STORMS: 270, Moderately High Hazard

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

FLOOD: 266, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: An Infrequent Event
Onset: Several Days Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death to Large Numbers
 - Severe Damage to Private Property
 - Severe Structural Damage to Public Facilities

LANDSUBSIDENCE: 248, Moderately High Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Frequent Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE STORM: 245, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential

Frequency: An Infrequent Event
Onset: One Day 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
- Severe Damage to Private Property
- Severe Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 245, Moderately High Hazard

Potential Impact: Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: More Than One Week
Recovery Time: One to Two Weeks

Impact:

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

Hazard(s) rated as moderately low: TORNADO, TERRORISM - CHEMICAL, EARTHQUAKE, TERRORISM-BIOLOGICAL, TRANS ACCIDENT, TERRORISM - RADIOLOGICAL, HAZMAT (FIXED SITE), ICE JAM

TORNADO: 222, Moderately Low Hazard

Potential Impact: Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: Three Days to One Week

Impact:

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

TERRORISM - CHEMICAL: 211, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential

Frequency: A Rare Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks
Impact:

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

EARTHQUAKE: 198, Moderately Low Hazard

Potential Impact: Throughout a Large Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Weeks
Impact:

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

TERRORISM-BIOLOGICAL: 193, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks
Impact:

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

TRANS ACCIDENT: 185, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM - RADIOLOGICAL: 184, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare 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
- Little or No Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 168, Moderately Low Hazard

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

Impact:

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

ICE JAM: 162, Moderately Low Hazard

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

Impact:

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

Hazard(s) rated as low: WILDFIRE / DROUGHT, EXPLOSION, RADIOLOGICAL (FIXED SITE), LANDSLIDE, EPIDEMIC, HAZMAT (IN TRANSIT), RADIOLOGICAL (IN TRANSIT), CIVIL UNREST, DAM FAILURE

WILDFIRE / DROUGHT: 151, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours 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
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

EXPLOSION: 148, Low Hazard

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

Impact:

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

RADIOLOGICAL (FIXED SITE): 144, Low Hazard

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

Impact:

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

LANDSLIDE: 134, Low Hazard

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

Impact:

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

EPIDEMIC: 130, Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: One Day 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
- Little or No Damage to Private Property
- Little or No Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 113, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day

Impact:

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

RADIOLOGICAL (IN TRANSIT): 113, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day

Impact:

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

CIVIL UNREST: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

DAM FAILURE: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

LANDSUBSIDENCE
TERRORISM - CHEMICAL
EARTHQUAKE
TERRORISM-BIOLOGICAL
TRANS ACCIDENT
TERRORISM - RADIOLOGICAL
EXPLOSION
RADIOLOGICAL (FIXED SITE)
LANDSLIDE
HAZMAT (IN TRANSIT)
RADIOLOGICAL (IN TRANSIT)
CIVIL UNREST
DAM FAILURE

* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

WINTER STORM (SEVERE)
LANDSUBSIDENCE

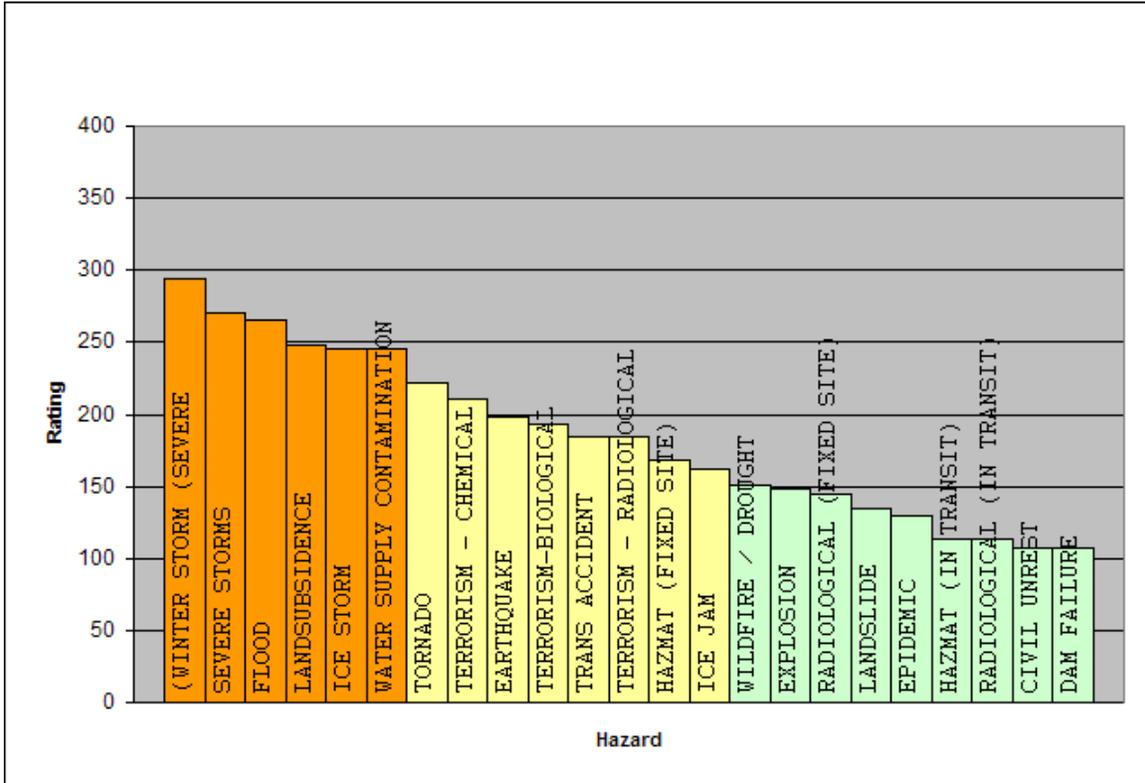
*A frequent event was selected on frequency Tab.

HAZARDS THAT PRESENT THE GREATEST THREAT TO LIFE*

FLOOD
WATER SUPPLY CONTAMINATION
TORNADO
TERRORISM - CHEMICAL
TERRORISM-BIOLOGICAL

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

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - City of Olean

Hazard	Rating	SCOPE			FREQUENCY				IMPACT						ONSET			DURATION																					
		Potential Area Of Impact		Cascade Effect	Frequency				People		Private Property	Public Facilities		Warning			Hazard		Recovery																				
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #s	Injury/Death Large #s	Injury/Death Extreme #s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks		
WINTER STORM (SEVERE)	294																																						
SEVERE STORMS	270																																						
FLOOD	266																																						
LANDSUBSIDENCE	248																																						
ICE STORM	245																																						
WATER SUPPLY CONTAMINATION	245																																						
TORNADO	222																																						
TERRORISM - CHEMICAL	211																																						
EARTHQUAKE	198																																						
TERRORISM-BIOLOGICAL	193																																						
TRANS ACCIDENT	185																																						
TERRORISM - RADIOLOGICAL	184																																						
HAZMAT (FIXED SITE)	168																																						
ICE JAM	162																																						
WILDFIRE / DROUGHT	151																																						
EXPLOSION	148																																						
RADIOLOGICAL (FIXED SITE)	144																																						
LANDSLIDE	134																																						
EPIDEMIC	130																																						
HAZMAT (IN TRANSIT)	113																																						
RADIOLOGICAL (IN TRANSIT)	113																																						
CIVIL UNREST	107																																						
DAM FAILURE	107																																						

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

HAZNY

Background

On **4/14/11**, the City of Salamanca conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the City of Salamanca

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The City of Salamanca completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the City of Salamanca. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

Hazard Analysis Matrix - City of Salamanca

Hazard	Rating	SCOPE						FREQUENCY				IMPACT						ONSET			DURATION																	
		Potential Area Of Impact			Cascade Effect			Frequency				People		Private Property		Public Facilities		Warning			Hazard			Recovery														
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
TERRORISM - RADIOLOGICAL	292																																					
SEVERE STORMS	270																																					
WINTER STORM (SEVERE)	268																																					
LEVIES	256																																					
TERRORISM - CHEMICAL	250																																					
TERRORISM - BIOLOGICAL	242																																					
CIVIL UNREST	238																																					
TORNADO	238																																					
TRANS ACCIDENT	238																																					
FLOOD	225																																					
EARTHQUAKE	221																																					
DAM FAILURE	204																																					
HAZMAT (IN TRANSIT)	202																																					
ICE STORM	202																																					
WILDFIRE / DROUGHT	196																																					
HAZMAT (FIXED SITE)	192																																					
WATER SUPPLY CONTAMINATION	191																																					
LANDSLIDE	190																																					
EPIDEMIC	186																																					
ICE JAM	180																																					
RADIOLOGICAL (IN TRANSIT)	154																																					
EXPLOSION	152																																					
LANDSUBSIDENCE	138																																					
RADIOLOGICAL (FIXED SITE)	44																																					

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

The Group rated the 24 hazards as follows:

Hazard	Rating
TERRORISM - RADIOLOGICAL	292
SEVERE STORMS	270
WINTER STORM (SEVERE)	268
LEVIES	256
TERRORISM - CHEMICAL	250
TERRORISM - BIOLOGICAL	242
CIVIL UNREST	238
TORNADO	238
TRANS ACCIDENT	238
FLOOD	225
EARTHQUAKE	221
DAM FAILURE	204
HAZMAT (IN TRANSIT)	202
ICE STORM	202
WILDFIRE / DROUGHT	196
HAZMAT (FIXED SITE)	192
WATER SUPPLY CONTAMINATION	191
LANDSLIDE	190
EPIDEMIC	186
ICE JAM	180
RADIOLOGICAL (IN TRANSIT)	154
EXPLOSION	152
LANDSUBSIDENCE	138
RADIOLOGICAL (FIXED SITE)	44

Hazard(s) rated as moderately high: TERRORISM - RADIOLOGICAL, SEVERE STORMS, WINTER STORM (SEVERE), LEVIES, TERRORISM - CHEMICAL, TERRORISM - BIOLOGICAL

TERRORISM - RADIOLOGICAL: 292, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
- Cascade Effects:** Highly Likely
- Frequency:** A Rare Event
- Onset:** No Warning
- Hazard Duration:** More Than One Week
- Recovery Time:** More Than Two Weeks
- Impact:**
 - Serious Injury or Death to Extremely Large Numbers
 - Severe Damage to Private Property
 - Severe Structural Damage to Public Facilities

SEVERE STORMS: 270, Moderately High Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Likely

Frequency: A Regular Event

Onset: Several Hours Warning

Hazard Duration: One Day

Recovery Time: Three Days to One Week

Impact:

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

WINTER STORM (SEVERE): 268, Moderately High Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Frequent Event

Onset: Several Hours 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

LEVIES: 256, Moderately High Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Highly Likely

Frequency: An Infrequent Event

Onset: Several Hours Warning

Hazard Duration: More Than One Week

Recovery Time: More Than Two Weeks

Impact:

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

TERRORISM - CHEMICAL: 250, Moderately High Hazard

Potential Impact: Single Location
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks

Impact:

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

TERRORISM - BIOLOGICAL: 242, Moderately High Hazard

Potential Impact: Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks

Impact:

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

Hazard(s) rated as moderately low: CIVIL UNREST, TORNADO, TRANS ACCIDENT, FLOOD, EARTHQUAKE, DAM FAILURE, HAZMAT (IN TRANSIT), ICE STORM, WILDFIRE / DROUGHT, HAZMAT (FIXED SITE), WATER SUPPLY CONTAMINATION, LANDSLIDE, EPIDEMIC, ICE JAM

CIVIL UNREST: 238, Moderately Low Hazard

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

Impact:

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

TORNADO: 238, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Highly Likely

Frequency: An Infrequent 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

TRANS ACCIDENT: 238, Moderately Low Hazard

Potential Impact: Single Location

Cascade Effects: Some Potential

Frequency: A Frequent Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

FLOOD: 225, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: Several Hours Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

EARTHQUAKE: 221, Moderately Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: More Than Two Weeks

Impact:

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

DAM FAILURE: 204, Moderately Low Hazard

Potential Impact: Single Location

Cascade Effects: Highly Likely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: More Than Two Weeks

Impact:

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

HAZMAT (IN TRANSIT): 202, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: Less Than One Day

Impact:

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

ICE STORM: 202, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Highly Likely
Frequency: A Regular Event
Onset: Several Hours Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Moderate Structural Damage to Public Facilities

WILDFIRE / DROUGHT: 196, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: More Than One Week
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Severe Damage to Private Property
 - Moderate Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 192, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 191, Moderately Low Hazard

- 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
 - Little or No Structural Damage to Public Facilities

LANDSLIDE: 190, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Severe Structural Damage to Public Facilities

EPIDEMIC: 186, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Days Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death to Extremely Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

ICE JAM: 180, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Four days to One Week
Recovery Time: Less Than One Day

Impact:

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

Hazard(s) rated as low: RADIOLOGICAL (IN TRANSIT), EXPLOSION, LANDSUBSIDENCE, RADIOLOGICAL (FIXED SITE)

RADIOLOGICAL (IN TRANSIT): 154, Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

EXPLOSION: 152, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days

Impact:

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

LANDSUBSIDENCE: 138, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Moderate Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*
TERRORISM - RADIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - BIOLOGICAL
CIVIL UNREST
TRANS ACCIDENT
EARTHQUAKE
DAM FAILURE
HAZMAT (IN TRANSIT)
HAZMAT (FIXED SITE)
WATER SUPPLY CONTAMINATION
LANDSLIDE
RADIOLOGICAL (IN TRANSIT)
EXPLOSION
LANDSUBSIDENCE

* No warning was selected from the Onset Tab.

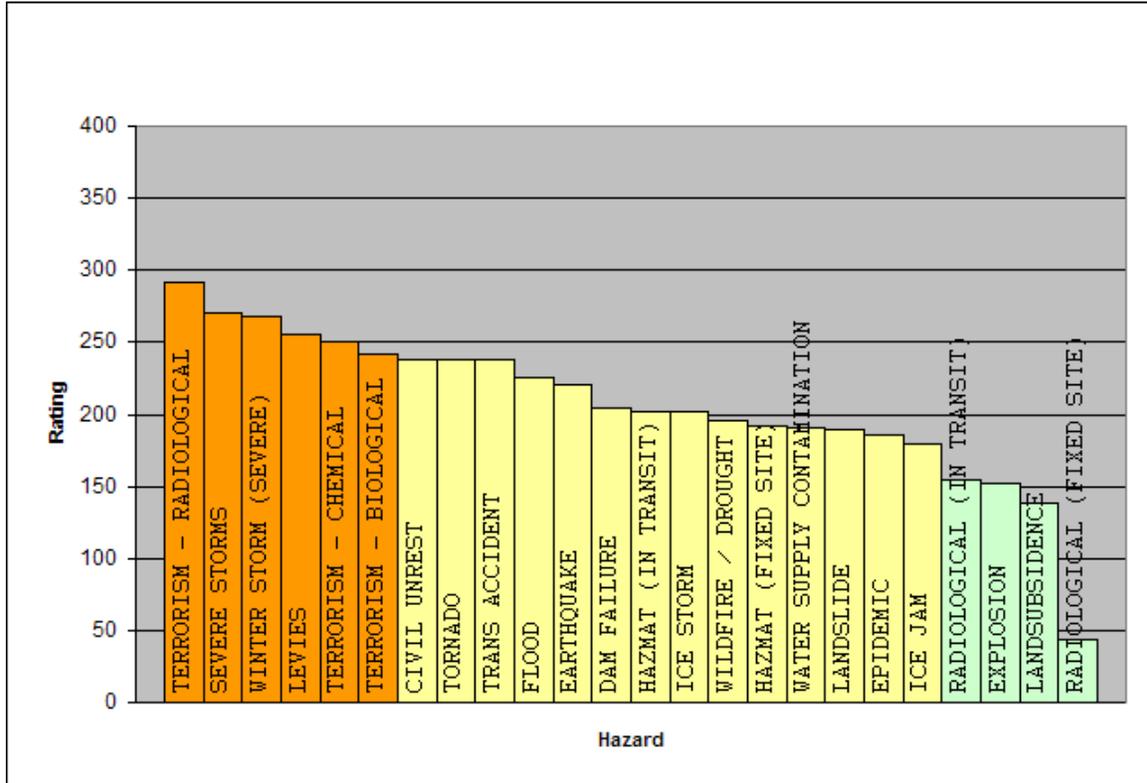
HAZARDS THAT OCCUR MOST OFTEN*
WINTER STORM (SEVERE)
TRANS ACCIDENT

*A frequent event was selected on frequency Tab.

HAZARDS THAT PRESENT THE GREATEST THREAT TO LIFE*
TERRORISM - RADIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - BIOLOGICAL
EPIDEMIC

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

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - City of Salamanca

Hazard	Rating	SCOPE						FREQUENCY				IMPACT						ONSET			DURATION																	
		Potential Area Of Impact			Cascade Effect			Frequency				People		Private Property		Public Facilities		Warning			Hazard			Recovery														
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
TERRORISM - RADIOLOGICAL	292																																					
SEVERE STORMS	270																																					
WINTER STORM (SEVERE)	268																																					
LEVIES	256																																					
TERRORISM - CHEMICAL	250																																					
TERRORISM - BIOLOGICAL	242																																					
CIVIL UNREST	238																																					
TORNADO	238																																					
TRANS ACCIDENT	238																																					
FLOOD	225																																					
EARTHQUAKE	221																																					
DAM FAILURE	204																																					
HAZMAT (IN TRANSIT)	202																																					
ICE STORM	202																																					
WILDFIRE / DROUGHT	196																																					
HAZMAT (FIXED SITE)	192																																					
WATER SUPPLY CONTAMINATION	191																																					
LANDSLIDE	190																																					
EPIDEMIC	186																																					
ICE JAM	180																																					
RADIOLOGICAL (IN TRANSIT)	154																																					
EXPLOSION	152																																					
LANDSUBSIDENCE	138																																					
RADIOLOGICAL (FIXED SITE)	44																																					

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

HAZNY

Background

On 4/14/11, the Town of Allegany conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Town of Allegany

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Allegany completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Allegany. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
FLOOD	256
SEVERE STORMS	248
WINTER STORM (SEVERE)	247
TRANS ACCIDENT	238
WILDFIRE / DROUGHT	238
LANDSUBSIDENCE	237
LANDSLIDE	228
EXPLOSION	222
HAZMAT (IN TRANSIT)	219
TORNADO	207
RADIOLOGICAL (IN TRANSIT)	192
ICE STORM	191
HAZMAT (FIXED SITE)	188
WATER SUPPLY CONTAMINATION	180
ICE JAM	146
EARTHQUAKE	130
EPIDEMIC	116
TERRORISM - BIOLOGICAL	107
TERRORISM - CHEMICAL	107
TERRORISM - RADIOLOGICAL	107
CIVIL UNREST	86
DAM FAILURE	58
RADIOLOGICAL (FIXED SITE)	44

Hazard(s) rated as moderately high: FLOOD, SEVERE STORMS, WINTER STORM (SEVERE)

FLOOD: 256, Moderately High Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Likely

Frequency: A Regular Event

Onset: Several Days Warning

Hazard Duration: Four days to One Week

Recovery Time: Three Days to One Week

Impact:

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

SEVERE STORMS: 248, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Regular Event
Onset: One Day Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Severe Damage to Private Property
 - Moderate Structural Damage to Public Facilities

WINTER STORM (SEVERE): 247, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Frequent Event
Onset: Several Days Warning
Hazard Duration: Two to Three Days
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Hazard(s) rated as moderately low: TRANS ACCIDENT, WILDFIRE / DROUGHT, LANDSUBSIDENCE, LANDSLIDE, EXPLOSION, HAZMAT (IN TRANSIT), TORNADO, RADIOLOGICAL (IN TRANSIT), ICE STORM, HAZMAT (FIXED SITE), WATER SUPPLY CONTAMINATION

TRANS ACCIDENT: 238, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Moderate Structural Damage to Public Facilities

WILDFIRE / DROUGHT: 238, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Severe Damage to Private Property
 - Moderate Structural Damage to Public Facilities

LANDSUBSIDENCE: 237, Moderately Low Hazard

- 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 Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

LANDSLIDE: 228, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
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
 - Severe Damage to Private Property
 - Severe Structural Damage to Public Facilities

EXPLOSION: 222, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Likely
Frequency: A Rare 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

HAZMAT (IN TRANSIT): 219, Moderately Low Hazard

Potential Impact: Throughout a Large Region
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: One to Two Days

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

TORNADO: 207, Moderately Low Hazard

Potential Impact: Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: One Day Warning
Hazard Duration: Two to Three Days
Recovery Time: 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

RADIOLOGICAL (IN TRANSIT): 192, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Likely

Frequency: A Rare Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: One to Two Weeks
Impact:

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

ICE STORM: 191, Moderately Low Hazard

Potential Impact: Throughout a Large Region
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 is Likely, but not in Large Numbers
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 188, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Likely
Frequency: A Rare 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
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 180, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare 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
- Little or No Damage to Private Property
- Little or No Structural Damage to Public Facilities

Hazard(s) rated as low: ICE JAM, EARTHQUAKE, EPIDEMIC, TERRORISM - BIOLOGICAL, TERRORISM - CHEMICAL, TERRORISM - RADIOLOGICAL, CIVIL UNREST, DAM FAILURE, RADIOLOGICAL (FIXED SITE)

ICE JAM: 146, Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Four days to One Week
Recovery Time: One to Two Days

Impact:

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

EARTHQUAKE: 130, Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

EPIDEMIC: 116, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM - BIOLOGICAL: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM - CHEMICAL: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM - RADIOLOGICAL: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

CIVIL UNREST: 86, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

DAM FAILURE: 58, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: Several Days Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

TRANS ACCIDENT
WILDFIRE / DROUGHT
LANDSUBSIDENCE
LANDSLIDE
EXPLOSION
HAZMAT (IN TRANSIT)
RADIOLOGICAL (IN TRANSIT)
HAZMAT (FIXED SITE)
WATER SUPPLY CONTAMINATION
EARTHQUAKE
EPIDEMIC
TERRORISM - BIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - RADIOLOGICAL

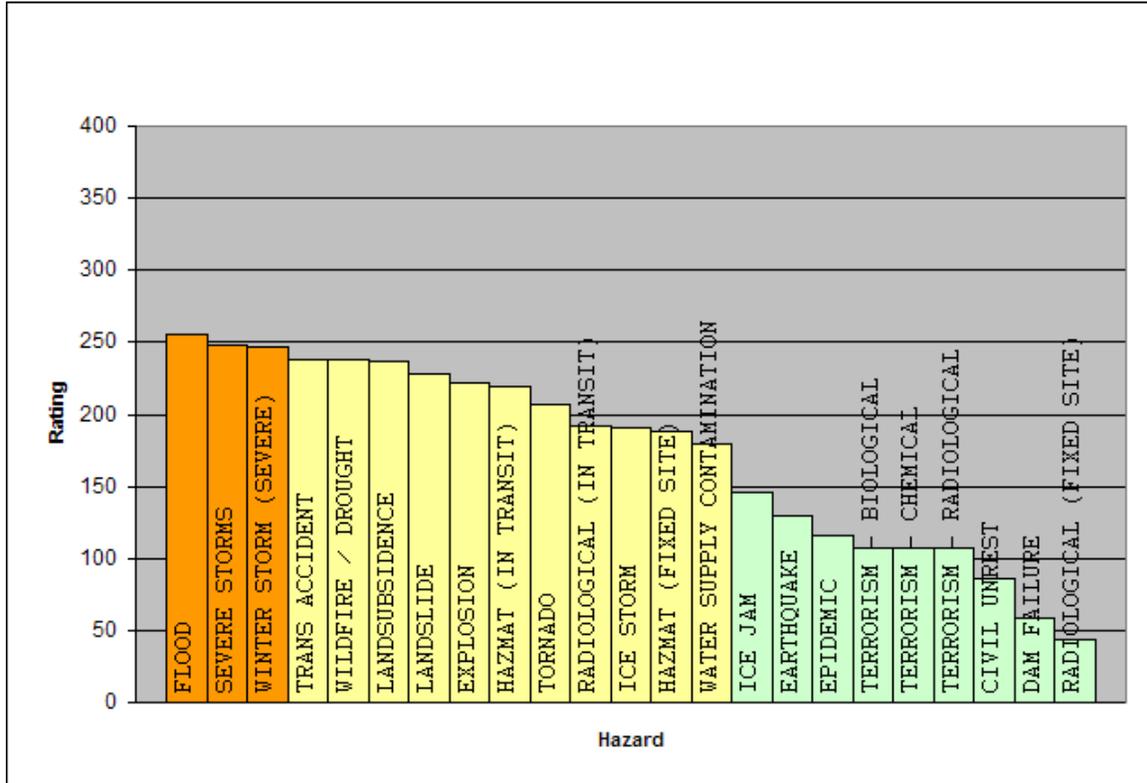
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

WINTER STORM (SEVERE)

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Allegany

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																		
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery															
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
FLOOD	256																																					
SEVERE STORMS	248																																					
WINTER STORM (SEVERE)	247																																					
TRANS ACCIDENT	238																																					
WILDFIRE / DROUGHT	238																																					
LANDSUBSIDENCE	237																																					
LANDSLIDE	228																																					
EXPLOSION	222																																					
HAZMAT (IN TRANSIT)	219																																					
TORNADO	207																																					
RADIOLOGICAL (IN TRANSIT)	192																																					
ICE STORM	191																																					
HAZMAT (FIXED SITE)	188																																					
WATER SUPPLY CONTAMINATION	180																																					
ICE JAM	146																																					
EARTHQUAKE	130																																					
EPIDEMIC	116																																					
TERRORISM - BIOLOGICAL	107																																					
TERRORISM - CHEMICAL	107																																					
TERRORISM - RADIOLOGICAL	107																																					
CIVIL UNREST	86																																					
DAM FAILURE	58																																					
RADIOLOGICAL (FIXED SITE)	44																																					

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

HAZNY

Background

On **4/14/11**, the Town of Ashford conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and the Town of Ashford**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Ashford completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendent analyzed hazards potentially affecting the Town of Ashford. *HAZNY* rated each hazard based on the Highway Superintendent's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
FLOOD	328
WINTER STORM (SEVERE)	253
ICE STORM	246
SEVERE STORMS	222
TORNADO	222
EARTHQUAKE	201
HAZMAT (FIXED SITE)	176
HAZMAT (IN TRANSIT)	154
WILDFIRE / DROUGHT	153
LANDSLIDE	147
TERRORISM - RADIOLOGICAL	146
RADIOLOGICAL (FIXED SITE)	141
RADIOLOGICAL (IN TRANSIT)	140
EPIDEMIC	128
TRANS ACCIDENT	122
LANDSUBSIDENCE	119
TERRORISM - CHEMICAL	119
WATER SUPPLY CONTAMINATION	119
CIVIL UNREST	116
EXPLOSION	114
TERRORISM - BIOLOGICAL	113
ICE JAM	106
DAM FAILURE	92

Hazard(s) rated as high: FLOOD

FLOOD: 328, High Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Regular 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
- Severe Damage to Private Property
- Severe Structural Damage to Public Facilities

Hazard(s) rated as moderately high: WINTER STORM (SEVERE), ICE STORM

WINTER STORM (SEVERE): 253, Moderately High Hazard

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

ICE STORM: 246, Moderately High Hazard

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

Hazard(s) rated as moderately low: SEVERE STORMS, TORNADO, EARTHQUAKE, HAZMAT (FIXED SITE)

SEVERE STORMS: 222, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Highly Likely
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
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

TORNADO: 222, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Likely
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: 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

EARTHQUAKE: 201, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare 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
 - Severe Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 176, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare 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
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Hazard(s) rated as low: HAZMAT (IN TRANSIT), WILDFIRE / DROUGHT, LANDSLIDE, TERRORISM - RADIOLOGICAL, RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT), EPIDEMIC, TRANS ACCIDENT,

**LANDSUBSIDENCE, TERRORISM - CHEMICAL, WATER SUPPLY
CONTAMINATION, CIVIL UNREST, EXPLOSION, TERRORISM -
BIOLOGICAL, ICE JAM, DAM FAILURE**

HAZMAT (IN TRANSIT): 154, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Less Than One Day
Impact:

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

WILDFIRE / DROUGHT: 153, Low Hazard

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

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

LANDSLIDE: 147, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: More Than Two Weeks
Impact:

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

TERRORISM - RADIOLOGICAL: 146, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Weeks

Impact:

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

RADIOLOGICAL (FIXED SITE): 141, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: More Than Two Weeks

Impact:

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

RADIOLOGICAL (IN TRANSIT): 140, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: More Than Two Weeks

Impact:

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

EPIDEMIC: 128, Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Highly Unlikely

Frequency: A Rare Event
Onset: One Day Warning
Hazard Duration: Four days to One Week
Recovery Time: One to Two Weeks
Impact:

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

TRANS ACCIDENT: 122, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:

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

LANDSUBSIDENCE: 119, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:

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

TERRORISM - CHEMICAL: 119, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

WATER SUPPLY CONTAMINATION: 119, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Three Days to One Week

Impact:

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

CIVIL UNREST: 116, Low Hazard

Potential Impact: Throughout a Large Region
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

EXPLOSION: 114, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM - BIOLOGICAL: 113, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

ICE JAM: 106, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

DAM FAILURE: 92, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

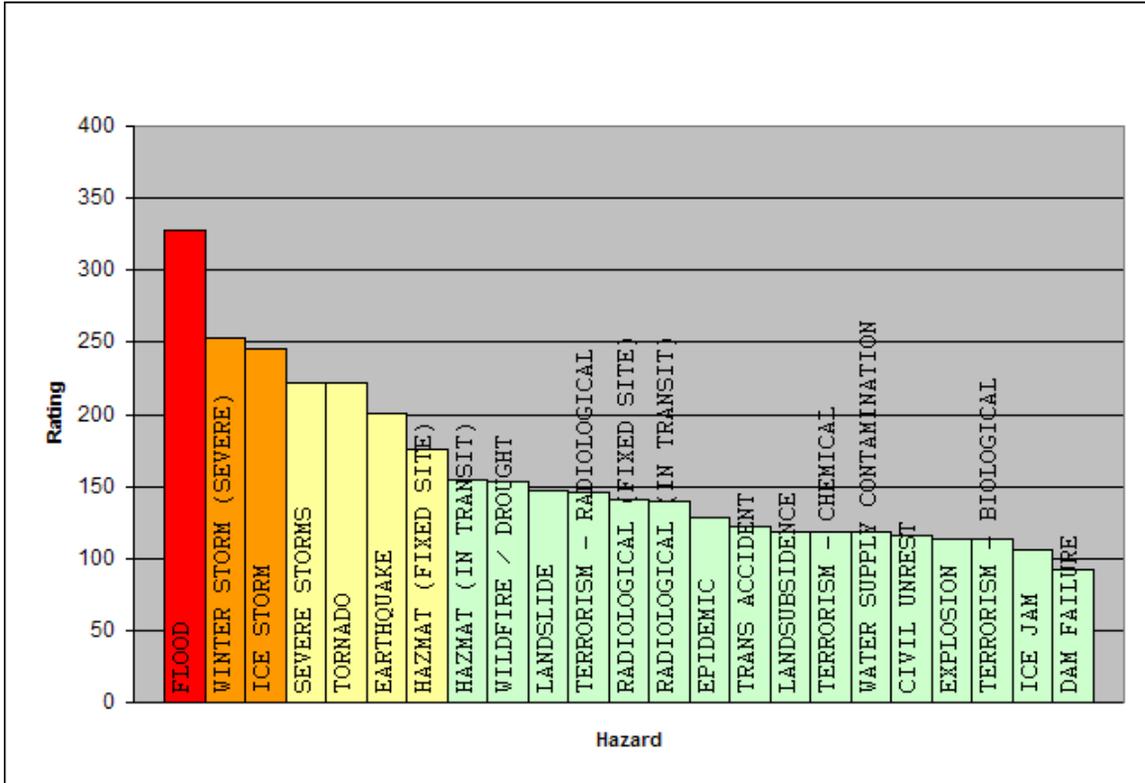
Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

FLOOD
EARTHQUAKE
HAZMAT (FIXED SITE)
HAZMAT (IN TRANSIT)
LANDSLIDE
TERRORISM - RADIOLOGICAL
RADIOLOGICAL (FIXED SITE)
RADIOLOGICAL (IN TRANSIT)
TRANS ACCIDENT
LANDSUBSIDENCE
TERRORISM - CHEMICAL
WATER SUPPLY CONTAMINATION
EXPLOSION
TERRORISM - BIOLOGICAL

* No warning was selected from the Onset Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Ashford

Hazard	Rating	SCOPE						FREQUENCY				IMPACT						ONSET			DURATION																	
		Potential Area Of Impact			Cascade Effect			Frequency				People		Private Property		Public Facilities		Warning			Hazard			Recovery														
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
FLOOD	328																																					
WINTER STORM (SEVERE)	253																																					
ICE STORM	246																																					
SEVERE STORMS	222																																					
TORNADO	222																																					
EARTHQUAKE	201																																					
HAZMAT (FIXED SITE)	176																																					
HAZMAT (IN TRANSIT)	154																																					
WILDFIRE / DROUGHT	153																																					
LANDSLIDE	147																																					
TERRORISM - RADIOLOGICAL	146																																					
RADIOLOGICAL (FIXED SITE)	141																																					
RADIOLOGICAL (IN TRANSIT)	140																																					
EPIDEMIC	128																																					
TRANS ACCIDENT	122																																					
LANDSUBSIDENCE	119																																					
TERRORISM - CHEMICAL	119																																					
WATER SUPPLY CONTAMINATION	119																																					
CIVIL UNREST	116																																					
EXPLOSION	114																																					
TERRORISM - BIOLOGICAL	113																																					
ICE JAM	106																																					
DAM FAILURE	92																																					

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

HAZNY

Background

On **4/14/11**, the Town of Conewango conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and the Town of Conewango**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Conewango completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Conewango. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
EPIDEMIC	296
SEVERE STORMS	295
FLOOD	276
HAZMAT (IN TRANSIT)	274
TORNADO	269
ICE STORM	257
WINTER STORM (SEVERE)	248
TRANS ACCIDENT	242
DAM FAILURE	238
EXPLOSION	238
WILDFIRE/DROUGHT	193
CIVIL UNREST	188
EARTHQUAKE	159
HAZMAT (FIXED SITE)	107
ICE JAM	107
LANDSLIDE	107
LANDSUBSIDENCE	107
RADIOLOGICAL (FIXED SITE)	107
RADIOLOGICAL (IN TRANSIT)	107
TERRORISM BIOLOGICAL	107
TERRORISM CHEMICAL	107
TERRORISM RADIOLOGICAL	107
WATER SUPPLY CONTAMINATION	107

Hazard(s) rated as moderately high: EPIDEMIC, SEVERE STORMS, FLOOD, HAZMAT (IN TRANSIT), TORNADO, ICE STORM, WINTER STORM (SEVERE), TRANS ACCIDENT

EPIDEMIC: 296, Moderately High Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Highly Likely

Frequency: A Regular 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
- Severe Damage to Private Property
- Little or No Structural Damage to Public Facilities

SEVERE STORMS: 295, Moderately High Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Highly Likely
Frequency: A Frequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

FLOOD: 276, Moderately High Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Frequent Event
Onset: One Day Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Severe Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 274, Moderately High Hazard

- 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
 - Severe Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TORNADO: 269, Moderately High Hazard

- Potential Impact:** Throughout a Small 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

ICE STORM: 257, Moderately High Hazard

Potential Impact: Throughout a Small Region
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 Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WINTER STORM (SEVERE): 248, Moderately High Hazard

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

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TRANS ACCIDENT: 242, Moderately High Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Frequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: More Than Two Weeks

Impact:

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

Hazard(s) rated as moderately low: DAM FAILURE, EXPLOSION, WILDFIRE/DROUGHT, CIVIL UNREST

DAM FAILURE: 238, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Highly Likely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: One to Two Weeks

Impact:

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

EXPLOSION: 238, Moderately Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Likely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: More Than One Week

Recovery Time: More Than Two Weeks

Impact:

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

WILDFIRE/DROUGHT: 193, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: An Infrequent Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: More Than Two Weeks

Impact:

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

CIVIL UNREST: 188, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Unlikely
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
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

Hazard(s) rated as low: EARTHQUAKE, HAZMAT (FIXED SITE), ICE JAM, LANDSLIDE, LANDSUBSIDENCE, RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT), TERRORISM BIOLOGICAL, TERRORISM CHEMICAL, TERRORISM RADIOLOGICAL, WATER SUPPLY CONTAMINATION

EARTHQUAKE: 159, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No 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
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

ICE JAM: 107, Low Hazard

Potential Impact: Single Location

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

LANDSLIDE: 107, Low Hazard

Potential Impact: Single Location

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

LANDSUBSIDENCE: 107, Low Hazard

Potential Impact: Single Location

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

- Serious Injury or Death Unlikely
- Little or No Damage to Private Property

- Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

RADIOLOGICAL (IN TRANSIT): 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM BIOLOGICAL: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM CHEMICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM RADIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*
EPIDEMIC
SEVERE STORMS
HAZMAT (IN TRANSIT)
TORNADO
TRANS ACCIDENT
DAM FAILURE
EXPLOSION
WILDFIRE/DROUGHT
CIVIL UNREST
EARTHQUAKE
HAZMAT (FIXED SITE)
ICE JAM
LANDSLIDE
LANDSUBSIDENCE
RADIOLOGICAL (FIXED SITE)
RADIOLOGICAL (IN TRANSIT)
TERRORISM BIOLOGICAL
TERRORISM CHEMICAL
TERRORISM RADIOLOGICAL
WATER SUPPLY CONTAMINATION

* No warning was selected from the Onset Tab.

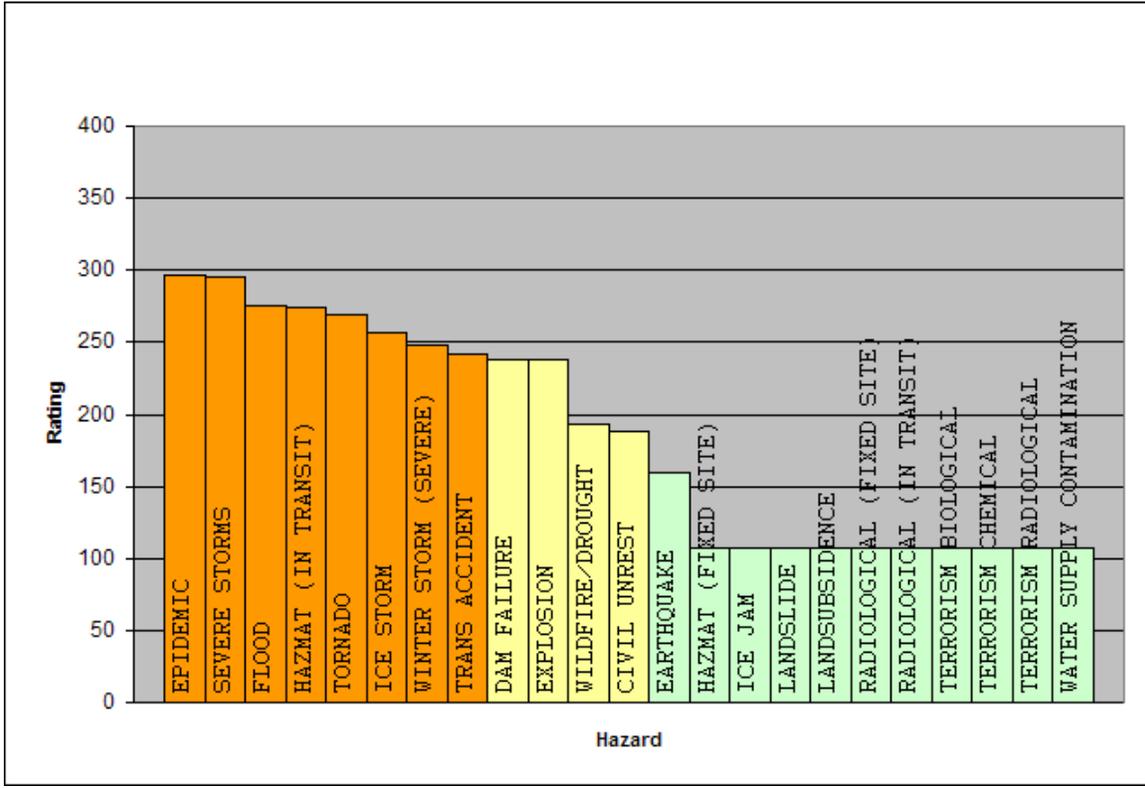
HAZARDS THAT OCCUR MOST OFTEN*
SEVERE STORMS
FLOOD
ICE STORM
WINTER STORM (SEVERE)
TRANS ACCIDENT

*A frequent event was selected on frequency Tab.

HAZARDS THAT PRESENT THE GREATEST THREAT TO LIFE*
DAM FAILURE

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

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Conewango

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																			
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery																
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks		
EPIDEMIC	296																																						
SEVERE STORMS	295																																						
FLOOD	276																																						
HAZMAT (IN TRANSIT)	274																																						
TORNADO	269																																						
ICE STORM	257																																						
WINTER STORM (SEVERE)	248																																						
TRANS ACCIDENT	242																																						
DAM FAILURE	238																																						
EXPLOSION	238																																						
WILDFIRE/DROUGHT	193																																						
CIVIL UNREST	188																																						
EARTHQUAKE	159																																						
HAZMAT (FIXED SITE)	107																																						
ICE JAM	107																																						
LANDSLIDE	107																																						
LANDSUBSIDENCE	107																																						
RADIOLOGICAL (FIXED SITE)	107																																						
RADIOLOGICAL (IN TRANSIT)	107																																						
TERRORISM BIOLOGICAL	107																																						
TERRORISM CHEMICAL	107																																						
TERRORISM RADIOLOGICAL	107																																						
WATER SUPPLY CONTAMINATION	107																																						

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

HAZNY

Background

On 4/14/11, the Town of Dayton conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Town of Dayton

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Dayton completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Dayton. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
TRANS ACCIDENT	296
WINTER STORM (SEVERE)	240
FLOOD	239
ICE STORM	226
SEVERE STORMS	218
ICE JAM	174
TORNADO	171
HAZMAT (IN TRANSIT)	168
RADIOLOGICAL (IN TRANSIT)	156
DAM FAILURE	152
EXPLOSION	138
TERRORISM - BIOLOGICAL	137
TERRORISM - CHEMICAL	137
TERRORISM - RADIOLOGICAL	137
WILDFIRE / DROUGHT	137
LANDSLIDE	126
WATER SUPPLY CONTAMINATION	124
RADIOLOGICAL (FIXED SITE)	122
LANDSUBSIDENCE	113
CIVIL UNREST	107
EARTHQUAKE	107
EPIDEMIC	107
HAZMAT (FIXED SITE)	107

Hazard(s) rated as moderately high: TRANS ACCIDENT

TRANS ACCIDENT: 296, Moderately High Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Likely

Frequency: A Frequent Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

Hazard(s) rated as moderately low: WINTER STORM (SEVERE), FLOOD, ICE STORM, SEVERE STORMS, ICE JAM, TORNADO, HAZMAT (IN TRANSIT)

WINTER STORM (SEVERE): 240, Moderately Low Hazard

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

FLOOD: 239, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE STORM: 226, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Frequent Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

SEVERE STORMS: 218, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE JAM: 174, Moderately Low Hazard

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

TORNADO: 171, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 168, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

Hazard(s) rated as low: RADIOLOGICAL (IN TRANSIT), DAM FAILURE, EXPLOSION, TERRORISM - BIOLOGICAL, TERRORISM - CHEMICAL, TERRORISM - RADIOLOGICAL, WILDFIRE / DROUGHT, LANDSLIDE, WATER SUPPLY CONTAMINATION, RADIOLOGICAL (FIXED SITE), LANDSUBSIDENCE, CIVIL UNREST, EARTHQUAKE, EPIDEMIC, HAZMAT (FIXED SITE)

RADIOLOGICAL (IN TRANSIT): 156, Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

DAM FAILURE: 152, Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Three Days to One Week

Impact:

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

EXPLOSION: 138, Low Hazard

Potential Impact: Several Locations

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

TERRORISM - BIOLOGICAL: 137, Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

TERRORISM - CHEMICAL: 137, Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

TERRORISM - RADIOLOGICAL: 137, Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WILDFIRE / DROUGHT: 137, Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSLIDE: 126, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 124, Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 122, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSUBSIDENCE: 113, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

CIVIL UNREST: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

EARTHQUAKE: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

EPIDEMIC: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

HAZMAT (FIXED SITE): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

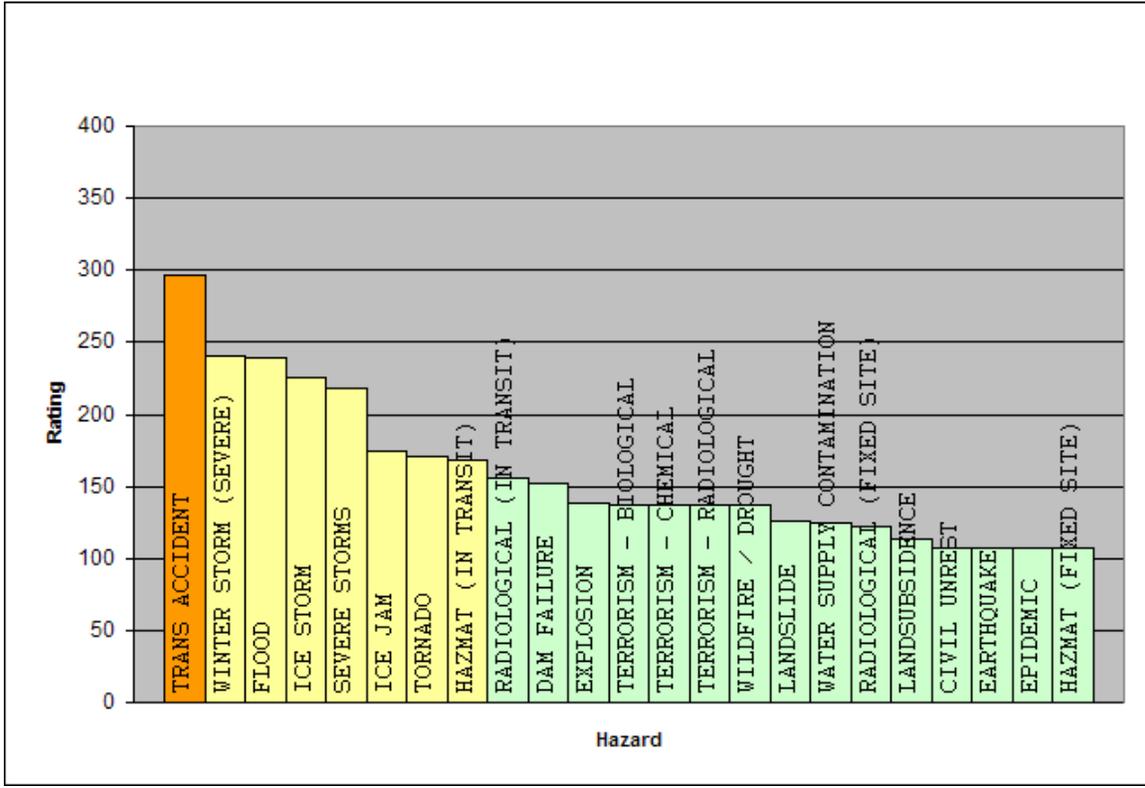
HAZARDS THAT OCCUR WITH NO WARNING*
TRANS ACCIDENT
FLOOD
SEVERE STORMS
TORNADO
HAZMAT (IN TRANSIT)
RADIOLOGICAL (IN TRANSIT)
DAM FAILURE
EXPLOSION
TERRORISM - BIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - RADIOLOGICAL
WILDFIRE / DROUGHT
LANDSLIDE
WATER SUPPLY CONTAMINATION
RADIOLOGICAL (FIXED SITE)
LANDSUBSIDENCE
CIVIL UNREST
EARTHQUAKE
EPIDEMIC
HAZMAT (FIXED SITE)

* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*
TRANS ACCIDENT
ICE STORM

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Dayton

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																		
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery															
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
TRANS ACCIDENT	296																																					
WINTER STORM (SEVERE)	240																																					
FLOOD	239																																					
ICE STORM	226																																					
SEVERE STORMS	218																																					
ICE JAM	174																																					
TORNADO	171																																					
HAZMAT (IN TRANSIT)	168																																					
RADIOLOGICAL (IN TRANSIT)	156																																					
DAM FAILURE	152																																					
EXPLOSION	138																																					
TERRORISM - BIOLOGICAL	137																																					
TERRORISM - CHEMICAL	137																																					
TERRORISM - RADIOLOGICAL	137																																					
WILDFIRE / DROUGHT	137																																					
LANDSLIDE	126																																					
WATER SUPPLY CONTAMINATION	124																																					
RADIOLOGICAL (FIXED SITE)	122																																					
LANDSUBSIDENCE	113																																					
CIVIL UNREST	107																																					
EARTHQUAKE	107																																					
EPIDEMIC	107																																					
HAZMAT (FIXED SITE)	107																																					

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

HAZNY

Background

On 4/14/11, the Town of East Otto conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Town of East Otto

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of East Otto completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of East Otto. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
HAZMAT (IN TRANSIT)	241
LANDSLIDE	240
FLOOD	216
RADIOLOGICAL (IN TRANSIT)	205
ICE JAM	194
SEVERE STORMS	188
TERRORISM - BIOLOGICAL	188
WILDFIRE / DROUGHT	188
TORNADO	182
WINTER STORM (SEVERE)	179
TERRORISM - CHEMICAL	178
ICE STORM	173
TRANS ACCIDENT	172
EARTHQUAKE	169
TERRORISM - RADIOLOGICAL	168
DAM FAILURE	158
EXPLOSION	158
EPIDEMIC	153
LANDSUBSIDENCE	138
CIVIL UNREST	132
RADIOLOGICAL (FIXED SITE)	132
WATER SUPPLY CONTAMINATION	132
HAZMAT (FIXED SITE)	97

Hazard(s) rated as moderately low: HAZMAT (IN TRANSIT), LANDSLIDE, FLOOD, RADIOLOGICAL (IN TRANSIT), ICE JAM, SEVERE STORMS, TERRORISM - BIOLOGICAL, WILDFIRE / DROUGHT, TORNADO, WINTER STORM (SEVERE), TERRORISM - CHEMICAL, ICE STORM, TRANS ACCIDENT, EARTHQUAKE, TERRORISM - RADIOLOGICAL

HAZMAT (IN TRANSIT): 241, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
- Cascade Effects:** Some Potential
- Frequency:** A Regular Event
- Onset:** No Warning
- Hazard Duration:** Less Than One Day
- Recovery Time:** Less Than One Day
- Impact:**
 - Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

LANDSLIDE: 240, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

FLOOD: 216, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: One Day Warning
Hazard Duration: One Day
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 205, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE JAM: 194, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: One Day Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week

Impact:

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

SEVERE STORMS: 188, Moderately Low Hazard

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

Impact:

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

TERRORISM - BIOLOGICAL: 188, Moderately Low Hazard

Potential Impact: Throughout a Large Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

WILDFIRE / DROUGHT: 188, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TORNADO: 182, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

WINTER STORM (SEVERE): 179, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: Several Days Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - CHEMICAL: 178, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE STORM: 173, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: Several Days Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TRANS ACCIDENT: 172, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EARTHQUAKE: 169, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential

Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM - RADIOLOGICAL: 168, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

Hazard(s) rated as low: DAM FAILURE, EXPLOSION, EPIDEMIC, LANDSUBSIDENCE, CIVIL UNREST, RADIOLOGICAL (FIXED SITE), WATER SUPPLY CONTAMINATION, HAZMAT (FIXED SITE)

DAM FAILURE: 158, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: More Than Two Weeks

Impact:

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

EXPLOSION: 158, Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EPIDEMIC: 153, Low Hazard

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

LANDSUBSIDENCE: 138, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Moderate Structural Damage to Public Facilities

CIVIL UNREST: 132, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Moderate Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 132, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 132, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 97, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

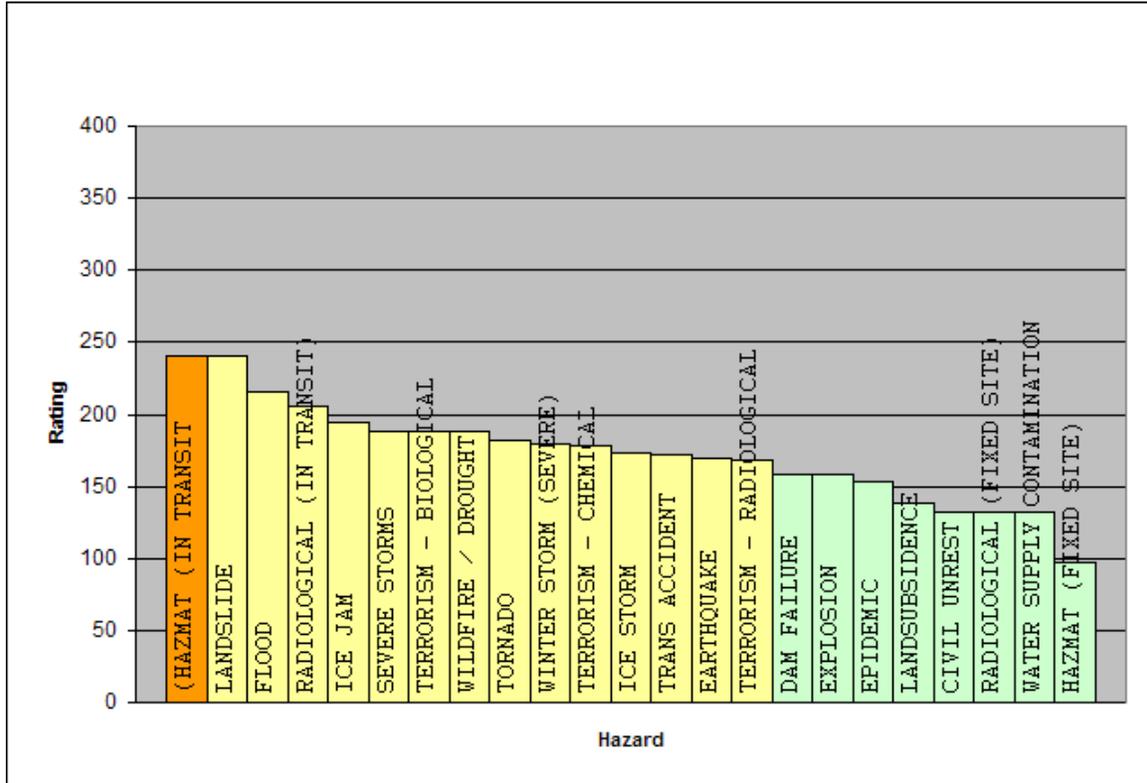
Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

HAZMAT (IN TRANSIT)
LANDSLIDE
RADIOLOGICAL (IN TRANSIT)
TERRORISM - BIOLOGICAL
WILDFIRE / DROUGHT
TORNADO
TERRORISM - CHEMICAL
TRANS ACCIDENT
EARTHQUAKE
TERRORISM - RADIOLOGICAL
DAM FAILURE
EXPLOSION
LANDSUBSIDENCE
CIVIL UNREST
RADIOLOGICAL (FIXED SITE)
WATER SUPPLY CONTAMINATION

* No warning was selected from the Onset Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of East Otto

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																			
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery																
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks		
HAZMAT (IN TRANSIT)	241																																						
LANDSLIDE	240																																						
FLOOD	216																																						
RADIOLOGICAL (IN TRANSIT)	205																																						
ICE JAM	194																																						
SEVERE STORMS	188																																						
TERRORISM - BIOLOGICAL	188																																						
WILDFIRE / DROUGHT	188																																						
TORNADO	182																																						
WINTER STORM (SEVERE)	179																																						
TERRORISM - CHEMICAL	178																																						
ICE STORM	173																																						
TRANS ACCIDENT	172																																						
EARTHQUAKE	169																																						
TERRORISM - RADIOLOGICAL	168																																						
DAM FAILURE	158																																						
EXPLOSION	158																																						
EPIDEMIC	153																																						
LANDSUBSIDENCE	138																																						
CIVIL UNREST	132																																						
RADIOLOGICAL (FIXED SITE)	132																																						
WATER SUPPLY CONTAMINATION	132																																						
HAZMAT (FIXED SITE)	97																																						

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

HAZNY

Background

On 4/14/11, the Town of East Otto conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Town of East Otto

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of East Otto completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of East Otto. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
HAZMAT (IN TRANSIT)	241
LANDSLIDE	240
FLOOD	216
RADIOLOGICAL (IN TRANSIT)	205
ICE JAM	194
SEVERE STORMS	188
TERRORISM - BIOLOGICAL	188
WILDFIRE / DROUGHT	188
TORNADO	182
WINTER STORM (SEVERE)	179
TERRORISM - CHEMICAL	178
ICE STORM	173
TRANS ACCIDENT	172
EARTHQUAKE	169
TERRORISM - RADIOLOGICAL	168
DAM FAILURE	158
EXPLOSION	158
EPIDEMIC	153
LANDSUBSIDENCE	138
CIVIL UNREST	132
RADIOLOGICAL (FIXED SITE)	132
WATER SUPPLY CONTAMINATION	132
HAZMAT (FIXED SITE)	97

Hazard(s) rated as moderately low: HAZMAT (IN TRANSIT), LANDSLIDE, FLOOD, RADIOLOGICAL (IN TRANSIT), ICE JAM, SEVERE STORMS, TERRORISM - BIOLOGICAL, WILDFIRE / DROUGHT, TORNADO, WINTER STORM (SEVERE), TERRORISM - CHEMICAL, ICE STORM, TRANS ACCIDENT, EARTHQUAKE, TERRORISM - RADIOLOGICAL

HAZMAT (IN TRANSIT): 241, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
- Cascade Effects:** Some Potential
- Frequency:** A Regular Event
- Onset:** No Warning
- Hazard Duration:** Less Than One Day
- Recovery Time:** Less Than One Day
- Impact:**
 - Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

LANDSLIDE: 240, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

FLOOD: 216, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: One Day Warning
Hazard Duration: One Day
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 205, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE JAM: 194, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: One Day Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week

Impact:

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

SEVERE STORMS: 188, Moderately Low Hazard

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

Impact:

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

TERRORISM - BIOLOGICAL: 188, Moderately Low Hazard

Potential Impact: Throughout a Large Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

WILDFIRE / DROUGHT: 188, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TORNADO: 182, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

WINTER STORM (SEVERE): 179, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: Several Days Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - CHEMICAL: 178, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE STORM: 173, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: Several Days Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TRANS ACCIDENT: 172, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EARTHQUAKE: 169, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential

Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM - RADIOLOGICAL: 168, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

Hazard(s) rated as low: DAM FAILURE, EXPLOSION, EPIDEMIC, LANDSUBSIDENCE, CIVIL UNREST, RADIOLOGICAL (FIXED SITE), WATER SUPPLY CONTAMINATION, HAZMAT (FIXED SITE)

DAM FAILURE: 158, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: More Than Two Weeks

Impact:

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

EXPLOSION: 158, Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: One to Two Days

Impact:

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

EPIDEMIC: 153, Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: An Infrequent Event

Onset: One Day Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

LANDSUBSIDENCE: 138, Low Hazard

Potential Impact: Several Locations

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

CIVIL UNREST: 132, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Moderate Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 132, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 132, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 97, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

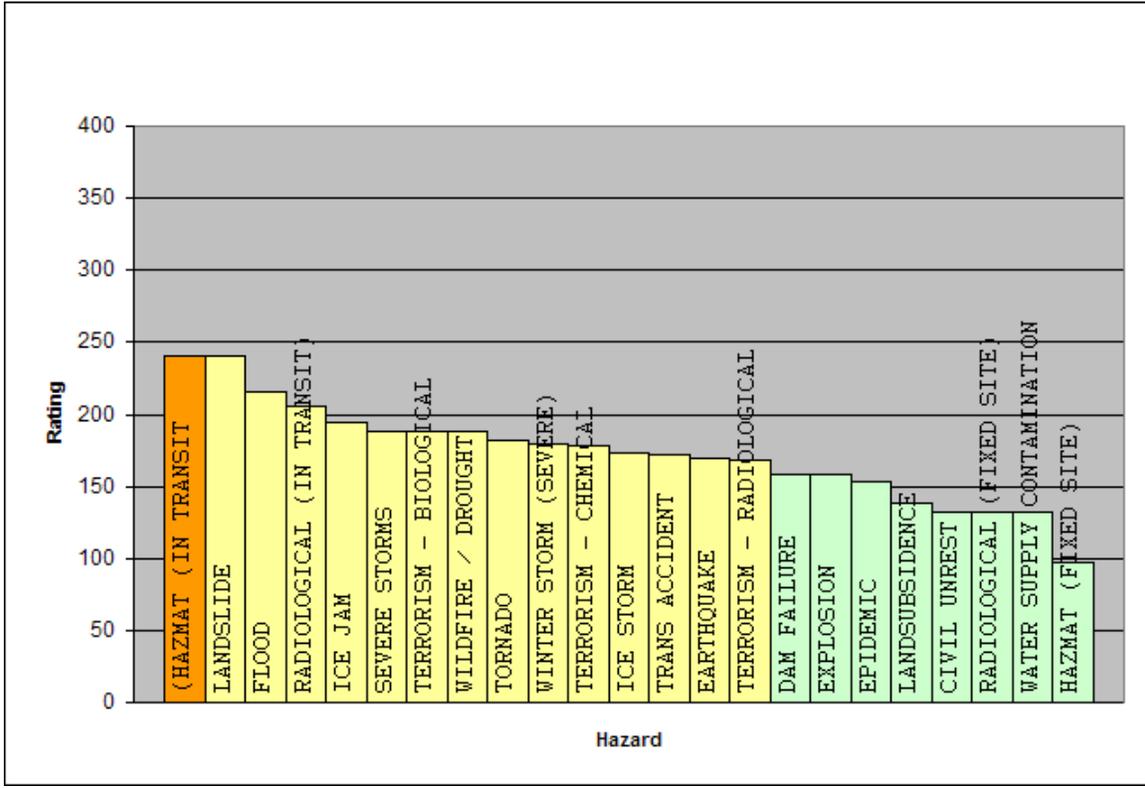
Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

HAZMAT (IN TRANSIT)
LANDSLIDE
RADIOLOGICAL (IN TRANSIT)
TERRORISM - BIOLOGICAL
WILDFIRE / DROUGHT
TORNADO
TERRORISM - CHEMICAL
TRANS ACCIDENT
EARTHQUAKE
TERRORISM - RADIOLOGICAL
DAM FAILURE
EXPLOSION
LANDSUBSIDENCE
CIVIL UNREST
RADIOLOGICAL (FIXED SITE)
WATER SUPPLY CONTAMINATION

* No warning was selected from the Onset Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of East Otto

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																			
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery																
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks		
HAZMAT (IN TRANSIT)	241																																						
LANDSLIDE	240																																						
FLOOD	216																																						
RADIOLOGICAL (IN TRANSIT)	205																																						
ICE JAM	194																																						
SEVERE STORMS	188																																						
TERRORISM - BIOLOGICAL	188																																						
WILDFIRE / DROUGHT	188																																						
TORNADO	182																																						
WINTER STORM (SEVERE)	179																																						
TERRORISM - CHEMICAL	178																																						
ICE STORM	173																																						
TRANS ACCIDENT	172																																						
EARTHQUAKE	169																																						
TERRORISM - RADIOLOGICAL	168																																						
DAM FAILURE	158																																						
EXPLOSION	158																																						
EPIDEMIC	153																																						
LANDSUBSIDENCE	138																																						
CIVIL UNREST	132																																						
RADIOLOGICAL (FIXED SITE)	132																																						
WATER SUPPLY CONTAMINATION	132																																						
HAZMAT (FIXED SITE)	97																																						

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

HAZNY

Background

On **4/14/11**, the Town of Ellicottville conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and the Town of Ellicottville**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Ellicottville completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Ellicottville. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
WILDFIRE / DROUGHT	269
TRANS ACCIDENT	264
WINTER STORM (SEVERE)	234
WATER SUPPLY CONTAMINATION	227
FLOOD	218
ICE JAM	204
TORNADO	204
RADIOLOGICAL (IN TRANSIT)	203
TERRORISM - RADIOLOGICAL	203
HAZMAT (IN TRANSIT)	197
TERRORISM - CHEMICAL	196
ICE STORM	180
EPIDEMIC	168
RADIOLOGICAL (FIXED SITE)	161
SEVERE STORMS	161
TERRORISM - BIOLOGICAL	144
EXPLOSION	139
HAZMAT (FIXED SITE)	136
CIVIL UNREST	130
DAM FAILURE	122
EARTHQUAKE	117
LANDSLIDE	114
LANDSUBSIDENCE	93

Hazard(s) rated as moderately high: WILDFIRE / DROUGHT, TRANS ACCIDENT

WILDFIRE / DROUGHT: 269, Moderately High Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Frequent Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

TRANS ACCIDENT: 264, Moderately High Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Frequent Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

Hazard(s) rated as moderately low: WINTER STORM (SEVERE), WATER SUPPLY CONTAMINATION, FLOOD, ICE JAM, TORNADO, RADIOLOGICAL (IN TRANSIT), TERROORISM - RADIOLOGICAL, HAZMAT (IN TRANSIT), TERRORISM - CHEMICAL, ICE STORM, EPIDEMIC

WINTER STORM (SEVERE): 234, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Highly Likely

Frequency: A Regular Event

Onset: Several Hours Warning

Hazard Duration: Two to Three Days

Recovery Time: One to Two Days

Impact:

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

WATER SUPPLY CONTAMINATION: 227, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: More Than One Week

Recovery Time: 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

FLOOD: 218, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Likely
Frequency: An Infrequent Event
Onset: No 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
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

ICE JAM: 204, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week

Impact:

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

TORNADO: 204, Moderately Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

RADIOLOGICAL (IN TRANSIT): 203, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare 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

TERRORISM - RADIOLOGICAL: 203, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare 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

HAZMAT (IN TRANSIT): 197, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

TERRORISM - CHEMICAL: 196, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare 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

ICE STORM: 180, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

EPIDEMIC: 168, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

Hazard(s) rated as low: RADIOLOGICAL (FIXED SITE), SEVERE STORMS, TERRORISM - BIOLOGICAL, EXPLOSION, HAZMAT (FIXED SITE), CIVIL UNREST, DAM FAILURE, EARTHQUAKE, LANDSLIDE, LANDSUBSIDENCE

RADIOLOGICAL (FIXED SITE): 161, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
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
 - Little or No Structural Damage to Public Facilities

SEVERE STORMS: 161, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

TERRORISM - BIOLOGICAL: 144, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EXPLOSION: 139, Low Hazard

Potential Impact: Single Location

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

HAZMAT (FIXED SITE): 136, Low Hazard

Potential Impact: Single Location

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: One to Two Days

Impact:

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

CIVIL UNREST: 130, Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

DAM FAILURE: 122, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Moderate Structural Damage to Public Facilities

EARTHQUAKE: 117, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSLIDE: 114, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSUBSIDENCE: 93, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

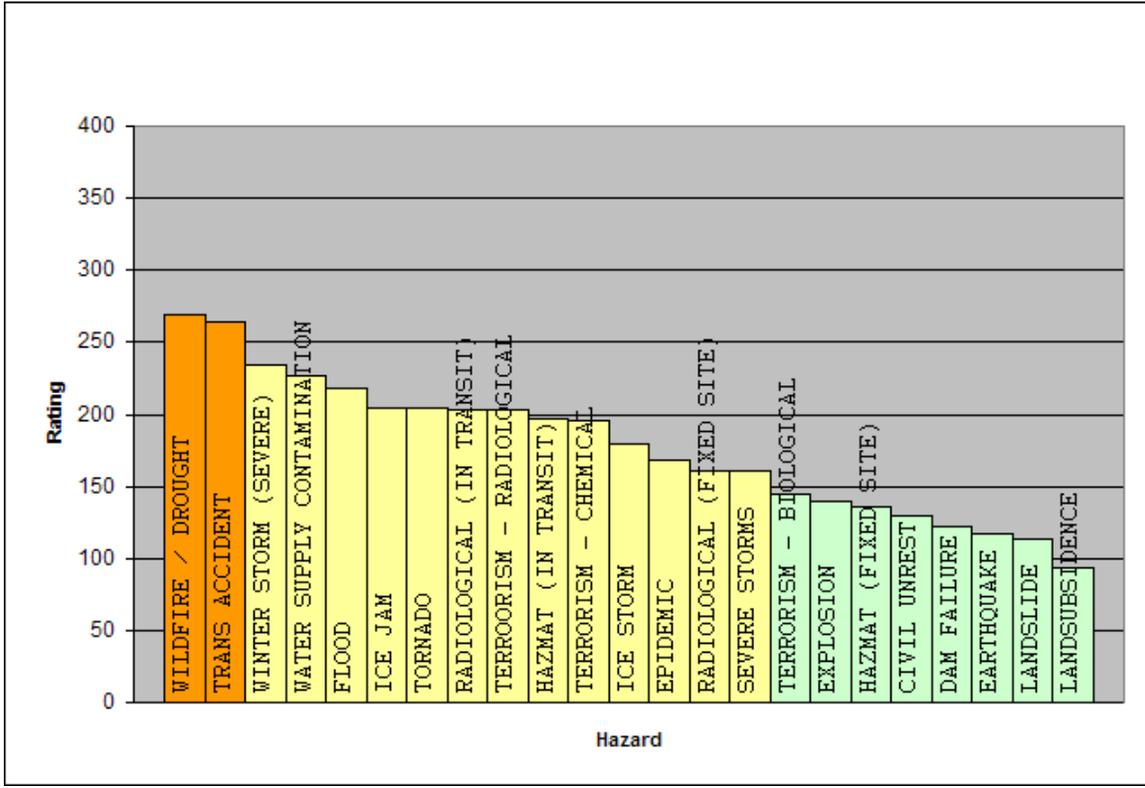
HAZARDS THAT OCCUR WITH NO WARNING*
WILDFIRE / DROUGHT
TRANS ACCIDENT
WATER SUPPLY CONTAMINATION
FLOOD
ICE JAM
TORNADO
RADIOLOGICAL (IN TRANSIT)
TERRORISM - RADIOLOGICAL
HAZMAT (IN TRANSIT)
TERRORISM - CHEMICAL
ICE STORM
EPIDEMIC
RADIOLOGICAL (FIXED SITE)
SEVERE STORMS
TERRORISM - BIOLOGICAL
EXPLOSION
HAZMAT (FIXED SITE)
CIVIL UNREST
DAM FAILURE
EARTHQUAKE
LANDSLIDE

* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*
WILDFIRE / DROUGHT
TRANS ACCIDENT

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Ellicottville

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																			
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery																
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #s	Injury/Death Large #s	Injury/Death Extreme #s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks		
WILDFIRE / DROUGHT	269																																						
TRANS ACCIDENT	264																																						
WINTER STORM (SEVERE)	234																																						
WATER SUPPLY CONTAMINATION	227																																						
FLOOD	218																																						
ICE JAM	204																																						
TORNADO	204																																						
RADIOLOGICAL (IN TRANSIT)	203																																						
TERROORISM - RADIOLOGICAL	203																																						
HAZMAT (IN TRANSIT)	197																																						
TERRORISM - CHEMICAL	196																																						
ICE STORM	180																																						
EPIDEMIC	168																																						
RADIOLOGICAL (FIXED SITE)	161																																						
SEVERE STORMS	161																																						
TERRORISM - BIOLOGICAL	144																																						
EXPLOSION	139																																						
HAZMAT (FIXED SITE)	136																																						
CIVIL UNREST	130																																						
DAM FAILURE	122																																						
EARTHQUAKE	117																																						
LANDSLIDE	114																																						
LANDSUBSIDENCE	93																																						

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

HAZNY

Background

On **4/14/11**, the Town of Farmersville conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and the Town of Farmersville**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Farmersville completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Farmersville. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
WINTER STORM (SEVERE)	304
SEVERE STORMS	276
FLOOD	239
ICE STORM	234
ICE JAM	230
DAM FAILURE	224
EARTHQUAKE	189
WILDFIRE/DROUGHT	189
HAZMAT (FIXED SITE)	183
LANDSLIDE	168
TORNADO	168
RADIOLOGICAL (IN TRANSIT)	161
WATER SUPPLY CONTAMINATION	161
TRANS ACCIDENT	152
LANDSUBSIDENCE	150
TERRORISM RADIOLOGICAL	140
EPIDEMIC	135
TERRORISM BIOLOGICAL	134
TERRORISM CHEMICAL	134
EXPLOSION	122
RADIOLOGICAL (FIXED SITE)	122
HAZMAT (IN TRANSIT)	113
CIVIL UNREST	86

Hazard(s) rated as moderately high: WINTER STORM (SEVERE), SEVERE STORMS

WINTER STORM (SEVERE): 304, Moderately High Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Frequent Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

SEVERE STORMS: 276, Moderately High Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Frequent Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Three Days to One Week

Impact:

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

Hazard(s) rated as moderately low: FLOOD, ICE STORM, ICE JAM, DAM FAILURE, EARTHQUAKE, WILDFIRE/DROUGHT, HAZMAT (FIXED SITE), LANDSLIDE, TORNADO

FLOOD: 239, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: Three Days to One Week

Impact:

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

ICE STORM: 234, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: Several Hours Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

ICE JAM: 230, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week

Impact:

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

DAM FAILURE: 224, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
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 Unlikely
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

EARTHQUAKE: 189, Moderately Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: More Than Two Weeks

Impact:

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

WILDFIRE/DROUGHT: 189, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 183, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: One to Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSLIDE: 168, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TORNADO: 168, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

Hazard(s) rated as low: RADIOLOGICAL (IN TRANSIT), WATER SUPPLY CONTAMINATION, TRANS ACCIDENT, LANDSUBSIDENCE, TERRORISM RADIOLOGICAL, EPIDEMIC, TERRORISM BIOLOGICAL, TERRORISM CHEMICAL, EXPLOSION, RADIOLOGICAL (FIXED SITE), HAZMAT (IN TRANSIT), CIVIL UNREST

RADIOLOGICAL (IN TRANSIT): 161, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
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 is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 161, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
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
 - Little or No Structural Damage to Public Facilities

TRANS ACCIDENT: 152, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

LANDSUBSIDENCE: 150, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM RADIOLOGICAL: 140, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: More Than Two Weeks

Impact:

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

EPIDEMIC: 135, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: One Day Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week

Impact:

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

TERRORISM BIOLOGICAL: 134, Low Hazard

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

Impact:

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

TERRORISM CHEMICAL: 134, Low Hazard

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

Impact:

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

EXPLOSION: 122, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

RADIOLOGICAL (FIXED SITE): 122, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

HAZMAT (IN TRANSIT): 113, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

CIVIL UNREST: 86, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

WINTER STORM (SEVERE)
SEVERE STORMS
FLOOD
ICE JAM
DAM FAILURE
EARTHQUAKE
HAZMAT (FIXED SITE)
LANDSLIDE
RADIOLOGICAL (IN TRANSIT)

WATER SUPPLY CONTAMINATION
TRANS ACCIDENT
LANDSUBSIDENCE
TERRORISM RADIOLOGICAL
TERRORISM BIOLOGICAL
TERRORISM CHEMICAL
EXPLOSION
RADIOLOGICAL (FIXED SITE)

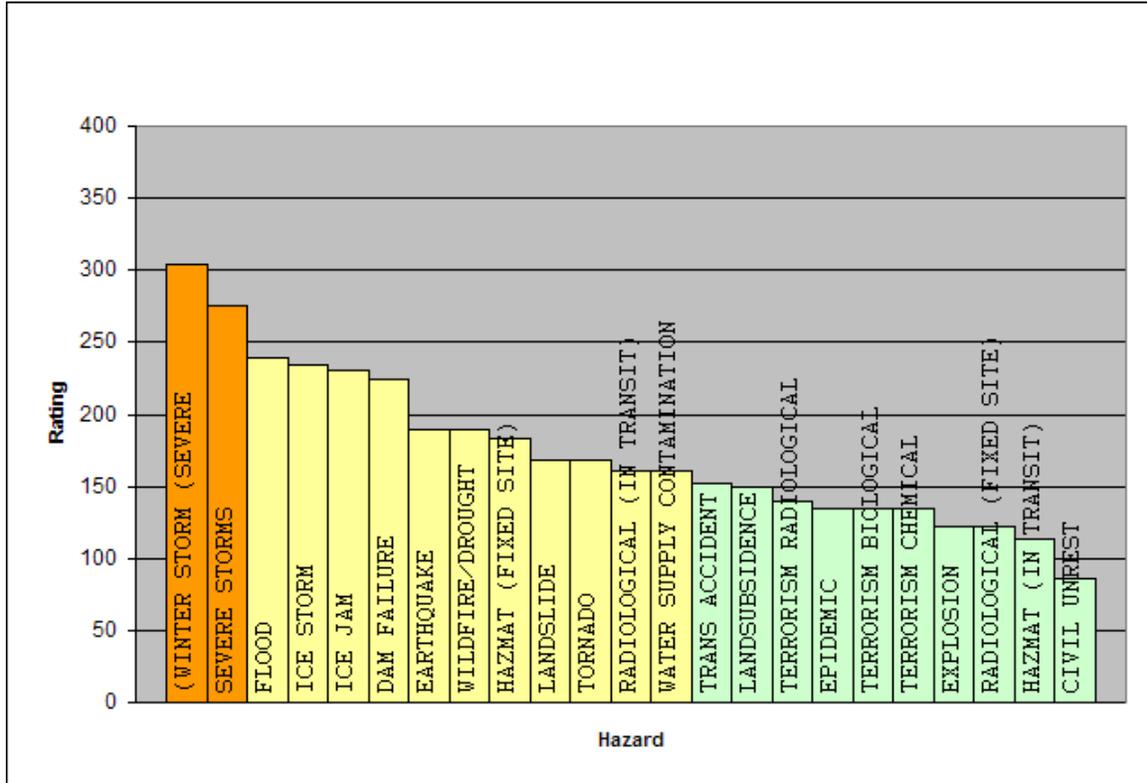
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

WINTER STORM (SEVERE)
SEVERE STORMS

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Farmersville

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																			
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery																
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks		
WINTER STORM (SEVERE)	304																																						
SEVERE STORMS	276																																						
FLOOD	239																																						
ICE STORM	234																																						
ICE JAM	230																																						
DAM FAILURE	224																																						
EARTHQUAKE	189																																						
WILDFIRE/DROUGHT	189																																						
HAZMAT (FIXED SITE)	183																																						
LANDSLIDE	168																																						
TORNADO	168																																						
RADIOLOGICAL (IN TRANSIT)	161																																						
WATER SUPPLY CONTAMINATION	161																																						
TRANS ACCIDENT	152																																						
LANDSUBSIDENCE	150																																						
TERRORISM RADIOLOGICAL	140																																						
EPIDEMIC	135																																						
TERRORISM BIOLOGICAL	134																																						
TERRORISM CHEMICAL	134																																						
EXPLOSION	122																																						
RADIOLOGICAL (FIXED SITE)	122																																						
HAZMAT (IN TRANSIT)	113																																						
CIVIL UNREST	86																																						

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

HAZNY

Background

On 4/14/11, the Town of Hinsdale conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and the Town of Hinsdale**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Hinsdale completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Hinsdale. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
FLOOD	283
TRANS ACCIDENT	240
WINTER STORM (SEVERE)	235
ICE JAM	231
SEVERE STORMS	146
TORNADO	140
HAZMAT (IN TRANSIT)	136
EARTHQUAKE	124
EXPLOSION	124
WILDFIRE / DROUGHT	124
ICE STORM	123
LANDSLIDE	122
EPIDEMIC	116
CIVIL UNREST	107
DAM FAILURE	107
RADIOLOGICAL (IN TRANSIT)	107
TERRORISM - BIOLOGICAL	107
TERRORISM - CHEMICAL	107
TERRORISM - RADIOLOGICAL	107
WATER SUPPLY CONTAMINATION	107
HAZMAT (FIXED SITE)	44
LANDSUBSIDENCE	44
RADIOLOGICAL (FIXED SITE)	44

Hazard(s) rated as moderately high: FLOOD

FLOOD: 283, Moderately High Hazard

- Potential Impact:** Several Locations
- Cascade Effects:** Highly Likely
- Frequency:** A Regular Event
- Onset:** No Warning
- Hazard Duration:** Four days to One Week
- Recovery Time:** One to 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

Hazard(s) rated as moderately low: TRANS ACCIDENT, WINTER STORM (SEVERE), ICE JAM

TRANS ACCIDENT: 240, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Highly Unlikely
Frequency: A Frequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WINTER STORM (SEVERE): 235, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: Several Hours Warning
Hazard Duration: More Than One Week
Recovery Time: One to Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE JAM: 231, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Hazard(s) rated as low: SEVERE STORMS, TORNADO, HAZMAT (IN TRANSIT), EARTHQUAKE, EXPLOSION, WILDFIRE / DROUGHT, ICE STORM, LANDSLIDE, EPIDEMIC, CIVIL UNREST, DAM FAILURE, RADIOLOGICAL (IN TRANSIT), TERRORISM - BIOLOGICAL, TERRORISM - CHEMICAL, TERRORISM - RADIOLOGICAL, WATER SUPPLY CONTAMINATION, HAZMAT (FIXED SITE), LANDSUBSIDENCE, RADIOLOGICAL (FIXED SITE)

SEVERE STORMS: 146, Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:

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

TORNADO: 140, Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:

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

HAZMAT (IN TRANSIT): 136, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:

- Serious Injury or Death is Likely, but not in Large Numbers

- Moderate Damage to Private Property
- Little or No Structural Damage to Public Facilities

EARTHQUAKE: 124, Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

EXPLOSION: 124, Low Hazard

Potential Impact: Single Location

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

WILDFIRE / DROUGHT: 124, Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

ICE STORM: 123, Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

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

LANDSLIDE: 122, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days

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

EPIDEMIC: 116, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

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

CIVIL UNREST: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

DAM FAILURE: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

RADIOLOGICAL (IN TRANSIT): 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM - BIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - CHEMICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - RADIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSUBSIDENCE: 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 44, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

FLOOD
TRANS ACCIDENT
ICE JAM
HAZMAT (IN TRANSIT)
EARTHQUAKE
EXPLOSION
WILDFIRE / DROUGHT
LANDSLIDE
EPIDEMIC
CIVIL UNREST
DAM FAILURE
RADIOLOGICAL (IN TRANSIT)
TERRORISM - BIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - RADIOLOGICAL
WATER SUPPLY CONTAMINATION

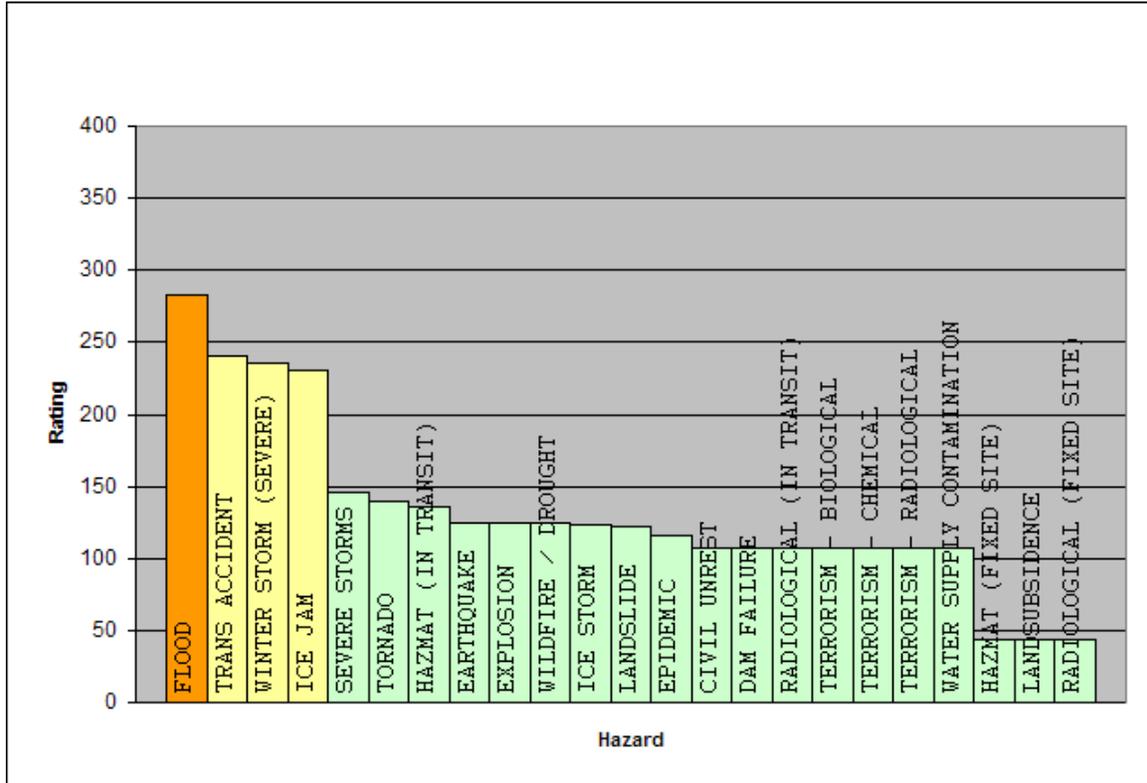
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

TRANS ACCIDENT

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Hinsdale

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																		
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery															
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #s	Injury/Death Large #s	Injury/Death Extreme #s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
FLOOD	283																																					
TRANS ACCIDENT	240																																					
WINTER STORM (SEVERE)	235																																					
ICE JAM	231																																					
SEVERE STORMS	146																																					
TORNADO	140																																					
HAZMAT (IN TRANSIT)	136																																					
EARTHQUAKE	124																																					
EXPLOSION	124																																					
WILDFIRE / DROUGHT	124																																					
ICE STORM	123																																					
LANDSLIDE	122																																					
EPIDEMIC	116																																					
CIVIL UNREST	107																																					
DAM FAILURE	107																																					
RADIOLOGICAL (IN TRANSIT)	107																																					
TERRORISM - BIOLOGICAL	107																																					
TERRORISM - CHEMICAL	107																																					
TERRORISM - RADIOLOGICAL	107																																					
WATER SUPPLY CONTAMINATION	107																																					
HAZMAT (FIXED SITE)	44																																					
LANDSUBSIDENCE	44																																					
RADIOLOGICAL (FIXED SITE)	44																																					

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

HAZNY

Background

On **4/14/11**, the Town of Humphrey conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and the Town of Humphrey**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Humphrey completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Humphrey. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
SEVERE STORMS	294
TERRORISM - BIOLOGICAL	285
WINTER STORM (SEVERE)	274
ICE JAM	269
ICE STORM	260
TORNADO	256
FLOOD	252
TERRORISM - CHEMICAL	242
TERRORISM - RADIOLOGICAL	242
EARTHQUAKE	230
LANDSLIDE	227
HAZMAT (IN TRANSIT)	223
EXPLOSION	193
DAM FAILURE	192
WATER SUPPLY CONTAMINATION	186
RADIOLOGICAL (IN TRANSIT)	184
RADIOLOGICAL (FIXED SITE)	176
EPIDEMIC	174
LANDSUBSIDENCE	161
WILDFIRE / DROUGHT	154
TRANS ACCIDENT	144
CIVIL UNREST	117
HAZMAT (FIXED SITE)	82

Hazard(s) rated as moderately high: SEVERE STORMS, TERRORISM - BIOLOGICAL, WINTER STORM (SEVERE), ICE JAM, ICE STORM, TORNADO, FLOOD, TERRORISM - CHEMICAL, TERRORISM - RADIOLOGICAL

SEVERE STORMS: 294, Moderately High Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Likely

Frequency: A Regular 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

TERRORISM - BIOLOGICAL: 285, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death to Extremely Large Numbers
 - Severe Damage to Private Property
 - Severe Structural Damage to Public Facilities

WINTER STORM (SEVERE): 274, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Frequent Event
Onset: Several Days Warning
Hazard Duration: Four days to One Week
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE JAM: 269, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Regular 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
 - Severe Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE STORM: 260, Moderately High Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Likely

Frequency: A Regular 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
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

TORNADO: 256, Moderately High Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Regular 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
- Moderate Structural Damage to Public Facilities

FLOOD: 252, Moderately High Hazard

Potential Impact: Several Locations

Cascade Effects: Highly Likely

Frequency: An Infrequent Event

Onset: Several Hours 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

TERRORISM - CHEMICAL: 242, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death to Extremely Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - RADIOLOGICAL: 242, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death to Extremely Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Hazard(s) rated as moderately low: EARTHQUAKE, LANDSLIDE, HAZMAT (IN TRANSIT), EXPLOSION, DAM FAILURE, WATER SUPPLY CONTAMINATION, RADIOLOGICAL (IN TRANSIT), RADIOLOGICAL (FIXED SITE), EPIDEMIC

EARTHQUAKE: 230, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

LANDSLIDE: 227, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No 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

HAZMAT (IN TRANSIT): 223, Moderately Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Some Potential
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
- Little or No Damage to Private Property
- Little or No Structural Damage to Public Facilities

EXPLOSION: 193, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare 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

DAM FAILURE: 192, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No 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
- Moderate Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 186, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare 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
- Little or No Damage to Private Property
- Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 184, Moderately Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Some Potential
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
- Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 176, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
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
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EPIDEMIC: 174, Moderately Low Hazard

Potential Impact: Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Days Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks

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

Hazard(s) rated as low: LANDSUBSIDENCE, WILDFIRE / DROUGHT, TRANS ACCIDENT, CIVIL UNREST, HAZMAT (FIXED SITE)

LANDSUBSIDENCE: 161, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
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
 - Little or No Structural Damage to Public Facilities

WILDFIRE / DROUGHT: 154, Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Days Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks

Impact:

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

TRANS ACCIDENT: 144, Low Hazard

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

Impact:

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

CIVIL UNREST: 117, Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

HAZMAT (FIXED SITE): 82, Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

TERRORISM - BIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - RADIOLOGICAL
EARTHQUAKE
LANDSLIDE
HAZMAT (IN TRANSIT)
EXPLOSION
DAM FAILURE
WATER SUPPLY CONTAMINATION
RADIOLOGICAL (IN TRANSIT)
RADIOLOGICAL (FIXED SITE)
LANDSUBSIDENCE
TRANS ACCIDENT
CIVIL UNREST

* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

WINTER STORM (SEVERE)

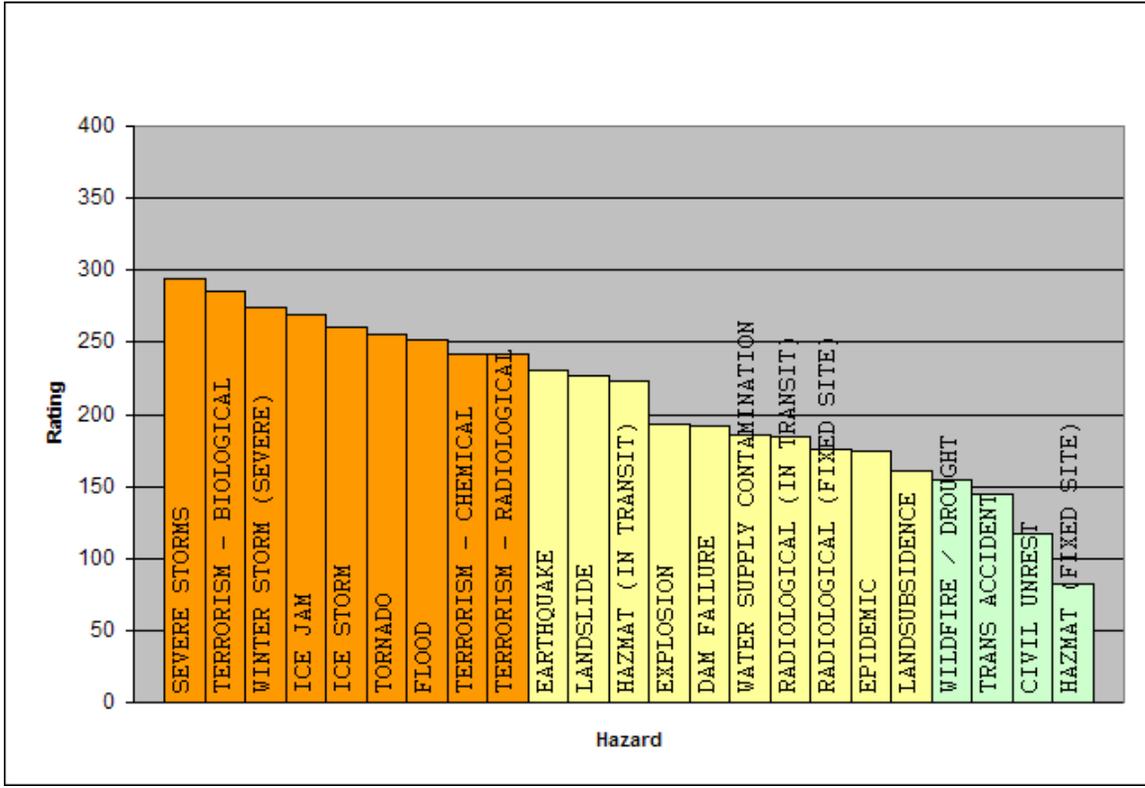
*A frequent event was selected on frequency Tab.

HAZARDS THAT PRESENT THE GREATEST THREAT TO LIFE*

TERRORISM - BIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - RADIOLOGICAL
EPIDEMIC

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

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Humphrey

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																		
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery															
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
SEVERE STORMS	294																																					
TERRORISM - BIOLOGICAL	285																																					
WINTER STORM (SEVERE)	274																																					
ICE JAM	269																																					
ICE STORM	260																																					
TORNADO	256																																					
FLOOD	252																																					
TERRORISM - CHEMICAL	242																																					
TERRORISM - RADIOLOGICAL	242																																					
EARTHQUAKE	230																																					
LANDSLIDE	227																																					
HAZMAT (IN TRANSIT)	223																																					
EXPLOSION	193																																					
DAM FAILURE	192																																					
WATER SUPPLY CONTAMINATION	186																																					
RADIOLOGICAL (IN TRANSIT)	184																																					
RADIOLOGICAL (FIXED SITE)	176																																					
EPIDEMIC	174																																					
LANDSUBSIDENCE	161																																					
WILDFIRE / DROUGHT	154																																					
TRANS ACCIDENT	144																																					
CIVIL UNREST	117																																					
HAZMAT (FIXED SITE)	82																																					

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

HAZNY

Background

On 4/14/11, the Town of Ischua conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Town of Ischua

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Ischua completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Ischua. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
FLOOD	293
SEVERE STORMS	238
WINTER STORM (SEVERE)	238
ICE STORM	211
TRANS ACCIDENT	198
LANDSUBSIDENCE	135
LANDSLIDE	126
EARTHQUAKE	124
EPIDEMIC	116
EXPLOSION	116
ICE JAM	114
CIVIL UNREST	107
DAM FAILURE	107
HAZMAT (FIXED SITE)	107
HAZMAT (IN TRANSIT)	107
RADIOLOGICAL (IN TRANSIT)	107
TERRORISM - BIOLOGICAL	107
TERRORISM - CHEMICAL	107
TERRORISM - RADIOLOGICAL	107
TORNADO	107
WATER SUPPLY CONTAMINATION	72
WILDFIRE / DROUGHT	58
RADIOLOGICAL (FIXED SITE)	44

Hazard(s) rated as moderately high: FLOOD

FLOOD: 293, Moderately High Hazard

- Potential Impact:** Several Locations
- Cascade Effects:** Some Potential
- Frequency:** A Regular Event
- Onset:** No Warning
- Hazard Duration:** Four days to One Week
- Recovery Time:** 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

Hazard(s) rated as moderately low: SEVERE STORMS, WINTER STORM (SEVERE), ICE STORM, TRANS ACCIDENT

SEVERE STORMS: 238, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WINTER STORM (SEVERE): 238, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: Several Hours Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE STORM: 211, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: One Day Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

TRANS ACCIDENT: 198, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

Hazard(s) rated as low: LANDSUBSIDENCE, LANDSLIDE, EARTHQUAKE, EPIDEMIC, EXPLOSION, ICE JAM, CIVIL UNREST, DAM FAILURE, HAZMAT (FIXED SITE), HAZMAT (IN TRANSIT), RADIOLOGICAL (IN TRANSIT), TERRORISM - BIOLOGICAL, TERRORISM - CHEMICAL, TERRORISM - RADIOLOGICAL, TORNADO, WATER SUPPLY CONTAMINATION, WILDFIRE / DROUGHT, RADIOLOGICAL (FIXED SITE)

LANDSUBSIDENCE: 135, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: One to Two Days

Impact:

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

LANDSLIDE: 126, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

EARTHQUAKE: 124, Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

EPIDEMIC: 116, Low Hazard

Potential Impact: Single Location

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

EXPLOSION: 116, Low Hazard

Potential Impact: Single Location

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

ICE JAM: 114, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

CIVIL UNREST: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

DAM FAILURE: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

HAZMAT (FIXED SITE): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - BIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - CHEMICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - RADIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TORNADO: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 72, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: One Day Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WILDFIRE / DROUGHT: 58, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: Several Days Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 44, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

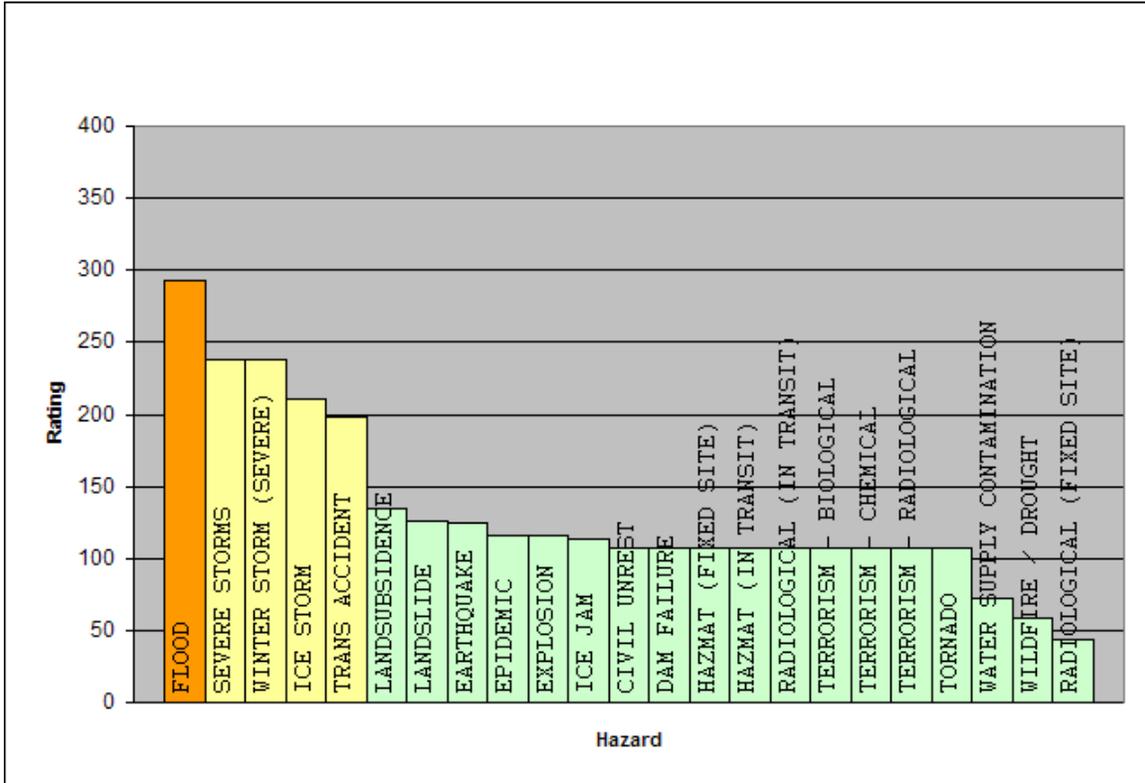
Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

FLOOD
SEVERE STORMS
TRANS ACCIDENT
LANDSUBSIDENCE
LANDSLIDE
EARTHQUAKE
EPIDEMIC
EXPLOSION
ICE JAM
CIVIL UNREST
DAM FAILURE
HAZMAT (FIXED SITE)
HAZMAT (IN TRANSIT)
RADIOLOGICAL (IN TRANSIT)
TERRORISM - BIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - RADIOLOGICAL
TORNADO

* No warning was selected from the Onset Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Ischua

Hazard	Rating	SCOPE						FREQUENCY				IMPACT						ONSET			DURATION																	
		Potential Area Of Impact			Cascade Effect			Frequency				People		Private Property		Public Facilities		Warning			Hazard			Recovery														
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
FLOOD	293																																					
SEVERE STORMS	238																																					
WINTER STORM (SEVERE)	238																																					
ICE STORM	211																																					
TRANS ACCIDENT	198																																					
LANDSUBSIDENCE	135																																					
LANDSLIDE	126																																					
EARTHQUAKE	124																																					
EPIDEMIC	116																																					
EXPLOSION	116																																					
ICE JAM	114																																					
CIVIL UNREST	107																																					
DAM FAILURE	107																																					
HAZMAT (FIXED SITE)	107																																					
HAZMAT (IN TRANSIT)	107																																					
RADIOLOGICAL (IN TRANSIT)	107																																					
TERRORISM - BIOLOGICAL	107																																					
TERRORISM - CHEMICAL	107																																					
TERRORISM - RADIOLOGICAL	107																																					
TORNADO	107																																					
WATER SUPPLY CONTAMINATION	72																																					
WILDFIRE / DROUGHT	58																																					
RADIOLOGICAL (FIXED SITE)	44																																					

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

HAZNY

Background

On 4/14/11, the Town of Leon conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Town of Leon

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Leon completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Leon. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
FLOOD	289
WILDFIRE / DROUGHT	267
SEVERE STORMS	262
EPIDEMIC	258
ICE STORM	257
WINTER STORM (SEVERE)	248
TORNADO	227
TRANS ACCIDENT	224
CIVIL UNREST	211
HAZMAT (IN TRANSIT)	168
EARTHQUAKE	159
LANDSLIDE	134
EXPLOSION	130
TERRORISM - BIOLOGICAL	107
TERRORISM - CHEMICAL	107
TERRORISM - RADIOLOGICAL	107
WATER SUPPLY CONTAMINATION	107
DAM FAILURE	44
HAZMAT (FIXED SITE)	44
ICE JAM	44
LANDSUBSIDENCE	44
RADIOLOGICAL (FIXED SITE)	44
RADIOLOGICAL (IN TRANSIT)	44

Hazard(s) rated as moderately high: FLOOD, WILDFIRE / DROUGHT, SEVERE STORMS, EPIDEMIC, ICE STORM, WINTER STORM (SEVERE)

FLOOD: 289, Moderately High Hazard

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

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

WILDFIRE / DROUGHT: 267, Moderately High Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Frequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Moderate Structural Damage to Public Facilities

SEVERE STORMS: 262, Moderately High Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
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
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

EPIDEMIC: 258, Moderately High Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Regular 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
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

ICE STORM: 257, Moderately High Hazard

Potential Impact: Throughout a Small Region

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 Unlikely
- Little or No Damage to Private Property
- Little or No Structural Damage to Public Facilities

WINTER STORM (SEVERE): 248, Moderately High Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Highly Likely

Frequency: A Frequent Event

Onset: Several Hours Warning

Hazard Duration: One Day

Recovery Time: One to Two Weeks

Impact:

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

Hazard(s) rated as moderately low: TORNADO, TRANS ACCIDENT, CIVIL UNREST, HAZMAT (IN TRANSIT)

TORNADO: 227, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: An Infrequent Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: More Than Two Weeks

Impact:

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

TRANS ACCIDENT: 224, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Frequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

CIVIL UNREST: 211, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Likely
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

HAZMAT (IN TRANSIT): 168, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

Hazard(s) rated as low: EARTHQUAKE, LANDSLIDE, EXPLOSION, TERRORISM - BIOLOGICAL, TERRORISM - CHEMICAL, TERRORISM - RADIOLOGICAL, WATER SUPPLY CONTAMINATION, DAM FAILURE,

HAZMAT (FIXED SITE), ICE JAM, LANDSUBSIDENCE, RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT)

EARTHQUAKE: 159, Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Moderate Structural Damage to Public Facilities

LANDSLIDE: 134, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EXPLOSION: 130, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

TERRORISM - BIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - CHEMICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - RADIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

DAM FAILURE: 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

ICE JAM: 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSUBSIDENCE: 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

Biggest Hazards

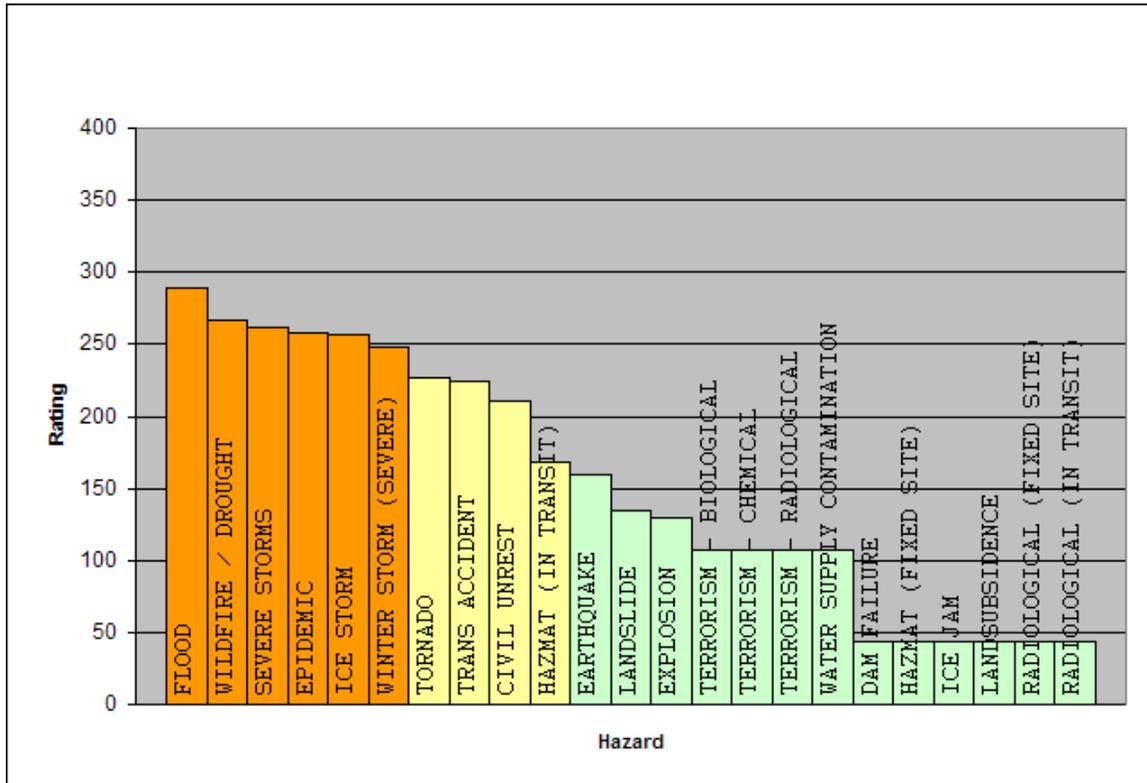
HAZARDS THAT OCCUR WITH NO WARNING*
WILDFIRE / DROUGHT
EPIDEMIC
TORNADO
TRANS ACCIDENT
CIVIL UNREST
HAZMAT (IN TRANSIT)
EARTHQUAKE
LANDSLIDE
EXPLOSION
TERRORISM - BIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - RADIOLOGICAL
WATER SUPPLY CONTAMINATION

* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*
FLOOD
WILDFIRE / DROUGHT
SEVERE STORMS
ICE STORM
WINTER STORM (SEVERE)
TRANS ACCIDENT

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Leon

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																		
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery															
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
FLOOD	289																																					
WILDFIRE / DROUGHT	267																																					
SEVERE STORMS	262																																					
EPIDEMIC	258																																					
ICE STORM	257																																					
WINTER STORM (SEVERE)	248																																					
TORNADO	227																																					
TRANS ACCIDENT	224																																					
CIVIL UNREST	211																																					
HAZMAT (IN TRANSIT)	168																																					
EARTHQUAKE	159																																					
LANDSLIDE	134																																					
EXPLOSION	130																																					
TERRORISM - BIOLOGICAL	107																																					
TERRORISM - CHEMICAL	107																																					
TERRORISM - RADIOLOGICAL	107																																					
WATER SUPPLY CONTAMINATION	107																																					
DAM FAILURE	44																																					
HAZMAT (FIXED SITE)	44																																					
ICE JAM	44																																					
LANDSUBSIDENCE	44																																					
RADIOLOGICAL (FIXED SITE)	44																																					
RADIOLOGICAL (IN TRANSIT)	44																																					

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

HAZNY

Background

On 4/14/11, the Town of Little Valley conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Town of Little Valley

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Little Valley completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Little Valley. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
WINTER STORM (SEVERE)	287
SEVERE STORMS	246
FLOOD	240
ICE STORM	214
TORNADO	210
ICE JAM	204
LANDSLIDE	204
LANDSUBSIDENCE	174
EARTHQUAKE	160
EXPLOSION	142
WILDFIRE / DROUGHT	124
CIVIL UNREST	107
EPIDEMIC	107
HAZMAT (FIXED SITE)	107
HAZMAT (IN TRANSIT)	107
RADIOLOGICAL (FIXED SITE)	107
RADIOLOGICAL (IN TRANSIT)	107
TERRORISM - BIOLOGICAL	107
TERRORISM - CHEMICAL	107
TERRORISM - RADIOLOGICAL	107
TRANS ACCIDENT	107
WATER SUPPLY CONTAMINATION	107
DAM FAILURE	44

Hazard(s) rated as moderately high: WINTER STORM (SEVERE), SEVERE STORMS

WINTER STORM (SEVERE): 287, Moderately High Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Frequent Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

SEVERE STORMS: 246, Moderately High Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

Hazard(s) rated as moderately low: FLOOD, ICE STORM, TORNADO, ICE JAM, LANDSLIDE, LANDSUBSIDENCE

FLOOD: 240, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

ICE STORM: 214, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

TORNADO: 210, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE JAM: 204, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

LANDSLIDE: 204, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Likely
Frequency: An Infrequent Event
Onset: No 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

LANDSUBSIDENCE: 174, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely

Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

Hazard(s) rated as low: EARTHQUAKE, EXPLOSION, WILDFIRE / DROUGHT, CIVIL UNREST, EPIDEMIC, HAZMAT (FIXED SITE), HAZMAT (IN TRANSIT), RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT), TERRORISM - BIOLOGICAL, TERRORISM - CHEMICAL, TERRORISM - RADIOLOGICAL, TRANS ACCIDENT, WATER SUPPLY CONTAMINATION, DAM FAILURE

EARTHQUAKE: 160, Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Highly Unlikely

Frequency: An Infrequent Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

EXPLOSION: 142, Low Hazard

Potential Impact: Several Locations

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

WILDFIRE / DROUGHT: 124, Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

CIVIL UNREST: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EPIDEMIC: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - BIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - CHEMICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - RADIOLOGICAL: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TRANS ACCIDENT: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

WATER SUPPLY CONTAMINATION: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

DAM FAILURE: 44, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

WINTER STORM (SEVERE)
SEVERE STORMS
FLOOD
ICE STORM
TORNADO
ICE JAM
LANDSLIDE
LANDSUBSIDENCE
EARTHQUAKE
EXPLOSION
WILDFIRE / DROUGHT
CIVIL UNREST
EPIDEMIC
HAZMAT (FIXED SITE)
HAZMAT (IN TRANSIT)
RADIOLOGICAL (FIXED SITE)
RADIOLOGICAL (IN TRANSIT)
TERRORISM - BIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - RADIOLOGICAL
TRANS ACCIDENT
WATER SUPPLY CONTAMINATION

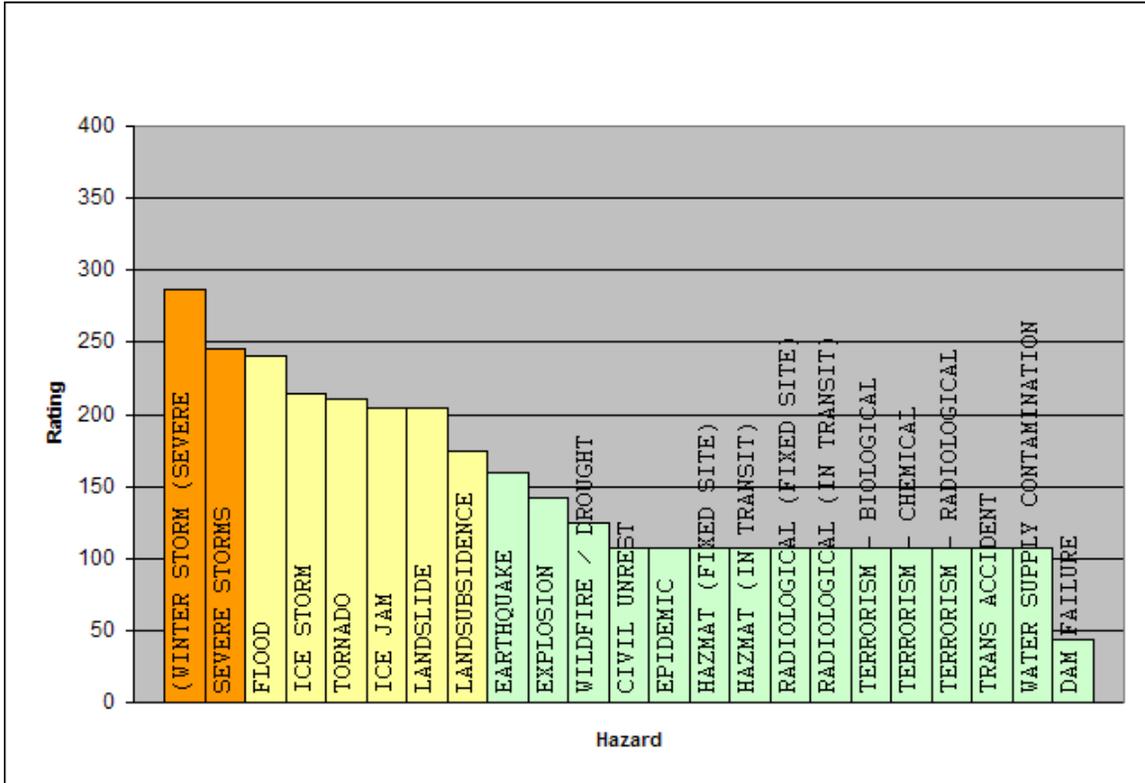
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

WINTER STORM (SEVERE)

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



HAZNY

Background

On **4/14/11**, the Town of Lyndon conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and the Town of Lyndon**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Lyndon completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Lyndon. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Highway Superintendant rated the 23 hazards as follows:

Hazard	Rating
WINTER STORM (SEVERE)	320
FLOOD	270
ICE STORM	254
ICE JAM	240
SEVERE STORMS	240
DAM FAILURE	214
TORNADO	201
WATER SUPPLY CONTAMINATION	197
WILDFIRE/DROUGHT	189
EARTHQUAKE	166
HAZMAT (IN TRANSIT)	164
LANDSLIDE	156
TRANS ACCIDENT	152
CIVIL UNREST	143
EPIDEMIC	143
EXPLOSION	143
HAZMAT (FIXED SITE)	143
LANDSUBSIDENCE	143
RADIOLOGICAL (FIXED SITE)	143
RADIOLOGICAL (IN TRANSIT)	143
TERRORISM CHEMICAL	143
TERRORISM RADIOLOGICAL	143
TERRORISM BIOLOGICAL	107

Hazard(s) rated as moderately high: WINTER STORM (SEVERE), FLOOD, ICE STORM

WINTER STORM (SEVERE): 320, Moderately High Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Frequent Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

FLOOD: 270, Moderately High Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: One Day
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

ICE STORM: 254, Moderately High Hazard

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

Impact:

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

Hazard(s) rated as moderately low: ICE JAM, SEVERE STORMS, DAM FAILURE, TORNADO, WATER SUPPLY CONTAMINATION, WILDFIRE/DROUGHT, EARTHQUAKE, HAZMAT (IN TRANSIT)

ICE JAM: 240, Moderately Low Hazard

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

Impact:

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

SEVERE STORMS: 240, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

DAM FAILURE: 214, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
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 Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

TORNADO: 201, Moderately Low Hazard

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

WATER SUPPLY CONTAMINATION: 197, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent 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
 - Little or No Structural Damage to Public Facilities

WILDFIRE/DROUGHT: 189, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

EARTHQUAKE: 166, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 164, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

Hazard(s) rated as low: LANDSLIDE, TRANS ACCIDENT, CIVIL UNREST, EPIDEMIC, EXPLOSION, HAZMAT (FIXED SITE), LANDSUBSIDENCE, RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT), TERRORISM CHEMICAL, TERRORISM RADIOLOGICAL, TERRORISM BIOLOGICAL

LANDSLIDE: 156, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days

Impact:

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

TRANS ACCIDENT: 152, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

CIVIL UNREST: 143, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EPIDEMIC: 143, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EXPLOSION: 143, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 143, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSUBSIDENCE: 143, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 143, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 143, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM CHEMICAL: 143, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM RADIOLOGICAL: 143, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM BIOLOGICAL: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

WINTER STORM (SEVERE)
FLOOD
ICE STORM
ICE JAM
SEVERE STORMS
DAM FAILURE
TORNADO
WATER SUPPLY CONTAMINATION
EARTHQUAKE

HAZMAT (IN TRANSIT)
LANDSLIDE
TRANS ACCIDENT
CIVIL UNREST
EPIDEMIC
EXPLOSION
HAZMAT (FIXED SITE)
LANDSUBSIDENCE
RADIOLOGICAL (FIXED SITE)
RADIOLOGICAL (IN TRANSIT)
TERRORISM CHEMICAL
TERRORISM RADIOLOGICAL
TERRORISM BIOLOGICAL

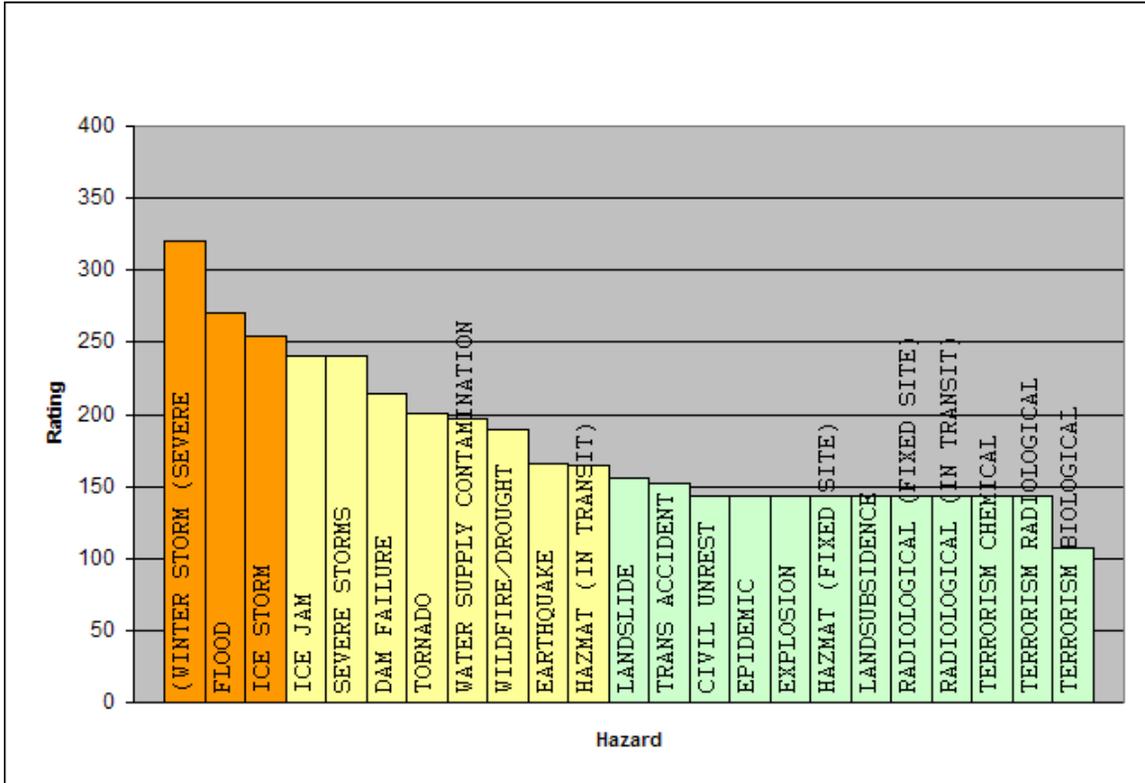
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

WINTER STORM (SEVERE)

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Lyndon

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																		
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery															
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
WINTER STORM (SEVERE)	320																																					
FLOOD	270																																					
ICE STORM	254																																					
ICE JAM	240																																					
SEVERE STORMS	240																																					
DAM FAILURE	214																																					
TORNADO	201																																					
WATER SUPPLY CONTAMINATION	197																																					
WILDFIRE/DROUGHT	189																																					
EARTHQUAKE	166																																					
HAZMAT (IN TRANSIT)	164																																					
LANDSLIDE	156																																					
TRANS ACCIDENT	152																																					
CIVIL UNREST	143																																					
EPIDEMIC	143																																					
EXPLOSION	143																																					
HAZMAT (FIXED SITE)	143																																					
LANDSUBSIDENCE	143																																					
RADIOLOGICAL (FIXED SITE)	143																																					
RADIOLOGICAL (IN TRANSIT)	143																																					
TERRORISM CHEMICAL	143																																					
TERRORISM RADIOLOGICAL	143																																					
TERRORISM BIOLOGICAL	107																																					

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

HAZNY

Background

On **4/14/11**, the Town of Machias conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and the Town of Machias**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Machias completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Machias. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
WINTER STORM (SEVERE)	320
FLOOD	256
ICE STORM	254
ICE JAM	246
SEVERE STORMS	240
DAM FAILURE	214
TORNADO	189
WILDFIRE / DROUGHT	189
WATER SUPPLY CONTAMINATION	174
HAZMAT (FIXED SITE)	164
EARTHQUAKE	158
EXPLOSION	152
TRANS ACCIDENT	152
CIVIL UNREST	143
HAZMAT (IN TRANSIT)	143
LANDSLIDE	119
EPIDEMIC	107
LANDSUBSIDENCE	107
RADIOLOGICAL (FIXED SITE)	107
RADIOLOGICAL (IN TRANSIT)	107
TERRORISM - BIOLOGICAL	107
TERRORISM - CHEMICAL	107
TERRORISM - RADIOLOGICAL	107

Hazard(s) rated as moderately high: WINTER STORM (SEVERE), FLOOD, ICE STORM, ICE JAM

WINTER STORM (SEVERE): 320, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
- Cascade Effects:** Some Potential
- Frequency:** A Frequent Event
- Onset:** No Warning
- Hazard Duration:** Two to Three Days
- Recovery Time:** Three Days to One Week
- Impact:**
 - Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Severe Structural Damage to Public Facilities

FLOOD: 256, Moderately High Hazard

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

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

ICE STORM: 254, Moderately High Hazard

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

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

ICE JAM: 246, Moderately High Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: One to Two Weeks

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

Hazard(s) rated as moderately low: SEVERE STORMS, DAM FAILURE, TORNADO, WILDFIRE / DROUGHT, WATER SUPPLY CONTAMINATION, HAZMAT (FIXED SITE)

SEVERE STORMS: 240, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

DAM FAILURE: 214, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
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 Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

TORNADO: 189, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

WILDFIRE / DROUGHT: 189, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 174, Moderately Low Hazard

- Potential Impact:** Single Location
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
 - Little or No Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 164, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Hazard(s) rated as low: EARTHQUAKE, EXPLOSION, TRANS ACCIDENT, CIVIL UNREST, HAZMAT (IN TRANSIT), LANDSLIDE, EPIDEMIC, LANDSUBSIDENCE, RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN

**TRANSIT), TERRORISM - BIOLOGICAL, TERRORISM - CHEMICAL,
TERRORISM - RADIOLOGICAL**

EARTHQUAKE: 158, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Moderate Structural Damage to Public Facilities

EXPLOSION: 152, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: One Day Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

TRANS ACCIDENT: 152, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

CIVIL UNREST: 143, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 143, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSLIDE: 119, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EPIDEMIC: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSUBSIDENCE: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - BIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - CHEMICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - RADIOLOGICAL: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

WINTER STORM (SEVERE)
FLOOD
ICE STORM
ICE JAM
SEVERE STORMS
DAM FAILURE
TORNADO
WATER SUPPLY CONTAMINATION
HAZMAT (FIXED SITE)

EARTHQUAKE
TRANS ACCIDENT
CIVIL UNREST
HAZMAT (IN TRANSIT)
LANDSLIDE
EPIDEMIC
LANDSUBSIDENCE
RADIOLOGICAL (FIXED SITE)
RADIOLOGICAL (IN TRANSIT)
TERRORISM - BIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - RADIOLOGICAL

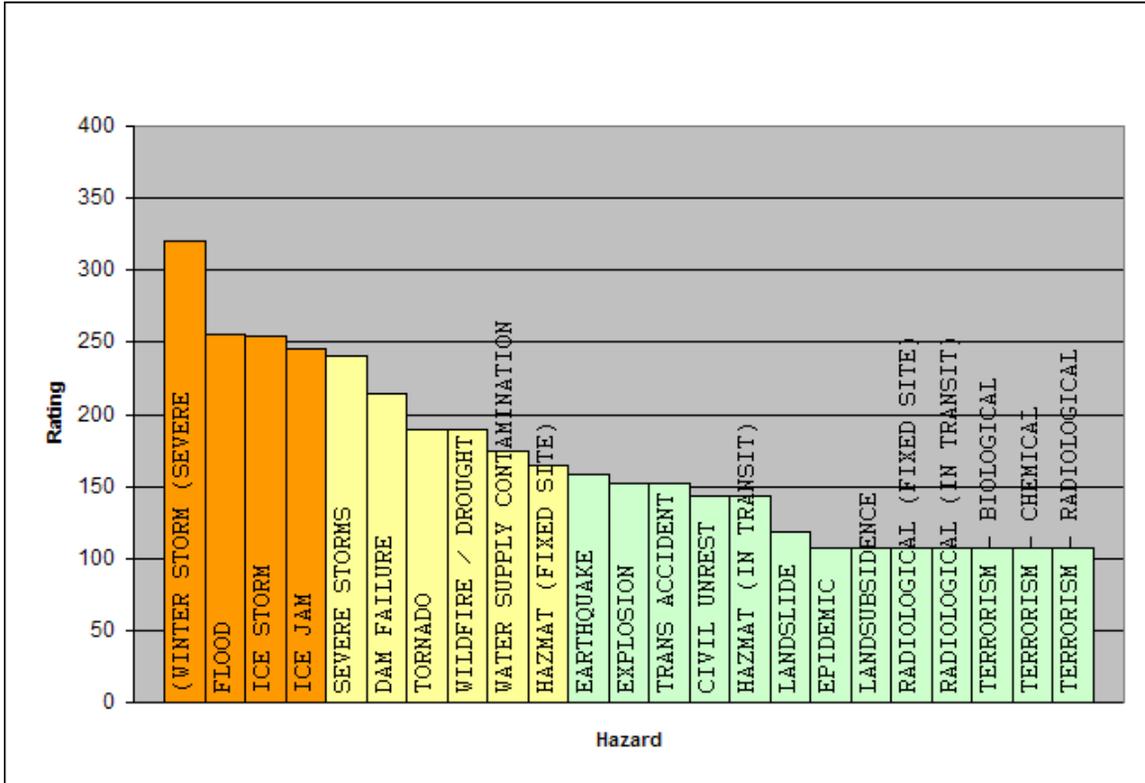
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

WINTER STORM (SEVERE)

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Machias

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																			
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery																
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #s	Injury/Death Large #s	Injury/Death Extreme #s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks		
WINTER STORM (SEVERE)	320																																						
FLOOD	256																																						
ICE STORM	254																																						
ICE JAM	246																																						
SEVERE STORMS	240																																						
DAM FAILURE	214																																						
TORNADO	189																																						
WILDFIRE / DROUGHT	189																																						
WATER SUPPLY CONTAMINATION	174																																						
HAZMAT (FIXED SITE)	164																																						
EARTHQUAKE	158																																						
EXPLOSION	152																																						
TRANS ACCIDENT	152																																						
CIVIL UNREST	143																																						
HAZMAT (IN TRANSIT)	143																																						
LANDSLIDE	119																																						
EPIDEMIC	107																																						
LANDSUBSIDENCE	107																																						
RADIOLOGICAL (FIXED SITE)	107																																						
RADIOLOGICAL (IN TRANSIT)	107																																						
TERRORISM - BIOLOGICAL	107																																						
TERRORISM - CHEMICAL	107																																						
TERRORISM - RADIOLOGICAL	107																																						

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

HAZNY

Background

On **4/14/11**, the Town of Mansfield conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and the Town of Mansfield**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Mansfield completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Mansfield. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
ICE STORM	221
LANDSLIDE	216
WILDFIRE / DROUGHT	200
FLOOD	194
SEVERE STORMS	192
WINTER STORM (SEVERE)	188
TORNADO	172
CIVIL UNREST	107
EARTHQUAKE	107
EPIDEMIC	107
EXPLOSION	107
HAZMAT (FIXED SITE)	107
HAZMAT (IN TRANSIT)	107
TERRORISM-BIOLOGICAL	107
TERRORISM-CHEMICAL	107
TERRORISM-RADIOLOGICAL	107
TRANS ACCIDENT	107
WATER SUPPLY CONTAMINATION	107
ICE JAM	72
LANDSUBSIDENCE	58
DAM FAILURE	44
RADIOLOGICAL (FIXED SITE)	44
RADIOLOGICAL (IN TRANSIT)	44

Hazard(s) rated as moderately low: ICE STORM, LANDSLIDE, WILDFIRE / DROUGHT, FLOOD, SEVERE STORMS, WINTER STORM (SEVERE), TORNADO

ICE STORM: 221, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
- Cascade Effects:** Some Potential
- Frequency:** An Infrequent Event
- Onset:** No Warning
- Hazard Duration:** Two to Three Days
- Recovery Time:** One to Two Weeks
- Impact:**
 - Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSLIDE: 216, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Four days to One Week
Recovery Time: One to Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

WILDFIRE / DROUGHT: 200, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Unlikely
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
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

FLOOD: 194, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Four days to One Week
Recovery Time: One to Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

SEVERE STORMS: 192, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely

Frequency: A Frequent Event
Onset: One Day Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:

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

WINTER STORM (SEVERE): 188, Moderately Low Hazard

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

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

TORNADO: 172, Moderately Low Hazard

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

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

Hazard(s) rated as low: CIVIL UNREST, EARTHQUAKE, EPIDEMIC, EXPLOSION, HAZMAT (FIXED SITE), HAZMAT (IN TRANSIT), TERRORISM-BIOLOGICAL, TERRORISM-CHEMICAL, TERRORISM-RADIOLOGICAL, TRANS ACCIDENT, WATER SUPPLY CONTAMINATION, ICE JAM, LANDSUBSIDENCE, DAM FAILURE, RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT)

CIVIL UNREST: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

EARTHQUAKE: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

EPIDEMIC: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

EXPLOSION: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM-BIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely

Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:

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

TERRORISM-CHEMICAL: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:

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

TERRORISM-RADIOLOGICAL: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:

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

TRANS ACCIDENT: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

WATER SUPPLY CONTAMINATION: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

ICE JAM: 72, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: One Day Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

LANDSUBSIDENCE: 58, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: Several Days Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

DAM FAILURE: 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

ICE STORM
LANDSLIDE
WILDFIRE / DROUGHT
TORNADO
CIVIL UNREST
EARTHQUAKE
EPIDEMIC
EXPLOSION
HAZMAT (FIXED SITE)
HAZMAT (IN TRANSIT)
TERRORISM-BIOLOGICAL
TERRORISM-CHEMICAL
TERRORISM-RADIOLOGICAL
TRANS ACCIDENT
WATER SUPPLY CONTAMINATION

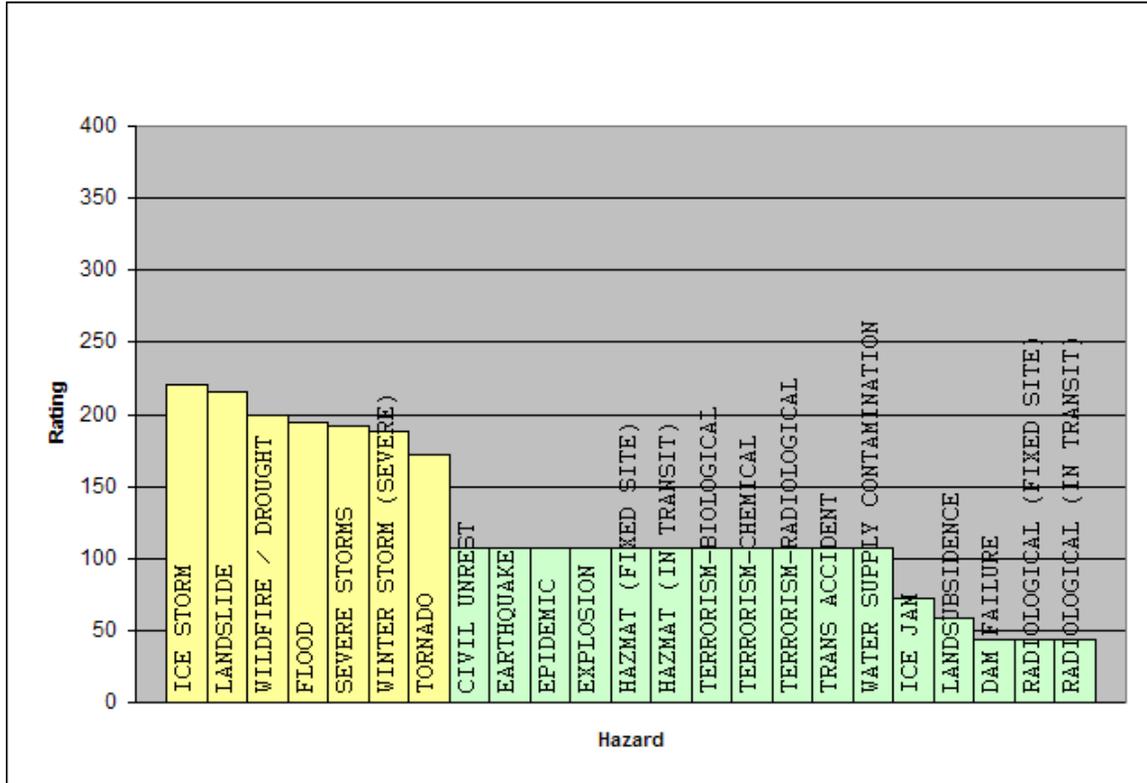
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

SEVERE STORMS

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Mansfield

Hazard	Rating	SCOPE						FREQUENCY				IMPACT						ONSET			DURATION																	
		Potential Area Of Impact			Cascade Effect			Frequency				People		Private Property		Public Facilities		Warning			Hazard			Recovery														
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
ICE STORM	221																																					
LANDSLIDE	216																																					
WILDFIRE / DROUGHT	200																																					
FLOOD	194																																					
SEVERE STORMS	192																																					
WINTER STORM (SEVERE)	188																																					
TORNADO	172																																					
CIVIL UNREST	107																																					
EARTHQUAKE	107																																					
EPIDEMIC	107																																					
EXPLOSION	107																																					
HAZMAT (FIXED SITE)	107																																					
HAZMAT (IN TRANSIT)	107																																					
TERRORISM-BIOLOGICAL	107																																					
TERRORISM-CHEMICAL	107																																					
TERRORISM-RADIOLOGICAL	107																																					
TRANS ACCIDENT	107																																					
WATER SUPPLY CONTAMINATION	107																																					
ICE JAM	72																																					
LANDSUBSIDENCE	58																																					
DAM FAILURE	44																																					
RADIOLOGICAL (FIXED SITE)	44																																					
RADIOLOGICAL (IN TRANSIT)	44																																					

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

HAZNY

Background

On **4/14/11**, the Town of Olean conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and the Town of Olean**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Olean completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Olean. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
EARTHQUAKE	238
EXPLOSION	235
FLOOD	217
ICE JAM	217
ICE STORM	205
SEVERE STORMS	203
WINTER STORM (SEVERE)	202
TORNADO	191
HAZMAT (IN TRANSIT)	189
TERRORISM - RADIOLOGICAL	186
TERRORISM - CHEMICAL	180
RADIOLOGICAL (IN TRANSIT)	174
WILDFIRE / DROUGHT	172
RADIOLOGICAL (FIXED SITE)	170
WATER SUPPLY CONTAMINATION	169
TRANS ACCIDENT	166
TERRORISM-BIOLOGICAL	163
HAZMAT (FIXED SITE)	159
LANDSUBSIDENCE	158
LANDSLIDE	152
EPIDEMIC	132
CIVIL UNREST	107
DAM FAILURE	107

Hazard(s) rated as moderately low: EARTHQUAKE, EXPLOSION, FLOOD, ICE JAM, ICE STORM, SEVERE STORMS, WINTER STORM (SEVERE), TORNADO, HAZMAT (IN TRANSIT), TERRORISM - RADIOLOGICAL, TERRORISM - CHEMICAL, RADIOLOGICAL (IN TRANSIT), WILDFIRE / DROUGHT, RADIOLOGICAL (FIXED SITE), WATER SUPPLY CONTAMINATION, TRANS ACCIDENT, TERRORISM-BIOLOGICAL

EARTHQUAKE: 238, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
- Cascade Effects:** Highly Likely
- Frequency:** A Rare Event
- Onset:** No Warning
- Hazard Duration:** Less Than One Day
- Recovery Time:** Three Days to One Week
- Impact:**
 - Serious Injury or Death to Large Numbers
 - Severe Damage to Private Property
 - Severe Structural Damage to Public Facilities

EXPLOSION: 235, Moderately Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: 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

FLOOD: 217, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: One Day Warning

Hazard Duration: Two to Three Days

Recovery Time: One to Two Weeks

Impact:

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

ICE JAM: 217, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: Several Hours Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

ICE STORM: 205, Moderately Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Likely

Frequency: An Infrequent Event
Onset: One Day Warning
Hazard Duration: More Than One Week
Recovery Time: One to Two Weeks
Impact:

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

SEVERE STORMS: 203, Moderately Low Hazard

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

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

WINTER STORM (SEVERE): 202, Moderately Low Hazard

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

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

TORNADO: 191, Moderately Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: Three Days to One Week

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

HAZMAT (IN TRANSIT): 189, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Highly Likely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

TERRORISM - RADIOLOGICAL: 186, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

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

TERRORISM - CHEMICAL: 180, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: One to Two Weeks

Impact:

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

RADIOLOGICAL (IN TRANSIT): 174, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: One to Two Weeks
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WILDFIRE / DROUGHT: 172, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Four days to One Week
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 170, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
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 is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 169, Moderately Low Hazard

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

Impact:

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

TRANS ACCIDENT: 166, Moderately Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

TERRORISM-BIOLOGICAL: 163, Moderately Low Hazard

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

Hazard(s) rated as low: HAZMAT (FIXED SITE), LANDSUBSIDENCE, LANDSLIDE, CIVIL UNREST, DAM FAILURE

HAZMAT (FIXED SITE): 159, Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:

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

LANDSUBSIDENCE: 158, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:

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

LANDSLIDE: 152, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No 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

CIVIL UNREST: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

DAM FAILURE: 107, Low Hazard

Potential Impact: Single Location

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

EARTHQUAKE
EXPLOSION
HAZMAT (IN TRANSIT)
TERRORISM - RADIOLOGICAL
TERRORISM - CHEMICAL
RADIOLOGICAL (IN TRANSIT)
WILDFIRE / DROUGHT
RADIOLOGICAL (FIXED SITE)
WATER SUPPLY CONTAMINATION
TRANS ACCIDENT
TERRORISM-BIOLOGICAL
HAZMAT (FIXED SITE)
LANDSUBSIDENCE
LANDSLIDE
CIVIL UNREST
DAM FAILURE

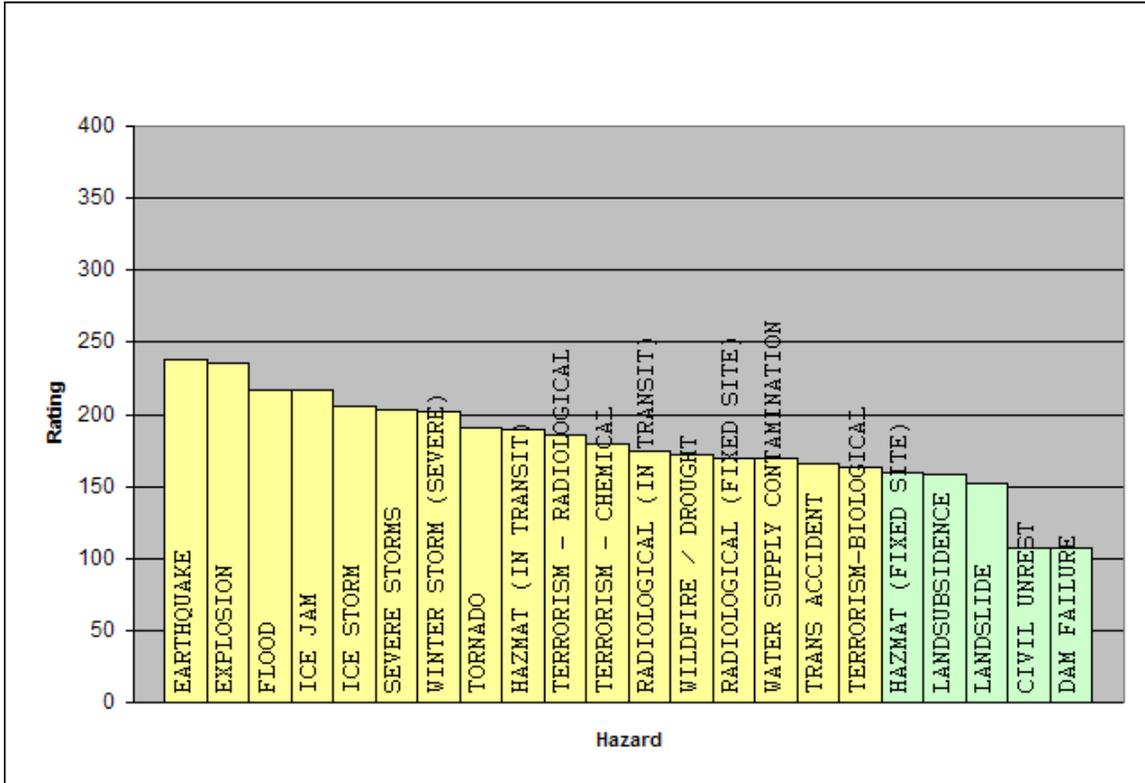
* No warning was selected from the Onset Tab.

HAZARDS THAT PRESENT THE GREATEST THREAT TO LIFE*

EARTHQUAKE

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

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Olean

Hazard	Rating	SCOPE						FREQUENCY				IMPACT						ONSET			DURATION																	
		Potential Area Of Impact			Cascade Effect			Frequency				People		Private Property		Public Facilities		Warning			Hazard		Recovery															
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
EARTHQUAKE	238																																					
EXPLOSION	235																																					
FLOOD	217																																					
ICE JAM	217																																					
ICE STORM	205																																					
SEVERE STORMS	203																																					
WINTER STORM (SEVERE)	202																																					
TORNADO	191																																					
HAZMAT (IN TRANSIT)	189																																					
TERRORISM - RADIOLOGICAL	186																																					
TERRORISM - CHEMICAL	180																																					
RADIOLOGICAL (IN TRANSIT)	174																																					
WILDFIRE / DROUGHT	172																																					
RADIOLOGICAL (FIXED SITE)	170																																					
WATER SUPPLY CONTAMINATION	169																																					
TRANS ACCIDENT	166																																					
TERRORISM-BIOLOGICAL	163																																					
HAZMAT (FIXED SITE)	159																																					
LANDSUBSIDENCE	158																																					
LANDSLIDE	152																																					
CIVIL UNREST	107																																					
DAM FAILURE	107																																					

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

HAZNY

Background

On 4/14/11, the Town of Otto conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Town of Otto

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Otto completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Otto. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
WINTER STORM (SEVERE)	282
LANDSLIDE	273
ICE STORM	246
TORNADO	204
TRANS ACCIDENT	202
WILDFIRE / DROUGHT	201
SEVERE STORMS	186
FLOOD	182
TERRORISM - BIOLOGICAL	161
TERRORISM - CHEMICAL	152
TERRORISM - RADIOLOGICAL	152
WATER SUPPLY CONTAMINATION	143
CIVIL UNREST	107
EARTHQUAKE	107
EPIDEMIC	107
EXPLOSION	107
HAZMAT (FIXED SITE)	107
HAZMAT (IN TRANSIT)	107
LANDSUBSIDENCE	107
RADIOLOGICAL (FIXED SITE)	107
RADIOLOGICAL (IN TRANSIT)	107
ICE JAM	99
DAM FAILURE	44

Hazard(s) rated as moderately high: WINTER STORM (SEVERE), LANDSLIDE, ICE STORM

WINTER STORM (SEVERE): 282, Moderately High Hazard

- Potential Impact:** Throughout a Small Region
- Cascade Effects:** Some Potential
- Frequency:** A Frequent Event
- Onset:** Several Hours Warning
- Hazard Duration:** Four days to One Week
- Recovery Time:** One to 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

LANDSLIDE: 273, Moderately High Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Severe Damage to Private Property
 - Severe Structural Damage to Public Facilities

ICE STORM: 246, Moderately High Hazard

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

Hazard(s) rated as moderately low: TORNADO, TRANS ACCIDENT, WILDFIRE / DROUGHT, SEVERE STORMS, FLOOD

TORNADO: 204, Moderately Low Hazard

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

TRANS ACCIDENT: 202, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WILDFIRE / DROUGHT: 201, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Four days to One Week
Recovery Time: One to Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

SEVERE STORMS: 186, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

FLOOD: 182, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day

Impact:

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

Hazard(s) rated as low: TERRORISM - BIOLOGICAL, TERRORISM - CHEMICAL, TERRORISM - RADIOLOGICAL, WATER SUPPLY CONTAMINATION, CIVIL UNREST, EARTHQUAKE, EPIDEMIC, EXPLOSION, HAZMAT (FIXED SITE), HAZMAT (IN TRANSIT), LANDSUBSIDENCE, RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT), ICE JAM, DAM FAILURE

TERRORISM - BIOLOGICAL: 161, Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week

Impact:

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

TERRORISM - CHEMICAL: 152, Low Hazard

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

Impact:

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

TERRORISM - RADIOLOGICAL: 152, Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

WATER SUPPLY CONTAMINATION: 143, Low Hazard

Potential Impact: Single Location

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: One to Two Days

Impact:

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

CIVIL UNREST: 107, Low Hazard

Potential Impact: Single Location

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

EARTHQUAKE: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

EPIDEMIC: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

EXPLOSION: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

HAZMAT (FIXED SITE): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSUBSIDENCE: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

ICE JAM: 99, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

DAM FAILURE: 44, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

LANDSLIDE
TORNADO
TRANS ACCIDENT
SEVERE STORMS
FLOOD
TERRORISM - BIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - RADIOLOGICAL
WATER SUPPLY CONTAMINATION
CIVIL UNREST
EARTHQUAKE
EPIDEMIC
EXPLOSION
HAZMAT (FIXED SITE)
HAZMAT (IN TRANSIT)
LANDSUBSIDENCE
RADIOLOGICAL (FIXED SITE)
RADIOLOGICAL (IN TRANSIT)

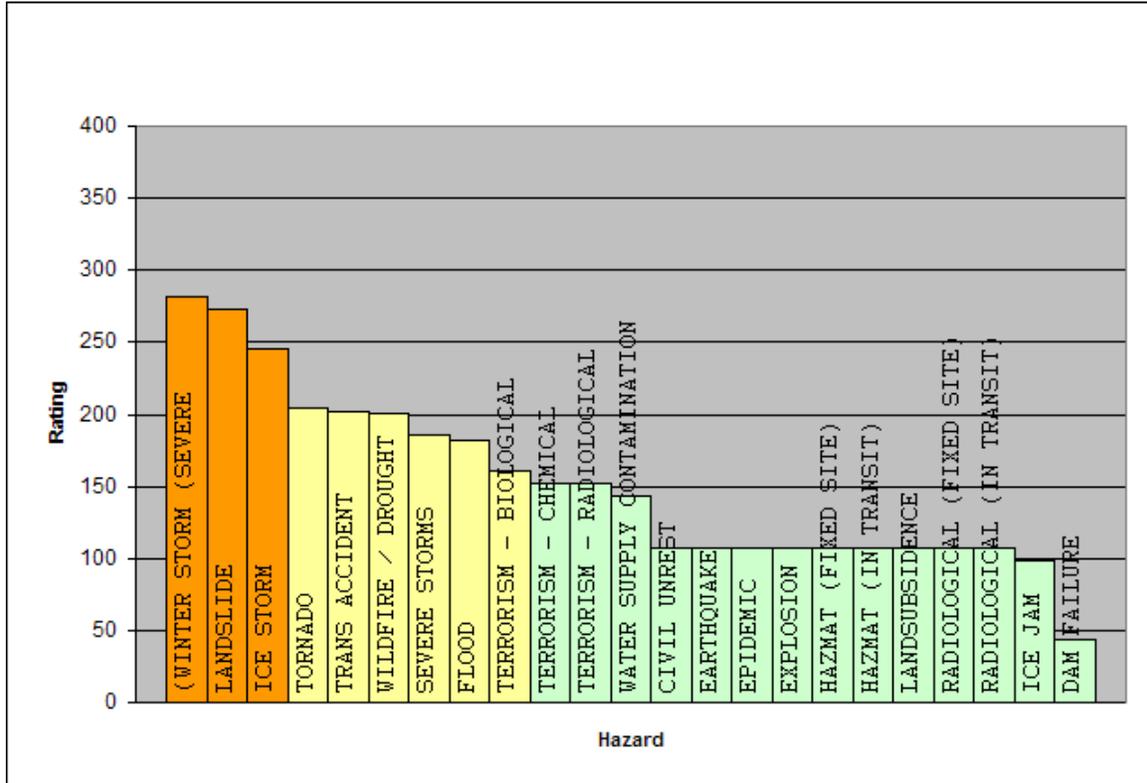
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

WINTER STORM (SEVERE)
ICE STORM

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



HAZNY

Background

On 4/14/11, the Town of Otto conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Town of Otto

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Otto completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Otto. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
WINTER STORM (SEVERE)	282
LANDSLIDE	273
ICE STORM	246
TORNADO	204
TRANS ACCIDENT	202
WILDFIRE / DROUGHT	201
SEVERE STORMS	186
FLOOD	182
TERRORISM - BIOLOGICAL	161
TERRORISM - CHEMICAL	152
TERRORISM - RADIOLOGICAL	152
WATER SUPPLY CONTAMINATION	143
CIVIL UNREST	107
EARTHQUAKE	107
EPIDEMIC	107
EXPLOSION	107
HAZMAT (FIXED SITE)	107
HAZMAT (IN TRANSIT)	107
LANDSUBSIDENCE	107
RADIOLOGICAL (FIXED SITE)	107
RADIOLOGICAL (IN TRANSIT)	107
ICE JAM	99
DAM FAILURE	44

Hazard(s) rated as moderately high: WINTER STORM (SEVERE), LANDSLIDE, ICE STORM

WINTER STORM (SEVERE): 282, Moderately High Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Frequent Event

Onset: Several Hours Warning

Hazard Duration: Four days to One Week

Recovery Time: One to 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

LANDSLIDE: 273, Moderately High Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Severe Damage to Private Property
 - Severe Structural Damage to Public Facilities

ICE STORM: 246, Moderately High Hazard

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

Hazard(s) rated as moderately low: TORNADO, TRANS ACCIDENT, WILDFIRE / DROUGHT, SEVERE STORMS, FLOOD

TORNADO: 204, Moderately Low Hazard

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

TRANS ACCIDENT: 202, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WILDFIRE / DROUGHT: 201, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Four days to One Week
Recovery Time: One to Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

SEVERE STORMS: 186, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

FLOOD: 182, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day

Impact:

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

Hazard(s) rated as low: TERRORISM - BIOLOGICAL, TERRORISM - CHEMICAL, TERRORISM - RADIOLOGICAL, WATER SUPPLY CONTAMINATION, CIVIL UNREST, EARTHQUAKE, EPIDEMIC, EXPLOSION, HAZMAT (FIXED SITE), HAZMAT (IN TRANSIT), LANDSUBSIDENCE, RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT), ICE JAM, DAM FAILURE

TERRORISM - BIOLOGICAL: 161, Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week

Impact:

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

TERRORISM - CHEMICAL: 152, Low Hazard

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

Impact:

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

TERRORISM - RADIOLOGICAL: 152, Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

WATER SUPPLY CONTAMINATION: 143, Low Hazard

Potential Impact: Single Location

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: One to Two Days

Impact:

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

CIVIL UNREST: 107, Low Hazard

Potential Impact: Single Location

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

EARTHQUAKE: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

EPIDEMIC: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

EXPLOSION: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

HAZMAT (FIXED SITE): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSUBSIDENCE: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

ICE JAM: 99, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

DAM FAILURE: 44, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

LANDSLIDE
TORNADO
TRANS ACCIDENT
SEVERE STORMS
FLOOD
TERRORISM - BIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - RADIOLOGICAL
WATER SUPPLY CONTAMINATION
CIVIL UNREST
EARTHQUAKE
EPIDEMIC
EXPLOSION
HAZMAT (FIXED SITE)
HAZMAT (IN TRANSIT)
LANDSUBSIDENCE
RADIOLOGICAL (FIXED SITE)
RADIOLOGICAL (IN TRANSIT)

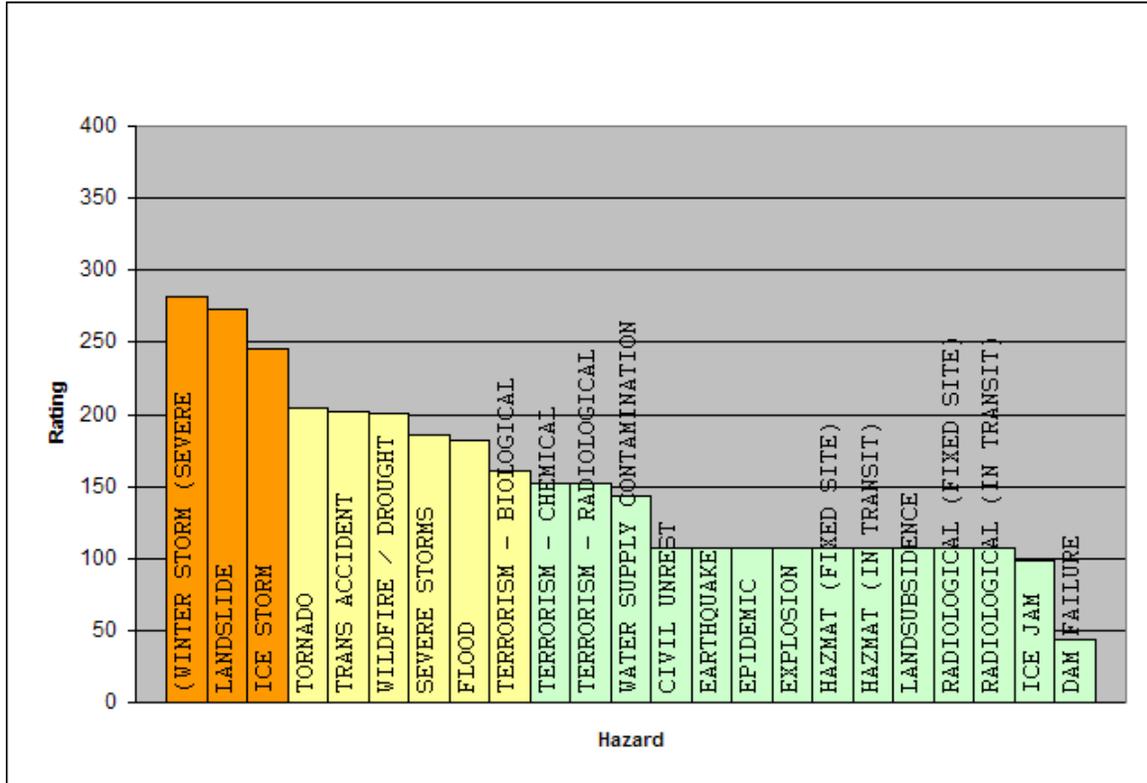
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

WINTER STORM (SEVERE)
ICE STORM

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Otto

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																		
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery															
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
WINTER STORM (SEVERE)	282																																					
LANDSLIDE	273																																					
ICE STORM	246																																					
TORNADO	204																																					
TRANS ACCIDENT	202																																					
WILDFIRE / DROUGHT	201																																					
SEVERE STORMS	186																																					
FLOOD	182																																					
TERRORISM - BIOLOGICAL	161																																					
TERRORISM - CHEMICAL	152																																					
TERRORISM - RADIOLOGICAL	152																																					
WATER SUPPLY CONTAMINATION	143																																					
CIVIL UNREST	107																																					
EARTHQUAKE	107																																					
EPIDEMIC	107																																					
EXPLOSION	107																																					
HAZMAT (FIXED SITE)	107																																					
HAZMAT (IN TRANSIT)	107																																					
LANDSUBSIDENCE	107																																					
RADIOLOGICAL (FIXED SITE)	107																																					
RADIOLOGICAL (IN TRANSIT)	107																																					
ICE JAM	99																																					
DAM FAILURE	44																																					

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

HAZNY

Background

On 4/14/11, the Town of Perrysburg conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Town of Perrysburg

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Perrysburg completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Perrysburg. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
FLOOD	293
SEVERE STORMS	267
WINTER STORM (SEVERE)	257
ICE STORM	236
TRANS ACCIDENT	224
WILDFIRE/DROUGHT	221
HAZMAT (IN TRANSIT)	202
TORNADO	198
EARTHQUAKE	160
LANDSLIDE	151
ICE JAM	150
DAM FAILURE	149
WATER SUPPLY CONTAMINATION	140
EXPLOSION	135
EPIDEMIC	114
CIVIL UNREST	107
TERRORISM-BIOLOGICAL	107
TERRORISM-CHEMICAL	107
TERRORISM-RADIOLOGICAL	107
LANDSUBSIDENCE	58
HAZMAT (FIXED SITE)	44
RADIOLOGICAL (FIXED SITE)	44
RADIOLOGICAL (IN TRANSIT)	44

Hazard(s) rated as moderately high: FLOOD, SEVERE STORMS, WINTER STORM (SEVERE)

FLOOD: 293, Moderately High Hazard

- Potential Impact:** Several Locations
- Cascade Effects:** Highly Likely
- Frequency:** A Frequent Event
- Onset:** Several Hours Warning
- Hazard Duration:** Two to Three Days
- Recovery Time:** More Than Two Weeks
- Impact:**
 - Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Severe Structural Damage to Public Facilities

SEVERE STORMS: 267, Moderately High Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Frequent Event
Onset: Several Hours Warning
Hazard Duration: One Day
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

WINTER STORM (SEVERE): 257, Moderately High Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Highly Likely
Frequency: A Frequent Event
Onset: Several Hours Warning
Hazard Duration: Two to Three Days
Recovery Time: One to Two Weeks
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Hazard(s) rated as moderately low: ICE STORM, TRANS ACCIDENT, WILDFIRE/DROUGHT, HAZMAT (IN TRANSIT), TORNADO

ICE STORM: 236, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Highly Likely
Frequency: A Frequent Event
Onset: Several Hours Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TRANS ACCIDENT: 224, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Frequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WILDFIRE/DROUGHT: 221, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Frequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 202, Moderately Low Hazard

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

TORNADO: 198, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential

Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: 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

Hazard(s) rated as low: EARTHQUAKE, LANDSLIDE, ICE JAM, DAM FAILURE, WATER SUPPLY CONTAMINATION, EXPLOSION, EPIDEMIC, CIVIL UNREST, TERRORISM-BIOLOGICAL, TERRORISM-CHEMICAL, TERRORISM-RADIOLOGICAL, LANDSUBSIDENCE, HAZMAT (FIXED SITE), RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT)

EARTHQUAKE: 160, Low Hazard

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

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

LANDSLIDE: 151, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: More Than Two Weeks
Impact:

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

ICE JAM: 150, Low Hazard

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

Impact:

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

DAM FAILURE: 149, Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

WATER SUPPLY CONTAMINATION: 140, Low Hazard

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

Impact:

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

EXPLOSION: 135, Low Hazard

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

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EPIDEMIC: 114, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: One Day Warning
Hazard Duration: Two to Three Days
Recovery Time: One to Two Weeks

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

CIVIL UNREST: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM-BIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM-CHEMICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM-RADIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSUBSIDENCE: 58, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: Several Days Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 44, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

TRANS ACCIDENT
WILDFIRE/DROUGHT
HAZMAT (IN TRANSIT)
EARTHQUAKE
LANDSLIDE
DAM FAILURE
WATER SUPPLY CONTAMINATION
EXPLOSION
CIVIL UNREST
TERRORISM-BIOLOGICAL
TERRORISM-CHEMICAL
TERRORISM-RADIOLOGICAL

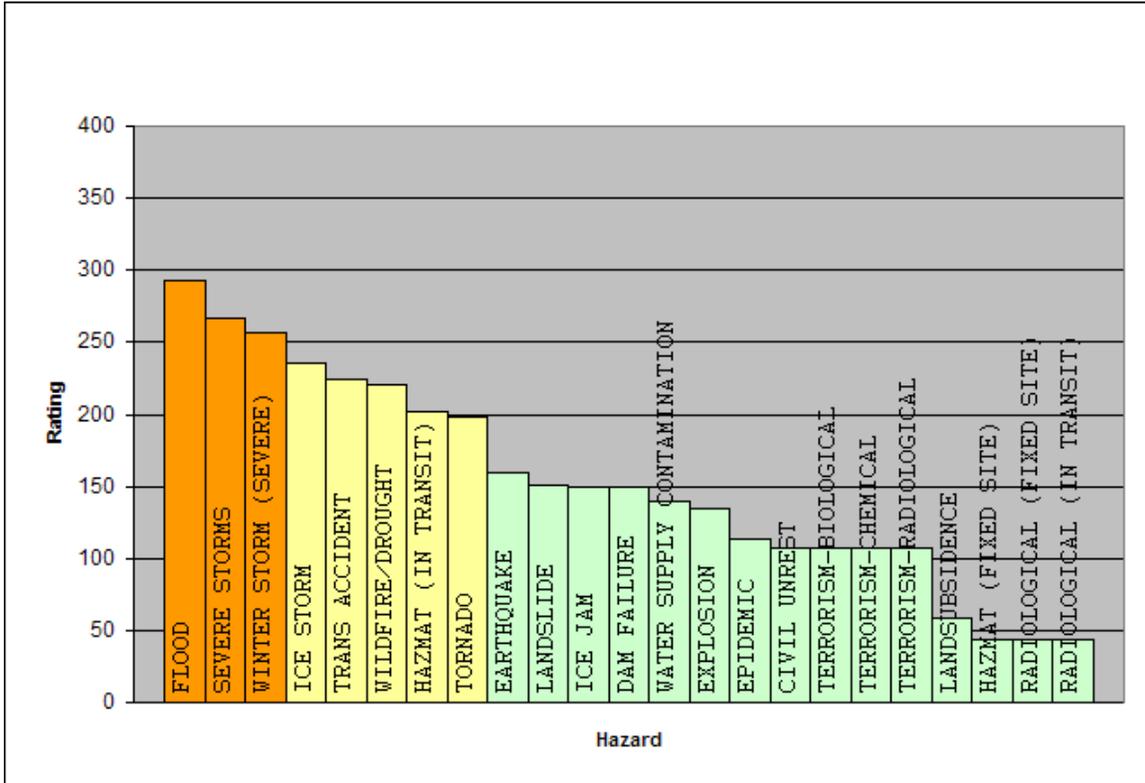
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

FLOOD
SEVERE STORMS
WINTER STORM (SEVERE)
ICE STORM
TRANS ACCIDENT
WILDFIRE/DROUGHT

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Perrysburg

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																		
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery															
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
FLOOD	293																																					
SEVERE STORMS	267																																					
WINTER STORM (SEVERE)	257																																					
ICE STORM	236																																					
TRANS ACCIDENT	224																																					
WILDFIRE/DROUGHT	221																																					
HAZMAT (IN TRANSIT)	202																																					
TORNADO	198																																					
EARTHQUAKE	160																																					
LANDSLIDE	151																																					
ICE JAM	150																																					
DAM FAILURE	149																																					
WATER SUPPLY CONTAMINATION	140																																					
EXPLOSION	135																																					
EPIDEMIC	114																																					
CIVIL UNREST	107																																					
TERRORISM-BIOLOGICAL	107																																					
TERRORISM-CHEMICAL	107																																					
TERRORISM-RADIOLOGICAL	107																																					
LANDSUBSIDENCE	58																																					
HAZMAT (FIXED SITE)	44																																					
RADIOLOGICAL (FIXED SITE)	44																																					
RADIOLOGICAL (IN TRANSIT)	44																																					

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

HAZNY

Background

On 4/14/11, the Town of Persia conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Town of Persia

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Persia completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Persia. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
TERRORISM - BIOLOGICAL	285
TERRORISM - RADIOLOGICAL	285
FLOOD	278
SEVERE STORMS	274
TERRORISM - CHEMICAL	269
ICE STORM	249
LANDSLIDE	240
TORNADO	240
WINTER STORM (SEVERE)	238
WILDFIRE / DROUGHT	230
RADIOLOGICAL (IN TRANSIT)	214
LANDSUBSIDENCE	212
ICE JAM	210
DAM FAILURE	208
HAZMAT (IN TRANSIT)	196
RADIOLOGICAL (FIXED SITE)	194
EARTHQUAKE	183
HAZMAT (FIXED SITE)	168
WATER SUPPLY CONTAMINATION	158
TRANS ACCIDENT	155
EXPLOSION	146
EPIDEMIC	136
CIVIL UNREST	79

Hazard(s) rated as moderately high: TERRORISM - BIOLOGICAL, TERRORISM - RADIOLOGICAL, FLOOD, SEVERE STORMS, TERRORISM - CHEMICAL, ICE STORM

TERRORISM - BIOLOGICAL: 285, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
- Cascade Effects:** Some Potential
- Frequency:** A Rare Event
- Onset:** No Warning
- Hazard Duration:** More Than One Week
- Recovery Time:** More Than Two Weeks
- Impact:**
 - Serious Injury or Death to Extremely Large Numbers
 - Severe Damage to Private Property
 - Severe Structural Damage to Public Facilities

TERRORISM - RADIOLOGICAL: 285, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks
Impact:
- Serious Injury or Death to Extremely Large Numbers
 - Severe Damage to Private Property
 - Severe Structural Damage to Public Facilities

FLOOD: 278, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: An Infrequent Event
Onset: Several Hours 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
 - Severe Structural Damage to Public Facilities

SEVERE STORMS: 274, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: Several Hours 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

TERRORISM - CHEMICAL: 269, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential

Frequency: A Rare Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks

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

ICE STORM: 249, Moderately High Hazard

Potential Impact: Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: An Infrequent Event
Onset: 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
 - Severe Damage to Private Property
 - Moderate Structural Damage to Public Facilities

Hazard(s) rated as moderately low: LANDSLIDE, TORNADO, WINTER STORM (SEVERE), WILDFIRE / DROUGHT, RADIOLOGICAL (IN TRANSIT), LADSUBSIDENCE, ICE JAM, DAM FAILURE, HAZMAT (IN TRANSIT), RADIOLOGICAL (FIXED SITE), EARTHQUAKE, HAZMAT (FIXED SITE)

LANDSLIDE: 240, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: More Than One Week
Recovery Time: More Than Two Weeks

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

TORNADO: 240, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

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
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

WINTER STORM (SEVERE): 238, Moderately Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: An Infrequent Event

Onset: Several Hours 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

WILDFIRE / DROUGHT: 230, Moderately Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Unlikely

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

RADIOLOGICAL (IN TRANSIT): 214, Moderately Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Rare 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
 - Little or No Structural Damage to Public Facilities

LANDSUBSIDENCE: 212, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: More Than Two Weeks

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

ICE JAM: 210, Moderately Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Four days to One Week
Recovery Time: One to 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

DAM FAILURE: 208, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No 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
- Severe Damage to Private Property
- Moderate Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 196, Moderately Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

RADIOLOGICAL (FIXED SITE): 194, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Rare 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
- Little or No Structural Damage to Public Facilities

EARTHQUAKE: 183, Moderately Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: One to Two Days

Impact:

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

HAZMAT (FIXED SITE): 168, Moderately Low Hazard

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

Impact:

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

Hazard(s) rated as low: WATER SUPPLY CONTAMINATION, TRANS ACCIDENT, EXPLOSION, EPIDEMIC, CIVIL UNREST

WATER SUPPLY CONTAMINATION: 158, Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: One Day 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
- Little or No Damage to Private Property
- Little or No Structural Damage to Public Facilities

TRANS ACCIDENT: 155, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

EXPLOSION: 146, Low Hazard

Potential Impact: Several Locations

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: One to Two Days

Impact:

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

EPIDEMIC: 136, Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Highly Unlikely

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

CIVIL UNREST: 79, Low Hazard

Potential Impact: Single Location

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: Several Days Warning

Hazard Duration: Four days to One Week

Recovery Time: Less Than One Day

Impact:

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

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

TERRORISM - BIOLOGICAL
TERRORISM - RADIOLOGICAL
TERRORISM - CHEMICAL
LANDSLIDE
TORNADO
WILDFIRE / DROUGHT
RADIOLOGICAL (IN TRANSIT)
LANDSUBSIDENCE
DAM FAILURE
HAZMAT (IN TRANSIT)
RADIOLOGICAL (FIXED SITE)
EARTHQUAKE
HAZMAT (FIXED SITE)
TRANS ACCIDENT
EXPLOSION

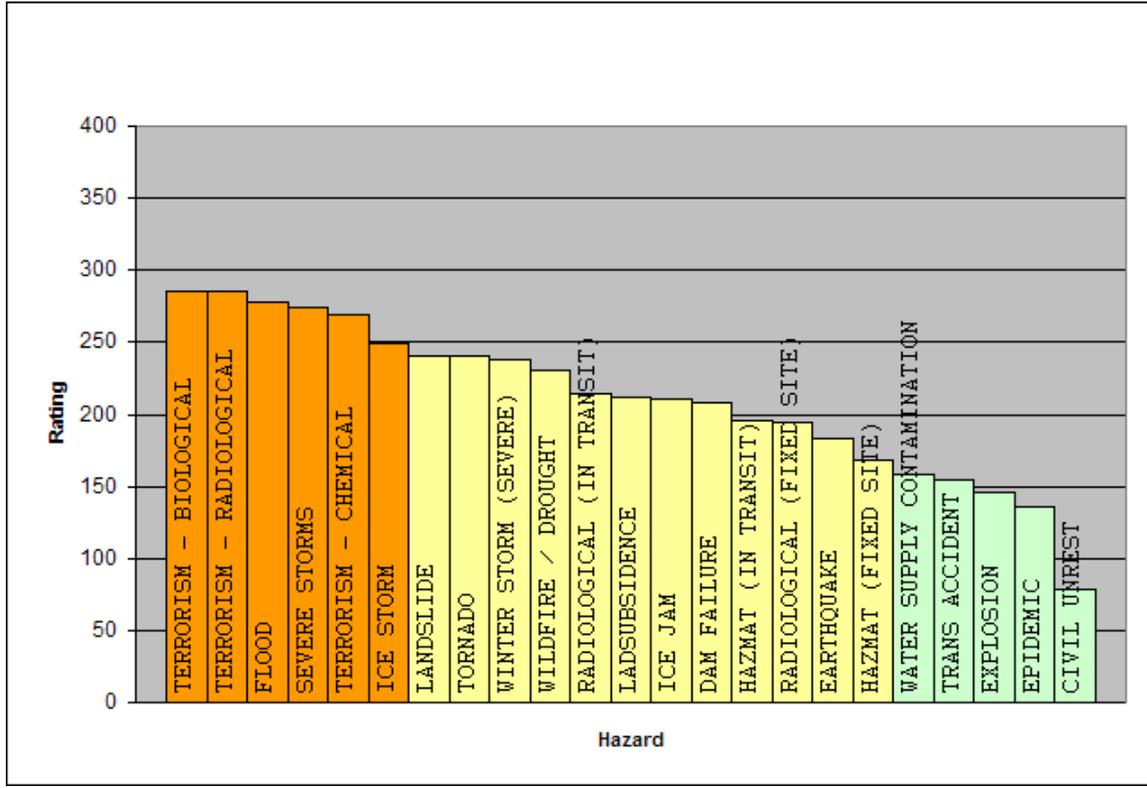
* No warning was selected from the Onset Tab.

HAZARDS THAT PRESENT THE GREATEST THREAT TO LIFE*

TERRORISM - BIOLOGICAL
TERRORISM - RADIOLOGICAL
TERRORISM - CHEMICAL

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

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Persia

Hazard	Rating	SCOPE			FREQUENCY				IMPACT						ONSET			DURATION																					
		Potential Area Of Impact		Cascade Effect	Frequency				People		Private Property	Public Facilities		Warning			Hazard		Recovery																				
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks		
TERRORISM - BIOLOGICAL	285																																						
TERRORISM - RADIOLOGICAL	285																																						
FLOOD	278																																						
SEVERE STORMS	274																																						
TERRORISM - CHEMICAL	269																																						
ICE STORM	249																																						
LANDSLIDE	240																																						
TORNADO	240																																						
WINTER STORM (SEVERE)	238																																						
WILDFIRE / DROUGHT	230																																						
RADIOLOGICAL (IN TRANSIT)	214																																						
LADSUBSIDENCE	212																																						
ICE JAM	210																																						
DAM FAILURE	208																																						
HAZMAT (IN TRANSIT)	196																																						
RADIOLOGICAL (FIXED SITE)	194																																						
EARTHQUAKE	183																																						
HAZMAT (FIXED SITE)	168																																						
WATER SUPPLY CONTAMINATION	158																																						
TRANS ACCIDENT	155																																						
EXPLOSION	146																																						
EPIDEMIC	136																																						
CIVIL UNREST	79																																						

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

HAZNY

Background

On 4/14/11, the Town of South Valley conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and the Town of South Valley**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of South Valley completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of South Valley. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 24 hazards as follows:

Hazard	Rating
FLOOD	265
SEVERE STORMS	233
WINTER STORM (SEVERE)	225
ICE STORM	212
ICE JAM	198
HAZMAT (IN TRANSIT)	182
TERRORISM CHEMICAL	182
DAM FAILURE	177
WILDFIRE/DROUGHT	176
EXPLOSION	174
LANDSLIDE	172
TORNADO	162
TRANS ACCIDENT	154
WATER SUPPLY CONTAMINATION	152
TERRORISM BIOLOGICAL	151
EPIDEMIC	139
LANDSUBSIDENCE	130
PIPELINE	130
CIVIL UNREST	124
EARTHQUAKE	107
HAZMAT (FIXED SITE)	107
TERRORISM-RADIOLOGICAL	107
RADIOLOGICAL (FIXED SITE)	44
RADIOLOGICAL (IN TRANSIT)	44

Hazard(s) rated as moderately high: FLOOD

FLOOD: 265, Moderately High Hazard

- Potential Impact:** Single Location
- Cascade Effects:** Some Potential
- Frequency:** A Regular Event
- Onset:** No Warning
- Hazard Duration:** Two to Three Days
- Recovery Time:** One to Two Days
- Impact:**

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

Hazard(s) rated as moderately low: SEVERE STORMS, WINTER STORM (SEVERE), ICE STORM, ICE JAM, HAZMAT (IN TRANSIT), TERRORISM CHEMICAL, DAM FAILURE, WILDFIRE/DROUGHT, EXPLOSION, LANDSLIDE, TORNADO

SEVERE STORMS: 233, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

WINTER STORM (SEVERE): 225, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Highly Likely

Frequency: A Regular Event

Onset: Several Hours Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

ICE STORM: 212, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: Several Hours Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

ICE JAM: 198, Moderately Low Hazard

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

Impact:

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

HAZMAT (IN TRANSIT): 182, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days

Impact:

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

TERRORISM CHEMICAL: 182, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

DAM FAILURE: 177, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Likely
Frequency: A Rare Event
Onset: One Day Warning
Hazard Duration: Two to Three Days
Recovery Time: 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

WILDFIRE/DROUGHT: 176, Moderately Low Hazard

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

Impact:

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

EXPLOSION: 174, Moderately Low Hazard

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

Impact:

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

LANDSLIDE: 172, Moderately Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

TORNADO: 162, Moderately Low Hazard

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

Hazard(s) rated as low: TRANS ACCIDENT, WATER SUPPLY CONTAMINATION, TERRORISM BIOLOGICAL, EPIDEMIC, LANDSUBSIDENCE, PIPELINE, CIVIL UNREST, EARTHQUAKE, HAZMAT (FIXED SITE), TERRORISM-RADIOLOGICAL, RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT)

TRANS ACCIDENT: 154, Low Hazard

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

WATER SUPPLY CONTAMINATION: 152, Low Hazard

- Potential Impact:** Single Location
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 is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM BIOLOGICAL: 151, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

EPIDEMIC: 139, Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSUBSIDENCE: 130, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

PIPELINE: 130, Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

CIVIL UNREST: 124, Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

EARTHQUAKE: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

HAZMAT (FIXED SITE): 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM-RADIOLOGICAL: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

RADIOLOGICAL (FIXED SITE): 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 44, Low Hazard

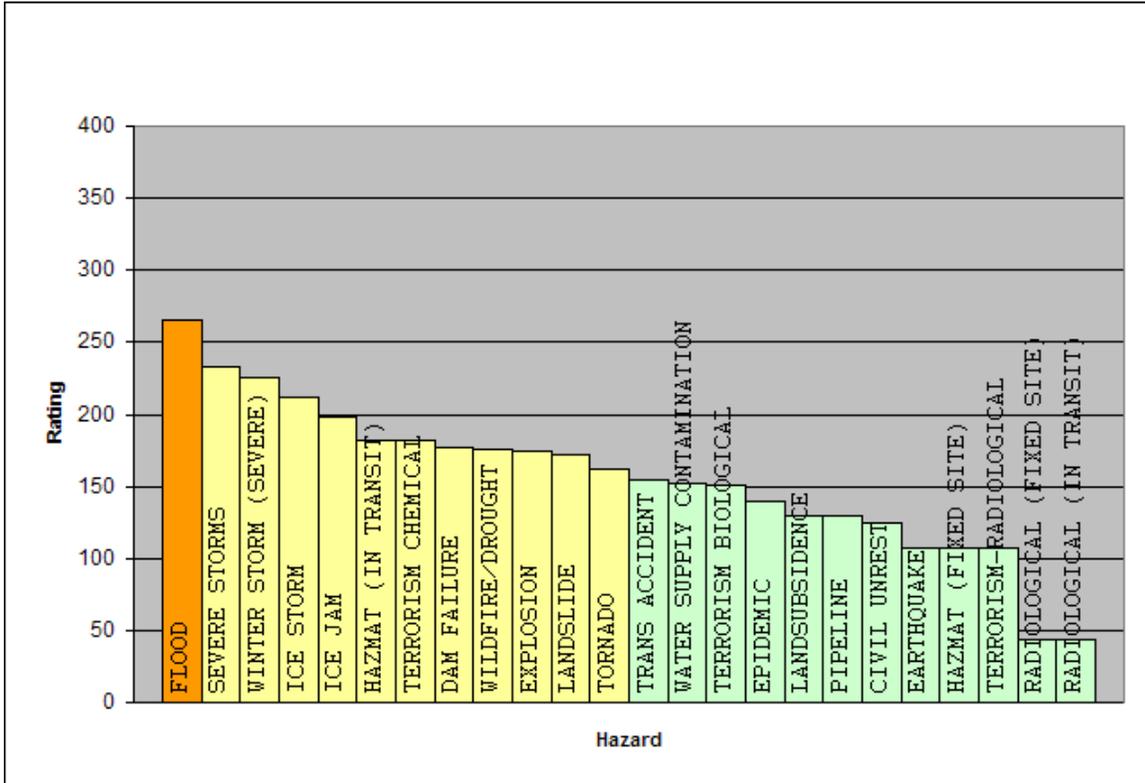
- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*
FLOOD
SEVERE STORMS
HAZMAT (IN TRANSIT)
TERRORISM CHEMICAL
EXPLOSION
LANDSLIDE
TERRORISM BIOLOGICAL
EPIDEMIC
LANDSUBSIDENCE
CIVIL UNREST
EARTHQUAKE
HAZMAT (FIXED SITE)
TERRORISM-RADIOLOGICAL

* No warning was selected from the Onset Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of South Valley

Hazard	Rating	SCOPE						FREQUENCY				IMPACT						ONSET			DURATION																	
		Potential Area Of Impact			Cascade Effect			Frequency				People		Private Property		Public Facilities		Warning			Hazard		Recovery															
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
FLOOD	265																																					
SEVERE STORMS	233																																					
WINTER STORM (SEVERE)	225																																					
ICE STORM	212																																					
ICE JAM	198																																					
HAZMAT (IN TRANSIT)	182																																					
TERRORISM CHEMICAL	182																																					
DAM FAILURE	177																																					
WILDFIRE/DROUGHT	176																																					
EXPLOSION	174																																					
LANDSLIDE	172																																					
TORNADO	162																																					
TRANS ACCIDENT	154																																					
WATER SUPPLY CONTAMINATION	152																																					
TERRORISM BIOLOGICAL	151																																					
EPIDEMIC	139																																					
LANDSUBSIDENCE	130																																					
PIPELINE	130																																					
CIVIL UNREST	124																																					
EARTHQUAKE	107																																					
HAZMAT (FIXED SITE)	107																																					
TERRORISM-RADIOLOGICAL	107																																					
RADIOLOGICAL (FIXED SITE)	44																																					
RADIOLOGICAL (IN TRANSIT)	44																																					

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

HAZNY

Background

On 4/14/11, the Town of Yorkshire conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Town of Yorkshire

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Town of Yorkshire completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Town of Yorkshire. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
FLOOD	275
WINTER STORM (SEVERE)	253
LANDSLIDE	239
ICE STORM	234
SEVERE STORMS	224
WATER SUPPLY CONTAMINATION	203
TORNADO	197
TRANS ACCIDENT	192
LANDSUBSIDENCE	151
ICE JAM	126
TERRORISM - RADIOLOGICAL	124
WILDFIRE / DROUGHT	124
TERRORISM - BIOLOGICAL	116
TERRORISM - CHEMICAL	116
CIVIL UNREST	107
DAM FAILURE	107
EARTHQUAKE	107
EPIDEMIC	107
EXPLOSION	107
HAZMAT (FIXED SITE)	107
HAZMAT (IN TRANSIT)	107
RADIOLOGICAL (FIXED SITE)	107
RADIOLOGICAL (IN TRANSIT)	107

Hazard(s) rated as moderately high: FLOOD, WINTER STORM (SEVERE)

FLOOD: 275, Moderately High Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Regular 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

WINTER STORM (SEVERE): 253, Moderately High Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Frequent Event

Onset: Several Hours Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

Hazard(s) rated as moderately low: LANDSLIDE, ICE STORM, SEVERE STORMS, WATER SUPPLY CONTAMINATION, TORNADO, TRANS ACCIDENT

LANDSLIDE: 239, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: An Infrequent Event

Onset: No Warning

Hazard Duration: More Than One Week

Recovery Time: More Than Two Weeks

Impact:

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

ICE STORM: 234, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Frequent Event

Onset: Several Hours Warning

Hazard Duration: One Day

Recovery Time: Less Than One Day

Impact:

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

SEVERE STORMS: 224, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: Several Hours Warning

Hazard Duration: One Day

Recovery Time: Three Days to One Week

Impact:

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

WATER SUPPLY CONTAMINATION: 203, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Rare 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

TORNADO: 197, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: An Infrequent Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Three Days to One Week

Impact:

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

TRANS ACCIDENT: 192, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

Hazard(s) rated as low: LANDSUBSIDENCE, ICE JAM, TERRORISM - RADIOLOGICAL, WILDFIRE / DROUGHT, TERRORISM - BIOLOGICAL, TERRORISM - CHEMICAL, CIVIL UNREST, DAM FAILURE, EARTHQUAKE, EPIDEMIC, EXPLOSION, HAZMAT (FIXED SITE), HAZMAT (IN TRANSIT), RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT)

LANDSUBSIDENCE: 151, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE JAM: 126, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - RADIOLOGICAL: 124, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WILDFIRE / DROUGHT: 124, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

TERRORISM - BIOLOGICAL: 116, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM - CHEMICAL: 116, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

CIVIL UNREST: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

DAM FAILURE: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

EARTHQUAKE: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EPIDEMIC: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EXPLOSION: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

FLOOD
LANDSLIDE
WATER SUPPLY CONTAMINATION
TORNADO
TRANS ACCIDENT
LANDSUBSIDENCE
ICE JAM
TERRORISM - RADIOLOGICAL
WILDFIRE / DROUGHT
TERRORISM - BIOLOGICAL
TERRORISM - CHEMICAL
CIVIL UNREST
DAM FAILURE
EARTHQUAKE
EPIDEMIC
EXPLOSION
HAZMAT (FIXED SITE)
HAZMAT (IN TRANSIT)
RADIOLOGICAL (FIXED SITE)
RADIOLOGICAL (IN TRANSIT)

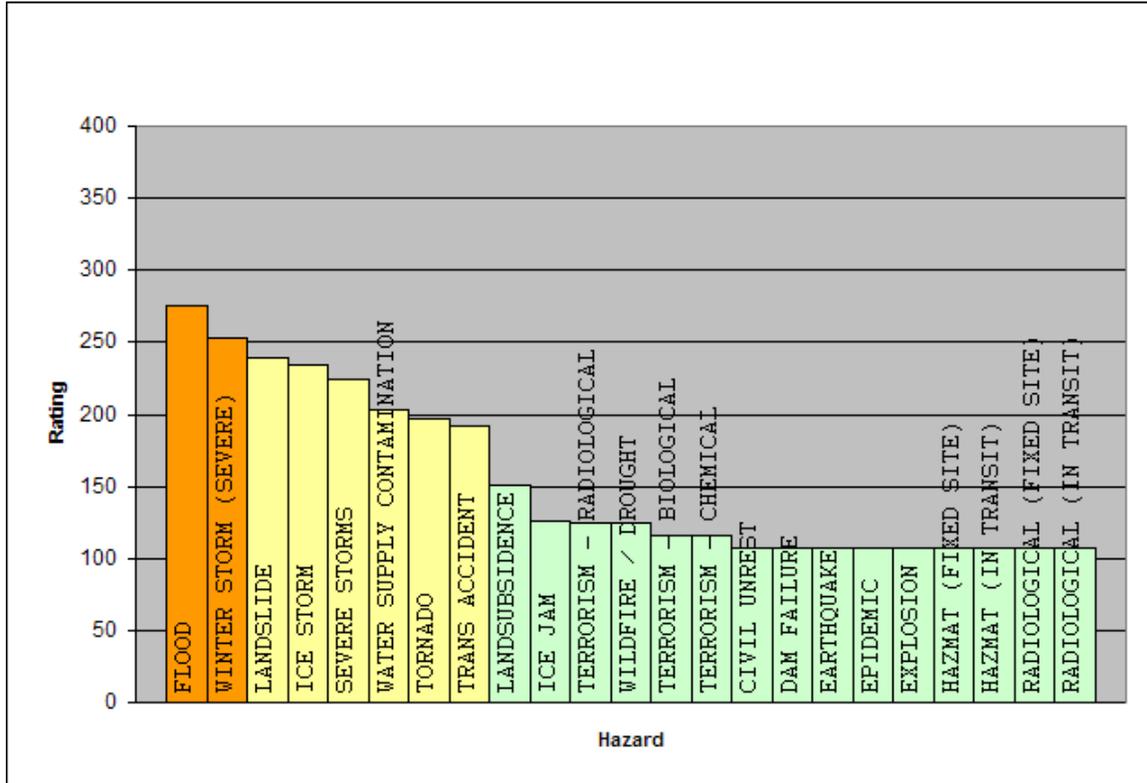
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

WINTER STORM (SEVERE)
ICE STORM

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Town of Yorkshire

Hazard	Rating	SCOPE						FREQUENCY				IMPACT						ONSET			DURATION																	
		Potential Area Of Impact			Cascade Effect			Frequency				People		Private Property		Public Facilities		Warning			Hazard			Recovery														
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
FLOOD	275																																					
WINTER STORM (SEVERE)	253																																					
LANDSLIDE	239																																					
ICE STORM	234																																					
SEVERE STORMS	224																																					
WATER SUPPLY CONTAMINATION	203																																					
TORNADO	197																																					
TRANS ACCIDENT	192																																					
LANDSUBSIDENCE	151																																					
ICE JAM	126																																					
TERRORISM - RADIOLOGICAL	124																																					
WILDFIRE / DROUGHT	124																																					
TERRORISM - BIOLOGICAL	116																																					
TERRORISM - CHEMICAL	116																																					
CIVIL UNREST	107																																					
DAM FAILURE	107																																					
EARTHQUAKE	107																																					
EPIDEMIC	107																																					
EXPLOSION	107																																					
HAZMAT (FIXED SITE)	107																																					
HAZMAT (IN TRANSIT)	107																																					
RADIOLOGICAL (FIXED SITE)	107																																					
RADIOLOGICAL (IN TRANSIT)	107																																					

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

HAZNY

Background

On 4/14/11, the Village of Cattaraugus conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Village of Cattaraugus

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Village of Cattaraugus completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Village of Cattaraugus. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
LANDSLIDE	316
WINTER STORM (SEVERE)	282
SEVERE STORMS	278
TERRORISM-CHEMICAL	211
FLOOD	201
TERRORISM-RADIOLOGICAL	194
TERRORISM-BIOLOGICAL	186
LANDSUBSIDENCE	160
ICE STORM	158
TORNADO	147
WATER SUPPLY CONTAMINATION	130
WILDFIRE / DROUGHT	130
CIVIL UNREST	117
ICE JAM	117
EARTHQUAKE	107
EPIDEMIC	107
EXPLOSION	107
HAZMAT (IN TRANSIT)	107
TRANS ACCIDENT	107
HAZMAT (FIXED SITE)	54
DAM FAILURE	44
RADIOLOGICAL (FIXED SITE)	44
RADIOLOGICAL (IN TRANSIT)	44

Hazard(s) rated as moderately high: LANDSLIDE, WINTER STORM (SEVERE), SEVERE STORMS

LANDSLIDE: 316, Moderately High Hazard

- Potential Impact:** Several Locations
- Cascade Effects:** Highly Likely
- Frequency:** A Frequent Event
- Onset:** No Warning
- Hazard Duration:** More Than One Week
- Recovery Time:** Less Than One Day
- Impact:**
 - Serious Injury or Death Unlikely
 - Severe Damage to Private Property
 - Severe Structural Damage to Public Facilities

WINTER STORM (SEVERE): 282, Moderately High Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Frequent Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

SEVERE STORMS: 278, Moderately High Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Highly Likely
Frequency: A Frequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Severe Damage to Private Property
 - Moderate Structural Damage to Public Facilities

Hazard(s) rated as moderately low: TERRORISM-CHEMICAL, FLOOD, TERRORISM-RADIOLOGICAL, TERRORISM-BIOLOGICAL

TERRORISM-CHEMICAL: 211, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Rare 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
 - Little or No Damage to Private Property
 - Severe Structural Damage to Public Facilities

FLOOD: 201, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

TERRORISM-RADIOLOGICAL: 194, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Rare 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
 - Little or No Damage to Private Property
 - Moderate Structural Damage to Public Facilities

TERRORISM-BIOLOGICAL: 186, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Rare 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
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Hazard(s) rated as low: LANDSUBSIDENCE, ICE STORM, TORNADO, WATER SUPPLY CONTAMINATION, WILDFIRE / DROUGHT, CIVIL UNREST, ICE JAM, EARTHQUAKE, EPIDEMIC, EXPLOSION, HAZMAT (IN TRANSIT),

**TRANS ACCIDENT, HAZMAT (FIXED SITE), DAM FAILURE,
RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT)**

LANDSUBSIDENCE: 160, Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

ICE STORM: 158, Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TORNADO: 147, Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 130, Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WILDFIRE / DROUGHT: 130, Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

CIVIL UNREST: 117, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

ICE JAM: 117, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EARTHQUAKE: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EPIDEMIC: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EXPLOSION: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TRANS ACCIDENT: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 54, Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

DAM FAILURE: 44, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 44, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

LANDSLIDE
WINTER STORM (SEVERE)
SEVERE STORMS
TERRORISM-CHEMICAL
FLOOD
TERRORISM-RADIOLOGICAL
TERRORISM-BIOLOGICAL
LANDSUBSIDENCE
ICE STORM
TORNADO
WATER SUPPLY CONTAMINATION
WILDFIRE / DROUGHT
CIVIL UNREST
ICE JAM
EARTHQUAKE
EPIDEMIC
EXPLOSION
HAZMAT (IN TRANSIT)
TRANS ACCIDENT

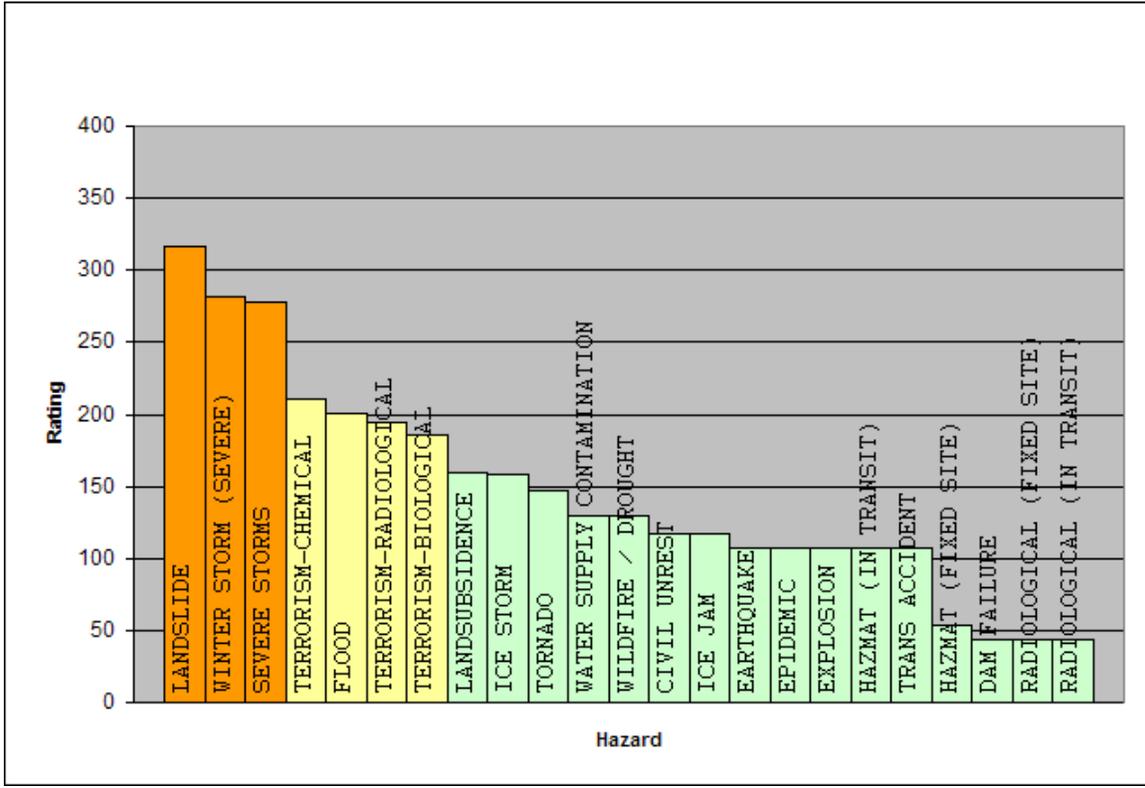
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

LANDSLIDE
WINTER STORM (SEVERE)
SEVERE STORMS

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Village of Cattaraugus

Hazard	Rating	SCOPE			FREQUENCY				IMPACT				ONSET			DURATION																						
		Potential Area Of Impact		Cascade Effect	Frequency				People		Private Property	Public Facilities	Warning			Hazard		Recovery																				
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #s	Injury/Death Large #s	Injury/Death Extreme #s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
LANDSLIDE	316																																					
WINTER STORM (SEVERE)	282																																					
SEVERE STORMS	278																																					
TERRORISM-CHEMICAL	211																																					
FLOOD	201																																					
TERRORISM-RADIOLOGICAL	194																																					
TERRORISM-BIOLOGICAL	186																																					
LANDSUBSIDENCE	160																																					
ICE STORM	158																																					
TORNADO	147																																					
WATER SUPPLY CONTAMINATION	130																																					
WILDFIRE / DROUGHT	130																																					
CIVIL UNREST	117																																					
ICE JAM	117																																					
EARTHQUAKE	107																																					
EPIDEMIC	107																																					
EXPLOSION	107																																					
HAZMAT (IN TRANSIT)	107																																					
TRANS ACCIDENT	107																																					
HAZMAT (FIXED SITE)	54																																					
DAM FAILURE	44																																					
RADIOLOGICAL (FIXED SITE)	44																																					
RADIOLOGICAL (IN TRANSIT)	44																																					

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

HAZNY

Background

On 4/14/11, the Village of Delevan conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Village of Delevan

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Village of Delevan completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Village of Delevan. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
WINTER STORM (SEVERE)	300
LANDSUBSIDENCE	284
ICE STORM	276
FLOOD	258
SEVERE STORMS	242
DAM FAILURE	231
TRANS ACCIDENT	225
TORNADO	220
HAZMAT (IN TRANSIT)	210
WILDFIE / DROUGHT	165
ICE JAM	164
EPIDEMIC	152
EXPLOSION	140
LANDSLIDE	139
WATER SUPPLY CONTAMINATION	139
HAZMAT (FIXED SITE)	132
EARTHQUAKE	130
RADIOLOGICAL (IN TRANSIT)	124
TERRORISM-CHEMICAL	117
TERRORISM-BIOLOGICAL	107
TERRORISM-RADIOLOGICAL	107
CIVIL UNREST	72
RADIOLOGICAL (FIXED SITE)	44

Hazard(s) rated as moderately high: WINTER STORM (SEVERE), LANDSUBSIDENCE, ICE STORM, FLOOD, SEVERE STORMS

WINTER STORM (SEVERE): 300, Moderately High Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: A Frequent Event

Onset: Several Hours Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

LANDSUBSIDENCE: 284, Moderately High Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Frequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Severe Damage to Private Property
 - Severe Structural Damage to Public Facilities

ICE STORM: 276, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Severe Damage to Private Property
 - Moderate Structural Damage to Public Facilities

FLOOD: 258, Moderately High Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Likely
Frequency: A Regular Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Severe Damage to Private Property
 - Severe Structural Damage to Public Facilities

SEVERE STORMS: 242, Moderately High Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: Several Hours Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

Hazard(s) rated as moderately low: DAM FAILURE, TRANS ACCIDENT, TORNADO, HAZMAT (IN TRANSIT), WILDFIE / DROUGHT, ICE JAM

DAM FAILURE: 231, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Highly Likely

Frequency: An Infrequent Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: One to Two Days

Impact:

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

TRANS ACCIDENT: 225, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: One to Two Days

Impact:

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

TORNADO: 220, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: An Infrequent Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

HAZMAT (IN TRANSIT): 210, Moderately Low Hazard

Potential Impact: Several Locations

Cascade Effects: Some Potential

Frequency: A Regular Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: One to Two Days

Impact:

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

WILDFIE / DROUGHT: 165, Moderately Low Hazard

Potential Impact: Throughout a Large Region

Cascade Effects: Some Potential

Frequency: An Infrequent Event

Onset: Several Hours Warning

Hazard Duration: One Day

Recovery Time: Less Than One Day

Impact:

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

ICE JAM: 164, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: One Day Warning
Hazard Duration: One Day
Recovery Time: Less Than One Day

Impact:

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

Hazard(s) rated as low: EPIDEMIC, EXPLOSION, LANDSLIDE, WATER SUPPLY CONTAMINATION, HAZMAT (FIXED SITE), EARTHQUAKE, RADIOLOGICAL (IN TRANSIT), TERRORISM-CHEMICAL, TERRORISM-BIOLOGICAL, TERRORISM-RADIOLOGICAL, CIVIL UNREST, RADIOLOGICAL (FIXED SITE)

EPIDEMIC: 152, Low Hazard

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

Impact:

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

EXPLOSION: 140, Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

LANDSLIDE: 139, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Severe Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 139, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 132, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

EARTHQUAKE: 130, Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 124, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM-CHEMICAL: 117, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM-BIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TERRORISM-RADIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

CIVIL UNREST: 72, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: One Day Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 44, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely

Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

LANDSUBSIDENCE
ICE STORM
DAM FAILURE
TRANS ACCIDENT
TORNADO
HAZMAT (IN TRANSIT)
EPIDEMIC
EXPLOSION
LANDSLIDE
HAZMAT (FIXED SITE)
EARTHQUAKE
RADIOLOGICAL (IN TRANSIT)
TERRORISM-CHEMICAL
TERRORISM-BIOLOGICAL
TERRORISM-RADIOLOGICAL

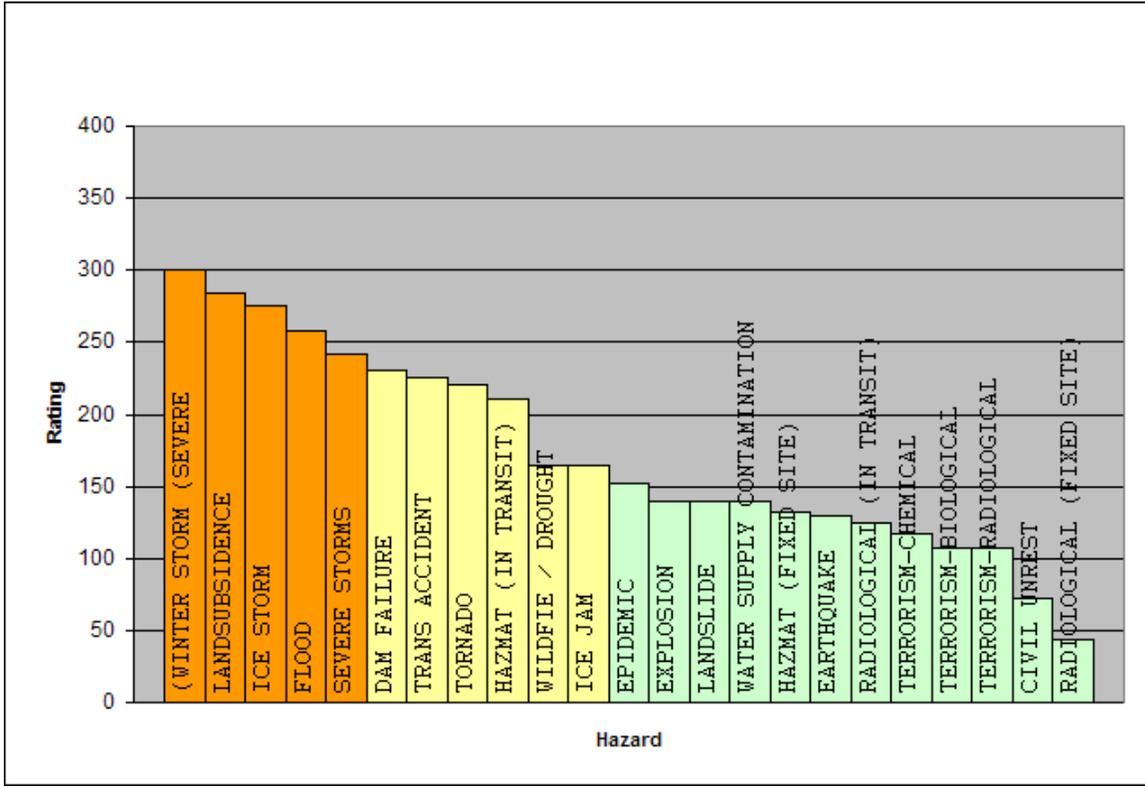
* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*

WINTER STORM (SEVERE)
LANDSUBSIDENCE

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Village of Cattaraugus

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																		
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard			Recovery															
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #s	Injury/Death Large #s	Injury/Death Extreme #s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
LANDSLIDE	316																																					
WINTER STORM (SEVERE)	282																																					
SEVERE STORMS	278																																					
TERRORISM-CHEMICAL	211																																					
FLOOD	201																																					
TERRORISM-RADIOLOGICAL	194																																					
TERRORISM-BIOLOGICAL	186																																					
LANDSUBSIDENCE	160																																					
ICE STORM	158																																					
TORNADO	147																																					
WATER SUPPLY CONTAMINATION	130																																					
WILDFIRE / DROUGHT	130																																					
CIVIL UNREST	117																																					
ICE JAM	117																																					
EARTHQUAKE	107																																					
EPIDEMIC	107																																					
EXPLOSION	107																																					
HAZMAT (IN TRANSIT)	107																																					
TRANS ACCIDENT	107																																					
HAZMAT (FIXED SITE)	54																																					
DAM FAILURE	44																																					
RADIOLOGICAL (FIXED SITE)	44																																					
RADIOLOGICAL (IN TRANSIT)	44																																					

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

HAZNY

Background

On 4/14/11, the Village of Little Valley conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

HAZNY and the Village of Little Valley

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Village of Little Valley completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Village of Little Valley. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 22 hazards as follows:

Hazard	Rating
WINTER STORM (SEVERE)	234
EPIDEMIC	226
ICE STORM	221
HAZMAT (FIXED SITE)	220
HAZMAT (IN TRANSIT)	218
DAM FAILURE	205
TERRORISM CHEMICAL	203
FLOOD	198
SEVERE STORMS	195
RADIOLOGICAL (IN TRANSIT)	193
EARTHQUAKE	188
TERRORISM BIOLOGICAL	188
ICE JAM	182
WATER SUPPLY CONTAMINATION	176
EXPLOSION	172
RADIOLOGICAL (FIXED SITE)	172
WILDFIRE / DROUGHT	172
LANDSLIDE	168
LAND SUBSIDENCE	158
TORNADO	149
TRANS ACCIDENT	139
CIVIL UNREST	119

Hazard(s) rated as moderately low: WINTER STORM (SEVERE), EPIDEMIC, ICE STORM, HAZMAT (FIXED SITE), HAZMAT (IN TRANSIT), DAM FAILURE, TERRORISM CHEMICAL, FLOOD, SEVERE STORMS, RADIOLOGICAL (IN TRANSIT), EARTHQUAKE, TERRORISM BIOLOGICAL, ICE JAM, WATER SUPPLY CONTAMINATION, EXPLOSION, RADIOLOGICAL (FIXED SITE), WILDFIRE / DROUGHT, LANDSLIDE

WINTER STORM (SEVERE): 234, Moderately Low Hazard

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

EPIDEMIC: 226, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: A Rare 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
- Severe Damage to Private Property
- Moderate Structural Damage to Public Facilities

ICE STORM: 221, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Highly Likely

Frequency: An Infrequent Event

Onset: Several Hours Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

HAZMAT (FIXED SITE): 220, Moderately Low Hazard

Potential Impact: Single Location

Cascade Effects: Some Potential

Frequency: An Infrequent Event

Onset: No Warning

Hazard Duration: More Than One Week

Recovery Time: One to 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

HAZMAT (IN TRANSIT): 218, Moderately Low Hazard

Potential Impact: Throughout a Small Region

Cascade Effects: Some Potential

Frequency: An Infrequent Event

Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week

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

DAM FAILURE: 205, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare 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

TERRORISM CHEMICAL: 203, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare 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

FLOOD: 198, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours 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
- Moderate Structural Damage to Public Facilities

SEVERE STORMS: 195, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Highly Likely
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

RADIOLOGICAL (IN TRANSIT): 193, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare 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

EARTHQUAKE: 188, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
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 is Likely, but not in Large Numbers
- Moderate Damage to Private Property
- Moderate Structural Damage to Public Facilities

TERRORISM BIOLOGICAL: 188, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
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 is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

ICE JAM: 182, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 176, Moderately Low Hazard

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

EXPLOSION: 172, Moderately Low Hazard

- Potential Impact:** Single Location

Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: One to 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

RADIOLOGICAL (FIXED SITE): 172, Moderately Low Hazard

Potential Impact: Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours 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

WILDFIRE / DROUGHT: 172, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Four days to One Week
Recovery Time: One to Two Days

Impact:

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

LANDSLIDE: 168, Moderately Low Hazard

Potential Impact: Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

Hazard(s) rated as low: LAND SUBSIDENCE, TORNADO, TRANS ACCIDENT, CIVIL UNREST

LAND SUBSIDENCE: 158, Low Hazard

Potential Impact: Single Location

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Two to Three Days

Recovery Time: Three Days to One Week

Impact:

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

TORNADO: 149, Low Hazard

Potential Impact: Single Location

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: Several Hours Warning

Hazard Duration: Less Than One Day

Recovery Time: One to Two Days

Impact:

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

TRANS ACCIDENT: 139, Low Hazard

Potential Impact: Single Location

Cascade Effects: Some Potential

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: Less Than One Day

Recovery Time: Less Than One Day

Impact:

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

CIVIL UNREST: 119, Low Hazard

Potential Impact: Single Location

Cascade Effects: Highly Unlikely

Frequency: A Rare Event

Onset: No Warning

Hazard Duration: One Day

Recovery Time: One to Two Days

Impact:

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

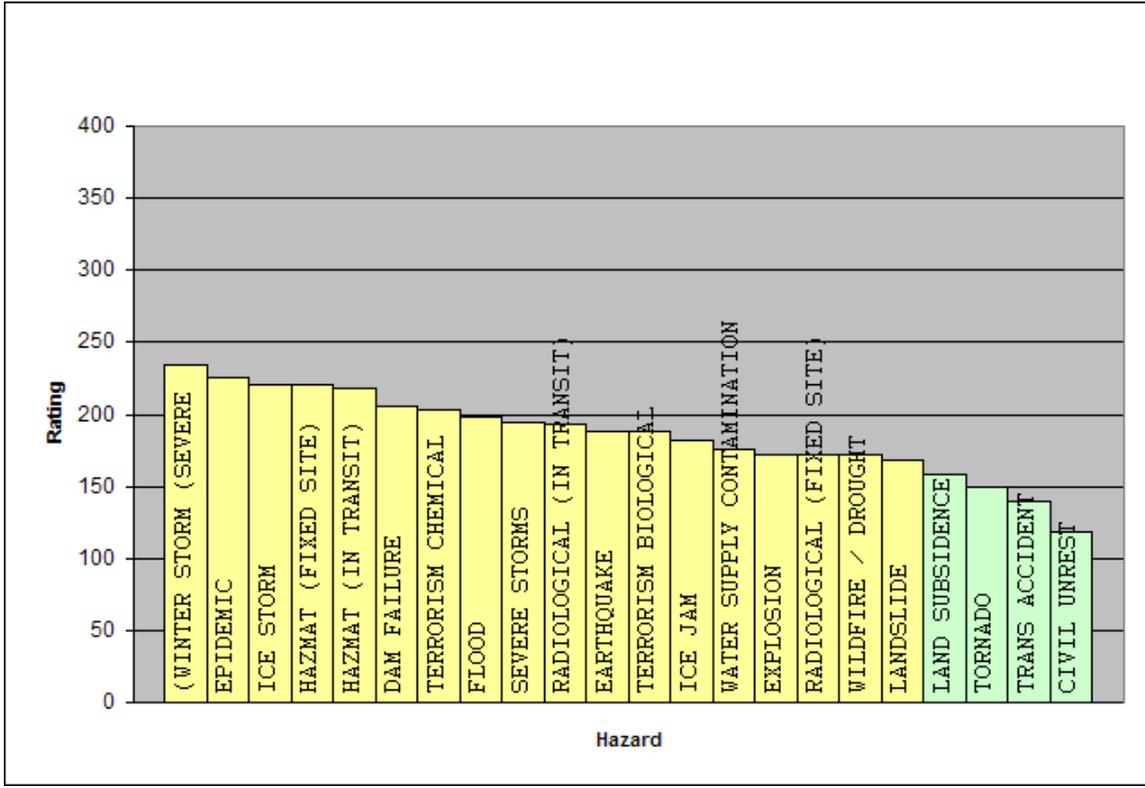
Biggest Hazards

HAZARDS THAT OCCUR WITH NO WARNING*

EPIDEMIC
HAZMAT (FIXED SITE)
HAZMAT (IN TRANSIT)
DAM FAILURE
TERRORISM CHEMICAL
SEVERE STORMS
RADIOLOGICAL (IN TRANSIT)
EARTHQUAKE
TERRORISM BIOLOGICAL
WATER SUPPLY CONTAMINATION
EXPLOSION
LANDSLIDE
LAND SUBSIDENCE
TRANS ACCIDENT
CIVIL UNREST

* No warning was selected from the Onset Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Village of Little Valley

Hazard	Rating	SCOPE						FREQUENCY				IMPACT						ONSET			DURATION																		
		Potential Area Of Impact			Cascade Effect			Frequency				People		Private Property		Public Facilities		Warning			Hazard		Recovery																
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks		
WINTER STORM (SEVERE)	234																																						
EPIDEMIC	226																																						
ICE STORM	221																																						
HAZMAT (FIXED SITE)	220																																						
HAZMAT (IN TRANSIT)	218																																						
DAM FAILURE	205																																						
TERRORISM CHEMICAL	203																																						
FLOOD	198																																						
SEVERE STORMS	195																																						
RADIOLOGICAL (IN TRANSIT)	193																																						
EARTHQUAKE	188																																						
TERRORISM BIOLOGICAL	188																																						
ICE JAM	182																																						
WATER SUPPLY CONTAMINATION	176																																						
EXPLOSION	172																																						
RADIOLOGICAL (FIXED SITE)	172																																						
WILDFIRE / DROUGHT	172																																						
LANDSLIDE	168																																						
LAND SUBSIDENCE	158																																						
TORNADO	149																																						
TRANS ACCIDENT	139																																						
CIVIL UNREST	119																																						

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

HAZNY

Background

On 4/14/11, the Village of South Dayton conducted a hazard analysis using the automated program, *HAZNY* (Hazards New York). *HAZNY* was developed by the American Red Cross and the New York State Emergency Management Office.

The results of this hazard analysis are presented in this report.

***HAZNY* and the Village of South Dayton**

HAZNY is an automated interactive spreadsheet that asks specific questions on potential hazards in a community and records and evaluates the responses to these questions. *HAZNY* also includes historical and expert data on selected hazards. The Village of South Dayton completed an individual *HAZNY* working with other Highway Superintendents in a group setting to consider and discuss the questions and issues raised by the *HAZNY* program. Representatives from Cattaraugus County Emergency Services and Cattaraugus County DPW facilitated the meeting and recorded the results.

The Results

The Highway Superintendant analyzed hazards potentially affecting the Village of South Dayton. *HAZNY* rated each hazard based on the Highway Superintendant's assessment and assigned a numerical value.

These values are categorized as follows:

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

The Group rated the 23 hazards as follows:

Hazard	Rating
SEVERE STORMS	238
WINTER STORM (SEVERE)	236
TORNADO	220
TRANS ACCIDENT	212
ICE STORM	202
WILDFIRE / DROUGHT	191
EARTHQUAKE	186
WATER SUPPLY CONTAMINATION	178
HAZMAT (IN TRANSIT)	162
EXPLOSION	158
HAZMAT (FIXED SITE)	158
EPIDEMIC	137
FLOOD	122
LANDSLIDE	119
TERRORISM - BIOLOGICAL	107
TERRORISM - CHEMICAL	107
TERRORISM - RADIOLOGICAL	107
ICE JAM	93
CIVIL UNREST	58
DAM FAILURE	44
LANDSUBSIDENCE	44
RADIOLOGICAL (FIXED SITE)	44
RADIOLOGICAL (IN TRANSIT)	44

Hazard(s) rated as moderately low: SEVERE STORMS, WINTER STORM (SEVERE), TORNADO, TRANS ACCIDENT, ICE STORM, WILDFIRE / DROUGHT, EARTHQUAKE, WATER SUPPLY CONTAMINATION, HAZMAT (IN TRANSIT)

SEVERE STORMS: 238, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
- Cascade Effects:** Some Potential
- Frequency:** A Frequent Event
- Onset:** Several Hours Warning
- Hazard Duration:** One Day
- Recovery Time:** One to Two Days
- Impact:**
 - Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WINTER STORM (SEVERE): 236, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Highly Unlikely
Frequency: A Frequent Event
Onset: Several Hours Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

TORNADO: 220, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Severe Damage to Private Property
 - Moderate Structural Damage to Public Facilities

TRANS ACCIDENT: 212, Moderately Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Highly Unlikely
Frequency: A Regular Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

ICE STORM: 202, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Regular Event
Onset: Several Hours Warning
Hazard Duration: One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WILDFIRE / DROUGHT: 191, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Two to Three Days
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death Unlikely
 - Severe Damage to Private Property
 - Moderate Structural Damage to Public Facilities

EARTHQUAKE: 186, Moderately Low Hazard

- Potential Impact:** Throughout a Large Region
Cascade Effects: Some Potential
Frequency: An Infrequent Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

WATER SUPPLY CONTAMINATION: 178, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
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 is Likely, but not in Large Numbers
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (IN TRANSIT): 162, Moderately Low Hazard

- Potential Impact:** Throughout a Small Region
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: One to Two Days
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Moderate Structural Damage to Public Facilities

Hazard(s) rated as low: EXPLOSION, HAZMAT (FIXED SITE), EPIDEMIC, FLOOD, LANDSLIDE, TERRORISM - BIOLOGICAL, TERRORISM - CHEMICAL, TERRORISM - RADIOLOGICAL, ICE JAM, CIVIL UNREST, DAM FAILURE, LANDSUBSIDENCE, RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT)

EXPLOSION: 158, Low Hazard

- Potential Impact:** Several Locations
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: Three Days to One Week
Impact:
- Serious Injury or Death is Likely, but not in Large Numbers
 - Moderate Damage to Private Property
 - Little or No Structural Damage to Public Facilities

HAZMAT (FIXED SITE): 158, Low Hazard

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

Impact:

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

EPIDEMIC: 137, Low Hazard

Potential Impact: Throughout a Small Region
Cascade Effects: Highly Unlikely
Frequency: A Rare 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
- Little or No Damage to Private Property
- Little or No Structural Damage to Public Facilities

FLOOD: 122, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: An Infrequent Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

LANDSLIDE: 119, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: One Day
Recovery Time: One to Two Days

Impact:

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

TERRORISM - BIOLOGICAL: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM - CHEMICAL: 107, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

TERRORISM - RADIOLOGICAL: 107, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: No Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

ICE JAM: 93, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Some Potential
Frequency: A Rare Event
Onset: Several Hours Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

CIVIL UNREST: 58, Low Hazard

- Potential Impact:** Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: Several Days Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day
Impact:
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

DAM FAILURE: 44, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

LANDSUBSIDENCE: 44, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (FIXED SITE): 44, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

- Impact:**
- Serious Injury or Death Unlikely
 - Little or No Damage to Private Property
 - Little or No Structural Damage to Public Facilities

RADIOLOGICAL (IN TRANSIT): 44, Low Hazard

Potential Impact: Single Location
Cascade Effects: Highly Unlikely
Frequency: A Rare Event
Onset: More Than One Week Warning
Hazard Duration: Less Than One Day
Recovery Time: Less Than One Day

Impact:

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

Biggest Hazards

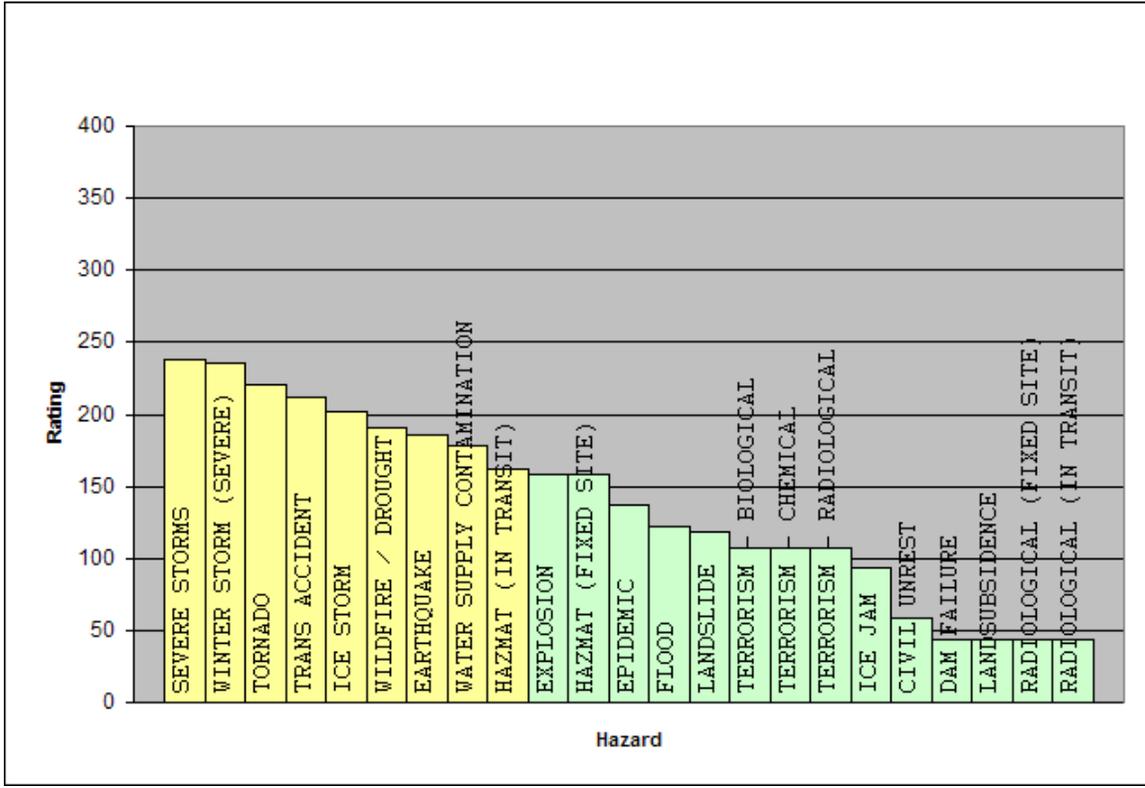
HAZARDS THAT OCCUR WITH NO WARNING*
TORNADO
TRANS ACCIDENT
WILDFIRE / DROUGHT
EARTHQUAKE
WATER SUPPLY CONTAMINATION
HAZMAT (IN TRANSIT)
EXPLOSION
HAZMAT (FIXED SITE)
LANDSLIDE
TERRORISM - BIOLOGICAL
TERRORISM - CHEMICAL
TERRORISM - RADIOLOGICAL

* No warning was selected from the Onset Tab.

HAZARDS THAT OCCUR MOST OFTEN*
SEVERE STORMS
WINTER STORM (SEVERE)

*A frequent event was selected on frequency Tab.

Figure 1. Chart of Hazards vs. Ratings



Hazard Analysis Matrix - Village of South Dayton

Hazard	Rating	SCOPE						FREQUENCY			IMPACT						ONSET			DURATION																		
		Potential Area Of Impact			Cascade Effect			Frequency			People			Private Property		Public Facilities	Warning			Hazard		Recovery																
		Single Location	Several Individual Location	Small Region	Large Region	Highly Unlikely	Some Potential	Highly Likely	A Rare Event	An Infrequent Event	A Regular Event	A Frequent Event	Injury or Death Unlikely	Injury/Death Small #'s	Injury/Death Large #'s	Injury/Death Extreme #'s	Little or No Damage	Moderate Damage	Severe Damage	Little or No Damage	Moderate Damage	Severe Damage	No Warning	Several Hours Warning	Up to One Day Warning	Up to One Week Warning	More Than a Week Warning	Less Than One Day	One Day	Two to Three Days	Four days to One Week	More Than One Week	Less Than One Day	One to Two Days	Three Days to One Week	One to Two Weeks	More Than Two Weeks	
SEVERE STORMS	238																																					
WINTER STORM (SEVERE)	236																																					
TORNADO	220																																					
TRANS ACCIDENT	212																																					
ICE STORM	202																																					
WILDFIRE / DROUGHT	191																																					
EARTHQUAKE	186																																					
WATER SUPPLY CONTAMINATION	178																																					
HAZMAT (IN TRANSIT)	162																																					
EXPLOSION	158																																					
HAZMAT (FIXED SITE)	158																																					
EPIDEMIC	137																																					
FLOOD	122																																					
LANDSLIDE	119																																					
TERRORISM - BIOLOGICAL	107																																					
TERRORISM - CHEMICAL	107																																					
TERRORISM - RADIOLOGICAL	107																																					
ICE JAM	93																																					
CIVIL UNREST	58																																					
DAM FAILURE	44																																					
LANDSUBSIDENCE	44																																					
RADIOLOGICAL (FIXED SITE)	44																																					
RADIOLOGICAL (IN TRANSIT)	44																																					

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