Appendix G – HAZNY
CATTARAUGUS COUNTY

Hazard Analysis Report

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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ice Storm</td>
<td>281.2</td>
</tr>
<tr>
<td>Flood</td>
<td>260.5</td>
</tr>
<tr>
<td>Power Failure</td>
<td>259.5</td>
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<tr>
<td>Winter Storm</td>
<td>243.8</td>
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<tr>
<td>Ice Jam</td>
<td>237.8</td>
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<tr>
<td>Civil Unrest</td>
<td>218.2</td>
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<tr>
<td>Wind Storm</td>
<td>209.8</td>
</tr>
<tr>
<td>Thunderstorm</td>
<td>203.2</td>
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<tr>
<td>Hazardous Materials at Fixed Sites</td>
<td>198.2</td>
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<tr>
<td>Drought</td>
<td>195.8</td>
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<tr>
<td>Transportation Accident</td>
<td>194.2</td>
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<td>Fire</td>
<td>190.8</td>
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<tr>
<td>Dam Failure</td>
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<td>Hazardous Materials in Transit</td>
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<td>Terrorism</td>
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<td>Oil Spill</td>
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<td>179.2</td>
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<td>Wildfire</td>
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<td>Year 2000 Date Change</td>
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<td>Earthquake</td>
<td>143.2</td>
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<td>Extreme Temperatures</td>
<td>138.5</td>
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<tr>
<td>Epidemic</td>
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<tr>
<td>Radiological Materials at Fixed Site</td>
<td>128.2</td>
</tr>
</tbody>
</table>

**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.
<table>
<thead>
<tr>
<th>HAZARD</th>
<th>Scope</th>
<th>Frequency</th>
<th>Impact</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ice Storm</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Frost</td>
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<td>Power Failure</td>
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<tr>
<td>Winter Storm (Blizzard)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Ice Jam</td>
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<tr>
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<td>Yes</td>
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<td>Heat Melting Site</td>
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<td>Transportation Accident</td>
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<td>Fire</td>
<td>Yes</td>
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<td>Dam Failure</td>
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<td>Heat Mass in Transit</td>
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<tr>
<td>Oil Spill</td>
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<td>Injection</td>
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<td>Tornado</td>
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<td>Wides</td>
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<tr>
<td>Year 2000 Date Change</td>
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<tr>
<td>Earthquake</td>
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<td>Cyclone</td>
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<tr>
<td>Radiological Event</td>
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</table>
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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>Civil Unrest</td>
<td>293.2</td>
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<tr>
<td>Hazardous Materials in Transit</td>
<td>274.7</td>
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<tr>
<td>Ice Storm</td>
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<td>Severe Storms</td>
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<td>Explosion</td>
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<tr>
<td>Flood</td>
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</tr>
<tr>
<td>Winter Storm</td>
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<tr>
<td>Terrorism-Biological</td>
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</tr>
<tr>
<td>Epidemic</td>
<td>242.0</td>
</tr>
<tr>
<td>Hazardous Material at Fixed Sites</td>
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</tr>
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<td>Water Supply Contamination</td>
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<tr>
<td>Terrorism-Radiological</td>
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<td>Wildfire</td>
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<td>Terrorism-Chemical</td>
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<td>Tornado</td>
<td>217.5</td>
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<td>Ice Jam</td>
<td>217.2</td>
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<td>Transportation Accident</td>
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<td>Dam Failure</td>
<td>186.2</td>
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<tr>
<td>Earthquake</td>
<td>162.5</td>
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<td>Radiological (Fixed Site)</td>
<td>157.5</td>
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<tr>
<td>Radiological (in-transit)</td>
<td>119.8</td>
</tr>
</tbody>
</table>

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
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.

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
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.
- 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
Frequency: Rare event
Hazard Duration: More than one week

Cascade Effects: Some potential
Onset: No warning
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
Frequency: Rare Event
Hazard Duration: Four days to one week

Cascade Effects: Some potential
Onset: No Warning
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
Frequency: Rare Event
Hazard Duration: One day

Cascade Effects: Some potential
Onset: No Warning
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.
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:

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

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

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR WITH NO WARNING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>EARTHQUAKE</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
</tr>
<tr>
<td>DAM FAILURE</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
</tr>
<tr>
<td>TERRORISM BIOLOGICAL</td>
</tr>
<tr>
<td>TERRORISM CHEMICAL</td>
</tr>
<tr>
<td>TERRORISM RADIOLOGICAL</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
</tr>
<tr>
<td>EXPLOSION</td>
</tr>
<tr>
<td>LANDSLIDE</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
</tr>
<tr>
<td>LANDSUBSIDENCE</td>
</tr>
</tbody>
</table>

* No warning was selected from the Onset Tab.

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR MOST OFTEN*</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLOOD</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
</tr>
</tbody>
</table>

*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 Superintendent analyzed hazards potentially affecting the City of Olean. 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:

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

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

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR WITH NO WARNING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANDSUBSIDENCE</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
</tr>
<tr>
<td>TERRORISM-BIOLOGICAL</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
</tr>
<tr>
<td>TERRORISM - RADIOLOGICAL</td>
</tr>
<tr>
<td>EXPLOSION</td>
</tr>
<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
</tr>
<tr>
<td>LANDSLIDE</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
</tr>
<tr>
<td>CIVIL UNREST</td>
</tr>
<tr>
<td>DAM FAILURE</td>
</tr>
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* No warning was selected from the Onset Tab.

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR MOST OFTEN*</th>
</tr>
</thead>
<tbody>
<tr>
<td>WINTER STORM (SEVERE)</td>
</tr>
<tr>
<td>LANDSUBSIDENCE</td>
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*A frequent event was selected on frequency Tab.

<table>
<thead>
<tr>
<th>HAZARDS THAT PRESENT THE GREATEST THREAT TO LIFE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLOOD</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
</tr>
<tr>
<td>TORNADO</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
</tr>
<tr>
<td>TERRORISM-BIOLOGICAL</td>
</tr>
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</table>

*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

<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Rating</td>
<td>Potential Area</td>
<td>Cascade</td>
<td>Frequency</td>
<td>Private</td>
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<tr>
<td></td>
<td></td>
<td>Of Impact</td>
<td>Effect</td>
<td>People</td>
<td>Property</td>
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<tr>
<td>WINTER STORM (SEVERE)</td>
<td>294</td>
<td>High</td>
<td>321-400</td>
<td>High</td>
<td>Injury</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
<td>270</td>
<td>High</td>
<td>241-320</td>
<td>High</td>
<td>Injury</td>
</tr>
<tr>
<td>FLOOD</td>
<td>266</td>
<td>High</td>
<td>161-240</td>
<td>High</td>
<td>Injury</td>
</tr>
<tr>
<td>LANDSUBSIDENCE</td>
<td>248</td>
<td>Moderate</td>
<td>44-160</td>
<td>Moderate</td>
<td>Injury</td>
</tr>
<tr>
<td>ICE STORM</td>
<td>245</td>
<td>Low</td>
<td>1-40</td>
<td>Low</td>
<td>Injury</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>245</td>
<td>Low</td>
<td>1-40</td>
<td>Low</td>
<td>Injury</td>
</tr>
<tr>
<td>TORNADO</td>
<td>222</td>
<td>Low</td>
<td>1-40</td>
<td>Low</td>
<td>Injury</td>
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<td>TERRORISM - CHEMICAL</td>
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<td>Injury</td>
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<td>EARTHQUAKE</td>
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<td>1-40</td>
<td>Low</td>
<td>Injury</td>
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<tr>
<td>TERRORISM-BIOLOGICAL</td>
<td>193</td>
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<td>1-40</td>
<td>Low</td>
<td>Injury</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
<td>185</td>
<td>Low</td>
<td>1-40</td>
<td>Low</td>
<td>Injury</td>
</tr>
<tr>
<td>TERRORISM - RADIOLOGICAL</td>
<td>184</td>
<td>Low</td>
<td>1-40</td>
<td>Low</td>
<td>Injury</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>168</td>
<td>Low</td>
<td>1-40</td>
<td>Low</td>
<td>Injury</td>
</tr>
<tr>
<td>ICE JAM</td>
<td>162</td>
<td>Low</td>
<td>1-40</td>
<td>Low</td>
<td>Injury</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
<td>151</td>
<td>Low</td>
<td>1-40</td>
<td>Low</td>
<td>Injury</td>
</tr>
<tr>
<td>EXPLOSION</td>
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<td>Low</td>
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<td>Low</td>
<td>Injury</td>
</tr>
<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
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<td>Injury</td>
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<tr>
<td>LANDSLIDE</td>
<td>134</td>
<td>Low</td>
<td>1-40</td>
<td>Low</td>
<td>Injury</td>
</tr>
<tr>
<td>EPIDEMIC</td>
<td>130</td>
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<td>Injury</td>
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<tr>
<td>HAZMAT (IN TRANSIT)</td>
<td>113</td>
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<td>1-40</td>
<td>Low</td>
<td>Injury</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
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<td>1-40</td>
<td>Low</td>
<td>Injury</td>
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<tr>
<td>CIVIL UNREST</td>
<td>107</td>
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<td>1-40</td>
<td>Low</td>
<td>Injury</td>
</tr>
<tr>
<td>DAM FAILURE</td>
<td>107</td>
<td>Low</td>
<td>1-40</td>
<td>Low</td>
<td>Injury</td>
</tr>
</tbody>
</table>

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

Cattaraugus County
Multi-Jurisdictional Hazard Mitigation Plan

Appendix G - HAZNY

Page 39 of 374
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 Superintendent analyzed hazards potentially affecting the City of Salamanca. 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
### Hazard Analysis Matrix - City of Salamanca

<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rating</td>
<td>Potential Area Of Impact</td>
<td>Cascade Effect</td>
<td>Frequency</td>
<td>People</td>
</tr>
<tr>
<td>TERRORISM - RADIOLOGICAL</td>
<td>292</td>
<td>Single Location</td>
<td>Highly Unlikely</td>
<td>A Rare Event</td>
<td>Injury or Death Unlikely</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
<td>270</td>
<td>Several Individual Location</td>
<td>Highly Likely</td>
<td>A Frequent Event</td>
<td>Injury/Death Small #’s</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
<td>268</td>
<td>Small Region</td>
<td>Some Potential</td>
<td>An Infrequent Event</td>
<td>Injury/Death Large #’s</td>
</tr>
<tr>
<td>LEVIES</td>
<td>256</td>
<td>Large Region</td>
<td>Highly Likely</td>
<td>A Frequent Event</td>
<td>Injury/Death Small #’s</td>
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<tr>
<td>TERRORISM - CHEMICAL</td>
<td>250</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
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<tr>
<td>TERRORISM - BIOLOGICAL</td>
<td>242</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
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<tr>
<td>CIVIL UNREST</td>
<td>238</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
</tr>
<tr>
<td>TORNADO</td>
<td>238</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
<td>238</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
</tr>
<tr>
<td>FLOOD</td>
<td>225</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
<td>221</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
</tr>
<tr>
<td>DAM FAILURE</td>
<td>204</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
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<tr>
<td>HAZMAT (IN TRANSIT)</td>
<td>202</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
</tr>
<tr>
<td>ICE STORM</td>
<td>202</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
<td>196</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>192</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>191</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
</tr>
<tr>
<td>LANDSLIDE</td>
<td>190</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
</tr>
<tr>
<td>EPIDEMIC</td>
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<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
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<tr>
<td>ICE JAM</td>
<td>180</td>
<td>Highly Unlikely</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
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<td>RADIOLOGICAL (IN TRANSIT)</td>
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<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
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<td>EXPLOSION</td>
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<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
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<tr>
<td>LANDSUBSIDENCE</td>
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<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
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<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury/Death Large #’s</td>
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The Group rated the 24 hazards as follows:

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

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,
LANDSUSSIDENCE, 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*

<table>
<thead>
<tr>
<th>Terrorism - Radiological</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terrorism - Chemical</td>
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<tr>
<td>Terrorism - Biological</td>
</tr>
<tr>
<td>Epidemic</td>
</tr>
</tbody>
</table>

*Serious injury and death in extremely large numbers was selected from the Impact Tab.
Figure 1. Chart of Hazards vs. Ratings
<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
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<tbody>
<tr>
<td></td>
<td>Rating</td>
<td>Potential Area</td>
<td>Cascade Effect</td>
<td>Frequency</td>
<td>People</td>
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<tr>
<td></td>
<td></td>
<td>Of Impact</td>
<td></td>
<td></td>
<td>Private Property</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Several Individual Location</td>
<td>A Regular Event</td>
<td>Injury or Death Small #’s</td>
<td>Large #’s</td>
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<tr>
<td></td>
<td></td>
<td>Small Region</td>
<td>Some Potential</td>
<td>A Infrequent Event</td>
<td>Injury/Death External #’s</td>
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<tr>
<td></td>
<td></td>
<td>Large Region</td>
<td>Highly Likely</td>
<td>A Frequent Event</td>
<td>Injury/Death External</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Highly Unlikely</td>
<td></td>
<td></td>
<td>Small #’s</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Some Potential</td>
<td></td>
<td></td>
<td>Large #’s</td>
</tr>
<tr>
<td>TERRORISM - RADIOLOGICAL</td>
<td>292</td>
<td>Single Location</td>
<td></td>
<td></td>
<td>Injury/Death External</td>
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<tr>
<td>SEVERE STORMS</td>
<td>270</td>
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<td></td>
<td></td>
<td>Small #’s</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
<td>268</td>
<td>Small Region</td>
<td></td>
<td></td>
<td>Large #’s</td>
</tr>
<tr>
<td>LEVIES</td>
<td>256</td>
<td>Highly Unlikely</td>
<td></td>
<td></td>
<td>Highly Unlikely</td>
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<tr>
<td>TERRORISM - CHEMICAL</td>
<td>250</td>
<td>Single Location</td>
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<td></td>
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<tr>
<td>TERRORISM - BIOLOGICAL</td>
<td>242</td>
<td>Several Individual Location</td>
<td></td>
<td></td>
<td>Highly Unlikely</td>
</tr>
<tr>
<td>CIVIL UNREST</td>
<td>238</td>
<td>Small Region</td>
<td></td>
<td></td>
<td>Highly Unlikely</td>
</tr>
<tr>
<td>TORNADO</td>
<td>238</td>
<td>Highly Unlikely</td>
<td></td>
<td></td>
<td>Highly Unlikely</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
<td>238</td>
<td>Single Location</td>
<td></td>
<td></td>
<td>Highly Unlikely</td>
</tr>
<tr>
<td>FLOOD</td>
<td>225</td>
<td>Several Individual Location</td>
<td></td>
<td></td>
<td>Moderate Unlikely</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
<td>221</td>
<td>Small Region</td>
<td></td>
<td></td>
<td>Moderate Unlikely</td>
</tr>
<tr>
<td>DAM FAILURE</td>
<td>204</td>
<td>Large Region</td>
<td></td>
<td></td>
<td>Moderate Unlikely</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
<td>202</td>
<td>Highly Unlikely</td>
<td></td>
<td></td>
<td>Moderate Unlikely</td>
</tr>
<tr>
<td>ICE STORM</td>
<td>202</td>
<td>Single Location</td>
<td></td>
<td></td>
<td>Moderate Unlikely</td>
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<tr>
<td>WILDFIRE / DROUGHT</td>
<td>196</td>
<td>Several Individual Location</td>
<td></td>
<td></td>
<td>Moderate Unlikely</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>192</td>
<td>Small Region</td>
<td></td>
<td></td>
<td>Moderate Unlikely</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>191</td>
<td>Large Region</td>
<td></td>
<td></td>
<td>Moderate Unlikely</td>
</tr>
<tr>
<td>LANDSLIDE</td>
<td>190</td>
<td>Highly Unlikely</td>
<td></td>
<td></td>
<td>Moderate Unlikely</td>
</tr>
<tr>
<td>EPIDEMIC</td>
<td>186</td>
<td>Single Location</td>
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<td></td>
<td>Moderate Unlikely</td>
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<tr>
<td>ICE JAM</td>
<td>180</td>
<td>Several Individual Location</td>
<td></td>
<td></td>
<td>Moderate Unlikely</td>
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<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>154</td>
<td>Small Region</td>
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<td></td>
<td>Moderate Unlikely</td>
</tr>
<tr>
<td>EXPLOSION</td>
<td>152</td>
<td>Large Region</td>
<td></td>
<td></td>
<td>Moderate Unlikely</td>
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<tr>
<td>LANDSUBLISIONS</td>
<td>138</td>
<td>Highly Unlikely</td>
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<td></td>
<td>Moderate Unlikely</td>
</tr>
<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
<td>44</td>
<td>Single Location</td>
<td></td>
<td></td>
<td>Moderate Unlikely</td>
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</tbody>
</table>
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 Superintendent analyzed hazards potentially affecting the Town of Allegany. 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:

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

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, LANDSUSEDENCE, 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

<table>
<thead>
<tr>
<th>Potential Impact:</th>
<th>Single Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects:</td>
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<tr>
<td>Frequency:</td>
<td>A Rare Event</td>
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<tr>
<td>Onset:</td>
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<tr>
<td>Hazard Duration:</td>
<td>Less Than One Day</td>
</tr>
<tr>
<td>Recovery Time:</td>
<td>Less Than One Day</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Potential Impact:</th>
<th>Single Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects:</td>
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<tr>
<td>Frequency:</td>
<td>A Rare Event</td>
</tr>
<tr>
<td>Onset:</td>
<td>No Warning</td>
</tr>
<tr>
<td>Hazard Duration:</td>
<td>Less Than One Day</td>
</tr>
<tr>
<td>Recovery Time:</td>
<td>Less Than One Day</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Potential Impact:</th>
<th>Single Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects:</td>
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<td>Frequency:</td>
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<td>Onset:</td>
<td>No Warning</td>
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<tr>
<td>Hazard Duration:</td>
<td>Less Than One Day</td>
</tr>
<tr>
<td>Recovery Time:</td>
<td>Less Than One Day</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR WITH NO WARNING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANS ACCIDENT</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
</tr>
<tr>
<td>LANDSUBSIDENCE</td>
</tr>
<tr>
<td>LANDSLIDE</td>
</tr>
<tr>
<td>EXPLOSION</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
</tr>
<tr>
<td>EPIDEMIC</td>
</tr>
<tr>
<td>TERRORISM - BIOLOGICAL</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
</tr>
<tr>
<td>TERRORISM - RADIOLOGICAL</td>
</tr>
</tbody>
</table>

* No warning was selected from the Onset Tab.

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR MOST OFTEN*</th>
</tr>
</thead>
<tbody>
<tr>
<td>WINTER STORM (SEVERE)</td>
</tr>
</tbody>
</table>

*A frequent event was selected on frequency Tab.
Figure 1. Chart of Hazards vs. Ratings
<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Potential Area</td>
<td>Cascade Effect</td>
<td>Frequency</td>
<td>People</td>
<td>Public Facilities</td>
</tr>
<tr>
<td></td>
<td>Of Impact</td>
<td>Frequency</td>
<td>People</td>
<td>Property</td>
<td>Facilities</td>
</tr>
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</tr>
<tr>
<td>FLOOD</td>
<td>High 321-400</td>
<td>Single Location</td>
<td>Single Location</td>
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</tr>
<tr>
<td>SEVERE STORMS</td>
<td>Moderately High 241-320</td>
<td>Several Individual Locations</td>
<td>Several Individual Locations</td>
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<td>Several Hours Warning</td>
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<td>Low</td>
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</tr>
<tr>
<td>TRANS ACCIDENT</td>
<td>Low 44-160</td>
<td>Highly Unlikely</td>
<td>Highly Unlikely</td>
<td>Very Low</td>
<td>One to Two Days</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
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<td>Some Potential</td>
<td>Some Potential</td>
<td>Exceedingly Low</td>
<td>Two to Three Days</td>
</tr>
<tr>
<td>LANDSUBSIDENCE</td>
<td>Exceedingly Low</td>
<td>A Rare Event</td>
<td>A Rare Event</td>
<td>Rare</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>LANDSLIDE</td>
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<td>An Infrequent Event</td>
<td>An Infrequent Event</td>
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<td>A Regular Event</td>
<td>A Regular Event</td>
<td>Regular</td>
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<td>Exceedingly Low</td>
<td>Injury/Death Small #s</td>
<td>Injury/Death Small #s</td>
<td>Severe</td>
<td>More Than One Week</td>
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<tr>
<td>TORNADO</td>
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<td>Injury/Death Large #s</td>
<td>Injury/Death Large #s</td>
<td>Severe</td>
<td>More Than One Week</td>
</tr>
<tr>
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<td>Injury/Death Extreme #s</td>
<td>Injury/Death Extreme #s</td>
<td>Severe</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>ICE STORM</td>
<td>Exceedingly Low</td>
<td>Injury/Death</td>
<td>Injury/Death</td>
<td>Severe</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>Exceedingly Low</td>
<td>Injury/Death</td>
<td>Injury/Death</td>
<td>Severe</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>Exceedingly Low</td>
<td>Injury/Death</td>
<td>Injury/Death</td>
<td>Severe</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>ICE JAM</td>
<td>Exceedingly Low</td>
<td>Injury/Death</td>
<td>Injury/Death</td>
<td>Severe</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
<td>Exceedingly Low</td>
<td>Injury/Death</td>
<td>Injury/Death</td>
<td>Severe</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>EPIDEMIC</td>
<td>Exceedingly Low</td>
<td>Injury/Death</td>
<td>Injury/Death</td>
<td>Severe</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>TERRORISM - BIOLOGICAL</td>
<td>Exceedingly Low</td>
<td>Injury/Death</td>
<td>Injury/Death</td>
<td>Severe</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
<td>Exceedingly Low</td>
<td>Injury/Death</td>
<td>Injury/Death</td>
<td>Severe</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>TERRORISM - RADIOLOGICAL</td>
<td>Exceedingly Low</td>
<td>Injury/Death</td>
<td>Injury/Death</td>
<td>Severe</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>CIVIL UNREST</td>
<td>Exceedingly Low</td>
<td>Injury/Death</td>
<td>Injury/Death</td>
<td>Severe</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>DAM FAILURE</td>
<td>Exceedingly Low</td>
<td>Injury/Death</td>
<td>Injury/Death</td>
<td>Severe</td>
<td>More Than One Week</td>
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<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
<td>Exceedingly Low</td>
<td>Injury/Death</td>
<td>Injury/Death</td>
<td>Severe</td>
<td>More Than One Week</td>
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</table>
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:

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

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
<table>
<thead>
<tr>
<th>Event Type</th>
<th>Frequency</th>
<th>Onset</th>
<th>Hazard Duration</th>
<th>Recovery Time</th>
<th>Impact</th>
</tr>
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<tbody>
<tr>
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<td>Rare Event</td>
<td>One Day Warning</td>
<td>Four days to One Week</td>
<td>One to Two Weeks</td>
<td>Serious Injury or Death Unlikely, Little or No Damage to Private Property, Little or No Structural Damage to Public Facilities</td>
</tr>
<tr>
<td>LANDSUBSIDENCE</td>
<td>Rare Event</td>
<td>No Warning</td>
<td>One Day</td>
<td>One to Two Days</td>
<td>Serious Injury or Death Unlikely, Little or No Damage to Private Property, Little or No Structural Damage to Public Facilities</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
<td>Rare Event</td>
<td>No Warning</td>
<td>One Day</td>
<td>One to Two Days</td>
<td>Serious Injury or Death Unlikely, Little or No Damage to Private Property, Little or No Structural Damage to Public Facilities</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR WITH NO WARNING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLOOD</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
</tr>
<tr>
<td>LANDSLIDE</td>
</tr>
<tr>
<td>TERRORISM - RADILOGICAL</td>
</tr>
<tr>
<td>RADILOGICAL (FIXED SITE)</td>
</tr>
<tr>
<td>RADILOGICAL (IN TRANSIT)</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
</tr>
<tr>
<td>LANDSUBSIDENCE</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
</tr>
<tr>
<td>EXPLOSION</td>
</tr>
<tr>
<td>TERRORISM - BIOLOGICAL</td>
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</table>

* No warning was selected from the Onset Tab.
Figure 1. Chart of Hazards vs. Ratings
## Hazard Analysis Matrix - Town of Ashford

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Frequency</th>
<th>Impact</th>
<th>Onset</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hazard</strong></td>
<td><strong>Potential Area Of Impact</strong></td>
<td><strong>Cascade Effect</strong></td>
<td><strong>Frequency</strong></td>
<td><strong>People</strong></td>
</tr>
<tr>
<td>FLOOD</td>
<td>High 321-400</td>
<td>Moderately High 241-320</td>
<td>Moderately Low 161-240</td>
<td>Low 44-160</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
<td>253</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICE STORM</td>
<td>246</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEVERE STORMS</td>
<td>222</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TORNADO</td>
<td>222</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EARTHQUAKE</td>
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<td></td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
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<tr>
<td>HAZMAT (IN TRANSIT)</td>
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<tr>
<td>WILDFIRE / DROUGHT</td>
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<td>WATER SUPPLY CONTAMINATION</td>
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<tr>
<td>EXPLOSION</td>
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Cattaraugus County
Multi-Jurisdictional Hazard Mitigation Plan

Appendix G - HAZNY
Page 77 of 374
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 Superintendent analyzed hazards potentially affecting the Town of Conewango. 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:

<table>
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<tr>
<td>EPIDEMIC</td>
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<tr>
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<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>107</td>
</tr>
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</table>

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

Town of Conewango
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
- LANDSUBLIDENCE
- RADILOGICAL (FIXED SITE)
- RADILOGICAL (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

<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
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</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>107</td>
<td>Small Region</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury/Death Extremely High #’s</td>
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<tr>
<td>TERRORISM BIOLOGICAL</td>
<td>107</td>
<td>Small Region</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury/Death Extremely High #’s</td>
</tr>
<tr>
<td>TERRORISM CHEMICAL</td>
<td>107</td>
<td>Small Region</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury/Death Extremely High #’s</td>
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<tr>
<td>TERRORISM RADIOLOGICAL</td>
<td>107</td>
<td>Small Region</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury/Death Extremely High #’s</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>107</td>
<td>Small Region</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury/Death Extremely High #’s</td>
</tr>
</tbody>
</table>
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 Superintendent analyzed hazards potentially affecting the Town of Dayton. 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:

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

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
<table>
<thead>
<tr>
<th>Hazard</th>
<th>Frequency</th>
<th>Impact</th>
<th>Onset</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattaraugus County Multi-Jurisdictional Hazard Mitigation Plan</td>
<td>High 321-400</td>
<td>Moderately High 241-320</td>
<td>Moderately Low 161-240</td>
<td>Low 44-160</td>
</tr>
<tr>
<td>Appendix G - HAZNY</td>
<td>Page 101 of 374</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 Superintendent analyzed hazards potentially affecting the Town of East Otto. 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
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</tr>
<tr>
<td>LANDSLIDE</td>
<td>240</td>
</tr>
<tr>
<td>FLOOD</td>
<td>216</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>205</td>
</tr>
<tr>
<td>ICE JAM</td>
<td>194</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
<td>188</td>
</tr>
<tr>
<td>TERRORISM - BIOLOGICAL</td>
<td>188</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
<td>188</td>
</tr>
<tr>
<td>TORNADO</td>
<td>182</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
<td>179</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
<td>178</td>
</tr>
<tr>
<td>ICE STORM</td>
<td>173</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
<td>172</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
<td>169</td>
</tr>
<tr>
<td>TERRORISM - RADIOLOGICAL</td>
<td>168</td>
</tr>
<tr>
<td>DAM FAILURE</td>
<td>158</td>
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<tr>
<td>EXPLOSION</td>
<td>158</td>
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<tr>
<td>EPIDEMIC</td>
<td>153</td>
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<tr>
<td>LANDSUBSIDENCE</td>
<td>138</td>
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<tr>
<td>CIVIL UNREST</td>
<td>132</td>
</tr>
<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
<td>132</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>132</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>97</td>
</tr>
</tbody>
</table>

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
**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**

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR WITH NO WARNING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
</tr>
<tr>
<td>LANDSLIDE</td>
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<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
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<tr>
<td>TERRORISM - BIOLOGICAL</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
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<tr>
<td>TORNADO</td>
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<tr>
<td>TERRORISM - CHEMICAL</td>
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<tr>
<td>TRANS ACCIDENT</td>
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<tr>
<td>EARTHQUAKE</td>
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<tr>
<td>TERRORISM - RADIOLOGICAL</td>
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<tr>
<td>DAM FAILURE</td>
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<td>EXPLOSION</td>
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<tr>
<td>LANDSUBSIDENCE</td>
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<tr>
<td>CIVIL UNREST</td>
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<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
</tr>
</tbody>
</table>

* No warning was selected from the Onset Tab.
Figure 1. Chart of Hazards vs. Ratings

- Landslide
- Flood
- Radiological (in transit)
- Ice Jam
- Severe Storms
- Terrorism - Biological
- Wildfire / Drought
- Tornado
- Terrorism - Chemical
- ICE STORM
- Trans Accident
- Earthquake
- Dam Failure
- Explosion
- Epidemic
- Civil Unrest
- Radiological Contamination
- Water Supply Contamination
- Hazmat (fixed site)
## Hazard Analysis Matrix - Town of East Otto

<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
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<td>Frequency</td>
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<td>LANDSLIDE</td>
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<td>ICE JAM</td>
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<td>SEVERE STORMS</td>
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<td>TORNADO</td>
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<td>WATER SUPPLY CONTAMINATION</td>
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<td>HAZMAT (FIXED SITE)</td>
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<tr>
<td>Cattaraugus County Multi-Jurisdictional Hazard Mitigation Plan Appendix G - HAZNY Page 113 of 374</td>
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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 Superintendent analyzed hazards potentially affecting the Town of East Otto. 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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
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<tbody>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
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<tr>
<td>LANDSLIDE</td>
<td>240</td>
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<tr>
<td>FLOOD</td>
<td>216</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>205</td>
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<tr>
<td>ICE JAM</td>
<td>194</td>
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<tr>
<td>SEVERE STORMS</td>
<td>188</td>
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<tr>
<td>TERRORISM - BIOLOGICAL</td>
<td>188</td>
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<tr>
<td>WILDFIRE / DROUGHT</td>
<td>188</td>
</tr>
<tr>
<td>TORNADO</td>
<td>182</td>
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<tr>
<td>WINTER STORM (SEVERE)</td>
<td>179</td>
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<tr>
<td>TERRORISM - CHEMICAL</td>
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<td>ICE STORM</td>
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<td>TRANS ACCIDENT</td>
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<td>RADIOLOGICAL (FIXED SITE)</td>
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<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>132</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>97</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Several Locations</th>
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</thead>
<tbody>
<tr>
<td>Cascade Effects</td>
<td>Some Potential</td>
</tr>
<tr>
<td>Frequency</td>
<td>A Regular Event</td>
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<tr>
<td>Onset</td>
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</tr>
<tr>
<td>Hazard Duration</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>Recovery Time</td>
<td>Less Than One Day</td>
</tr>
</tbody>
</table>

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

**FLOOD**: 216, Moderately Low Hazard

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Throughout a Large Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects</td>
<td>Some Potential</td>
</tr>
<tr>
<td>Frequency</td>
<td>A Regular Event</td>
</tr>
<tr>
<td>Onset</td>
<td>One Day Warning</td>
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<tr>
<td>Hazard Duration</td>
<td>One Day</td>
</tr>
<tr>
<td>Recovery Time</td>
<td>Three Days to One Week</td>
</tr>
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</table>

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

**RADIOLOGICAL (IN TRANSIT)**: 205, Moderately Low Hazard

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Throughout a Large Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects</td>
<td>Some Potential</td>
</tr>
<tr>
<td>Frequency</td>
<td>An Infrequent Event</td>
</tr>
<tr>
<td>Onset</td>
<td>No Warning</td>
</tr>
<tr>
<td>Hazard Duration</td>
<td>Less Than One Day</td>
</tr>
<tr>
<td>Recovery Time</td>
<td>Less Than One Day</td>
</tr>
</tbody>
</table>

**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

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<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
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<th>ONSET</th>
<th>DURATION</th>
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<tr>
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<td>Potential Area</td>
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<tr>
<td>FLOOD</td>
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</tbody>
</table>

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

Appendix G - HAZNY

Page 125 of 374

Cattaraugus County
Multi-Jurisdictional Hazard Mitigation Plan
**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 Superintendent analyzed hazards potentially affecting the Town of Ellicottville. *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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
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<td>WILDFIRE / DROUGHT</td>
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<td>ICE JAM</td>
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<td>LANDSUBSIDENCE</td>
<td>93</td>
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</table>

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), TERRORISM - 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

<table>
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<th>Potential Impact:</th>
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<td>Cascade Effects:</td>
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<td>Frequency:</td>
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<tr>
<td>Impact:</td>
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</table>
| • 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

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<td>Impact:</td>
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| • Serious Injury or Death is Unlikely
• Moderate Damage to Private Property
• Little or No Structural Damage to Public Facilities

### EPIDEMIC: 168, Moderately Low Hazard

<table>
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<td>Recovery Time:</td>
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<tr>
<td>Impact:</td>
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</table>
| • 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, LANDSUBLISION

RADIOLOGICAL (FIXED SITE): 161, Low Hazard

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SEVERE STORMS: 161, Low Hazard

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<td>• Serious Injury or Death is Likely, but not in Large Numbers</td>
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<td>• Moderate Structural Damage to Public Facilities</td>
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TERRORISM - BIOLOGICAL: 144, Low Hazard

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<td>• Serious Injury or Death is Likely, but not in Large Numbers</td>
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<td>• Little or No Damage to Private Property</td>
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<td>• Little or No Structural Damage to Public Facilities</td>
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</table>
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
<table>
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<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
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Cattaraugus County
Multi-Jurisdictional Hazard Mitigation Plan

Appendix G - HAZNY

Page 137 of 374
HAZNY

Background

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<table>
<thead>
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<th>Hazard</th>
<th>Rating</th>
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<tr>
<td>WINTER STORM (SEVERE)</td>
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<td>ICE JAM</td>
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<td>DAM FAILURE</td>
<td>224</td>
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<td>EARTHQUAKE</td>
<td>189</td>
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<tr>
<td>WILDFIRE/DROUGHT</td>
<td>189</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>183</td>
</tr>
<tr>
<td>FLOOD</td>
<td>168</td>
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<td>LANDSLIDE</td>
<td>168</td>
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<tr>
<td>TORNADO</td>
<td>168</td>
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<tr>
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<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
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</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
<td>113</td>
</tr>
<tr>
<td>CIVIL UNREST</td>
<td>86</td>
</tr>
</tbody>
</table>

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, LANDSBSIDENCE, 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

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR WITH NO WARNING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>WINTER STORM (SEVERE)</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
</tr>
<tr>
<td>FLOOD</td>
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<tr>
<td>ICE JAM</td>
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<tr>
<td>DAM FAILURE</td>
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<td>EARTHQUAKE</td>
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<tr>
<td>HAZMAT (FIXED SITE)</td>
</tr>
<tr>
<td>LANDSLIDE</td>
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<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
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<tr>
<td>WATER SUPPLY CONTAMINATION</td>
</tr>
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<td>TRANS ACCIDENT</td>
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<tr>
<td>LANDSUBSIDENCE</td>
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<td>TERRORISM RADIOLOGICAL</td>
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<tr>
<td>TERRORISM CHEMICAL</td>
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<tr>
<td>EXPLOSION</td>
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<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
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* No warning was selected from the Onset Tab.

<table>
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<tr>
<th>HAZARDS THAT OCCUR MOST OFTEN*</th>
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</tbody>
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*A frequent event was selected on frequency Tab.
Figure 1. Chart of Hazards vs. Ratings
### Hazard Analysis Matrix - Town of Farmersville

<table>
<thead>
<tr>
<th>Hazard</th>
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<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
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<td>Frequency</td>
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<td>Effect</td>
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<td>WATER SUPPLY CONTAMINATION</td>
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<td>Injury/Death</td>
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<tr>
<td>EXPLOSION</td>
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<td>Injury/Death</td>
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<td>RADIOLOGICAL (FIXED SITE)</td>
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<td>A Rare Event</td>
<td>Injury/Death</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
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<td>Injury/Death</td>
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<tr>
<td>CIVIL UNREST</td>
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<td>Small Region</td>
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<td>A Rare Event</td>
<td>Injury/Death</td>
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</table>
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 Superintendent analyzed hazards potentially affecting the Town of Hinsdale. 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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLOOD</td>
<td>283</td>
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<tr>
<td>TRANS ACCIDENT</td>
<td>240</td>
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<tr>
<td>WINTER STORM (SEVERE)</td>
<td>235</td>
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<td>ICE JAM</td>
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<td>SEVERE STORMS</td>
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<td>HAZMAT (IN TRANSIT)</td>
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<td>124</td>
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<td>WILDFIRE / DROUGHT</td>
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<td>RADIOLOGICAL (FIXED SITE)</td>
<td>44</td>
</tr>
</tbody>
</table>

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

LANDSUBLISCE: 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

Town of Hinsdale
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
<table>
<thead>
<tr>
<th>Hazard</th>
<th>Frequency</th>
<th>Impact</th>
<th>Onset</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Potential Area Of Impact</strong></td>
<td>Single Location</td>
<td>Small Region</td>
<td>Large Region</td>
<td>Highly Likely</td>
</tr>
<tr>
<td><strong>Hazard Analysis Matrix - Town of Hinsdale</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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| Hazard                        | Rating | Single Location | Several Individual Locations | Small Region | Large Region | Highly Likely | Some Potential | Highly Unlikely | A Rare Event | A Regular Event | A Frequent Event | Injury or Death, Small #’s | Injury or Death, Large #’s | Injury or 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 | One to Two Days | More than a Week | Less Than One Day | One Day | Two to Three Days | Four to Seven Days | More than One Month | Less than Two Months | One to Two Months | More than Two Months |
|-------------------------------|--------|-----------------|-----------------------------|--------------|--------------|---------------|----------------|----------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 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    |                 |                             |              |              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| RADIOLICAL (IN TRANSIT)      | 107    |                 |                             |              |              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| TERRORISM - BIOLOGICAL       | 107    |                 |                             |              |              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| TERRORISM - CHEMICAL         | 107    |                 |                             |              |              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| TERRORISM - RADIOLOGICAL     | 107    |                 |                             |              |              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| WATER SUPPLY CONTAMINATION   | 107    |                 |                             |              |              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| HAZMAT (FIXED SITE)          | 44     |                 |                             |              |              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| LANDSUBSIDENCE               | 44     |                 |                             |              |              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| RADIOLICAL (FIXED SITE)      | 44     |                 |                             |              |              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |

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

Cattaraugus County
Multi-Jurisdictional Hazard Mitigation Plan
Appendix G - HAZNY
Page 161 of 374
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 Superintendent analyzed hazards potentially affecting the Town of Humphrey. 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:

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

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: LANDSUSCIDENTS, WILDFIRE / DROUGHT, TRANSACCIDENT, CIVIL UNREST, HAZMAT (FIXED SITE)

LANDSUSCIDENTS: 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 | EARTHQUAKE |
| TERRORISM - CHEMICAL | LANDSLIDE |
| TERRORISM - RADIOLOGICAL | 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 | EPIDEMIC |
| TERRORISM - CHEMICAL | |
| TERRORISM - RADIOLOGICAL | |

*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

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Scope Rating</th>
<th>Frequency</th>
<th>Impact</th>
<th>Onset</th>
<th>Duration</th>
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<tbody>
<tr>
<td>SEVERE STORMS</td>
<td>321-400</td>
<td>Single</td>
<td>People</td>
<td>Warning</td>
<td>Less Than One Day</td>
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<tr>
<td>TERRORISM - BIOLOGICAL</td>
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<td>Public</td>
<td>No Warning</td>
<td>More Than One Week</td>
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<tr>
<td>WINTER STORM (SEVERE)</td>
<td>274</td>
<td>Large</td>
<td>Facilities</td>
<td>Up to One Week Warning</td>
<td>One to Two Weeks</td>
</tr>
<tr>
<td>ICE JAM</td>
<td>269</td>
<td>Highly Unlikely</td>
<td>Injury</td>
<td>Less Than One Day</td>
<td>One to Two Days</td>
</tr>
<tr>
<td>ICE STORM</td>
<td>260</td>
<td>Highly Likely</td>
<td>Death</td>
<td>Up to One Week Warning</td>
<td>One to Two Weeks</td>
</tr>
<tr>
<td>TORNADO</td>
<td>256</td>
<td>Highly Unlikely</td>
<td>Injury</td>
<td>More Than One Week</td>
<td>One to Two Weeks</td>
</tr>
<tr>
<td>FLOOD</td>
<td>252</td>
<td>Highly Likely</td>
<td>Death</td>
<td>Less Than One Day</td>
<td>Three Days to One Week</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
<td>242</td>
<td>Highly Likely</td>
<td>Injury</td>
<td>More Than One Week</td>
<td>Three Days to One Week</td>
</tr>
<tr>
<td>TERRORISM - RADIOLOGICAL</td>
<td>242</td>
<td>Highly Likely</td>
<td>Death</td>
<td>More Than One Week</td>
<td>More Than Three Days</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
<td>230</td>
<td>Highly Likely</td>
<td>Injury</td>
<td>More Than One Week</td>
<td>More Than Three Days</td>
</tr>
<tr>
<td>LANDSLIDE</td>
<td>227</td>
<td>Highly Likely</td>
<td>Death</td>
<td>More Than One Week</td>
<td>More Than Three Days</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
<td>223</td>
<td>Highly Likely</td>
<td>Injury</td>
<td>More Than One Week</td>
<td>More Than Three Days</td>
</tr>
<tr>
<td>EXPLOSION</td>
<td>193</td>
<td>Highly Likely</td>
<td>Death</td>
<td>More Than One Week</td>
<td>More Than Three Days</td>
</tr>
<tr>
<td>DAM FAILURE</td>
<td>192</td>
<td>Highly Likely</td>
<td>Injury</td>
<td>More Than One Week</td>
<td>More Than Three Days</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>186</td>
<td>Highly Likely</td>
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<td>More Than One Week</td>
<td>More Than Three Days</td>
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<tr>
<td>RADIOLGICAL (IN TRANSIT)</td>
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<td>More Than Three Days</td>
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<tr>
<td>RADIOLGICAL (FIXED SITE)</td>
<td>176</td>
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<td>More Than Three Days</td>
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<td>EPIDEMIC</td>
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<td>More Than Three Days</td>
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<tr>
<td>LANDSUBSIDENCE</td>
<td>161</td>
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<td>Death</td>
<td>More Than One Week</td>
<td>More Than Three Days</td>
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<tr>
<td>WILDFIRE / DROUGHT</td>
<td>154</td>
<td>Highly Likely</td>
<td>Injury</td>
<td>More Than One Week</td>
<td>More Than Three Days</td>
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<td>TRANS ACCIDENT</td>
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<td>More Than Three Days</td>
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<tr>
<td>CIVIL UNREST</td>
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<td>Highly Likely</td>
<td>Injury</td>
<td>More Than One Week</td>
<td>More Than Three Days</td>
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<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>82</td>
<td>Highly Likely</td>
<td>Death</td>
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<td>More Than Three Days</td>
</tr>
</tbody>
</table>
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 Superintendent analyzed hazards potentially affecting the Town of Ischua. 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:

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

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  

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

SEVERE STORMS: 238, Moderately Low Hazard

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Throughout a Small Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects</td>
<td>Some Potential</td>
</tr>
<tr>
<td>Frequency</td>
<td>A Regular Event</td>
</tr>
<tr>
<td>Onset</td>
<td>No Warning</td>
</tr>
<tr>
<td>Hazard Duration</td>
<td>Two to Three Days</td>
</tr>
<tr>
<td>Recovery Time</td>
<td>Three Days to One Week</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Throughout a Large Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects</td>
<td>Some Potential</td>
</tr>
<tr>
<td>Frequency</td>
<td>A Regular Event</td>
</tr>
<tr>
<td>Onset</td>
<td>Several Hours Warning</td>
</tr>
<tr>
<td>Hazard Duration</td>
<td>Two to Three Days</td>
</tr>
<tr>
<td>Recovery Time</td>
<td>Three Days to One Week</td>
</tr>
</tbody>
</table>

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

ICE STORM: 211, Moderately Low Hazard

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Throughout a Small Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects</td>
<td>Some Potential</td>
</tr>
<tr>
<td>Frequency</td>
<td>A Regular Event</td>
</tr>
<tr>
<td>Onset</td>
<td>One Day Warning</td>
</tr>
<tr>
<td>Hazard Duration</td>
<td>Two to Three Days</td>
</tr>
<tr>
<td>Recovery Time</td>
<td>Three Days to One Week</td>
</tr>
</tbody>
</table>

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   |
| LANDSUSSIDENCE   |
| 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
<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
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<tbody>
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<td>Rating</td>
<td>Frequency</td>
<td>People</td>
<td>Warning</td>
<td>Hazard</td>
</tr>
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<td>People</td>
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</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
<td></td>
<td></td>
<td>People</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICE STORM</td>
<td></td>
<td></td>
<td>People</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
<td></td>
<td></td>
<td>People</td>
<td></td>
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</tr>
<tr>
<td>LANDSUBLIDENCE</td>
<td></td>
<td></td>
<td>People</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LANDSLIDE</td>
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<td></td>
<td>People</td>
<td></td>
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<td>EARTHQUAKE</td>
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<td>People</td>
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<td></td>
<td>People</td>
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</tr>
<tr>
<td>TORNADO</td>
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<td>WATER SUPPLY CONTAMINATION</td>
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<tr>
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<td>RADIOLOGICAL (FIXED SITE)</td>
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</table>

Cattaraugus County
Multi-Jurisdictional Hazard Mitigation Plan

Appendix G - HAZNY

Page 185 of 374
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 Superintendent analyzed hazards potentially affecting the Town of Leon. 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:

<table>
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<tr>
<th>Hazard</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLOOD</td>
<td>289</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
<td>267</td>
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<tr>
<td>SEVERE STORMS</td>
<td>262</td>
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<tr>
<td>EPIDEMIC</td>
<td>258</td>
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<tr>
<td>ICE STORM</td>
<td>257</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
<td>248</td>
</tr>
<tr>
<td>TORNADO</td>
<td>227</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
<td>224</td>
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<tr>
<td>CIVIL UNREST</td>
<td>211</td>
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<tr>
<td>HAZMAT (IN TRANSIT)</td>
<td>168</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
<td>159</td>
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<tr>
<td>LANDSLIDE</td>
<td>134</td>
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<tr>
<td>EXPLOSION</td>
<td>130</td>
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<td>TERRORISM - BIOLOGICAL</td>
<td>107</td>
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<td>TERRORISM - CHEMICAL</td>
<td>107</td>
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<tr>
<td>TERRORISM - RADIOLOGICAL</td>
<td>107</td>
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<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>107</td>
</tr>
<tr>
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<td>44</td>
</tr>
<tr>
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<td>44</td>
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<td>44</td>
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<td>44</td>
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<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>44</td>
</tr>
</tbody>
</table>

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, LANDSUBLINSE, RADIOLOGICAL (FIXED SITE), RADIOLOGICAL (IN TRANSIT)

EARTHQUAKE: 159, Low Hazard

Potentially 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

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR WITH NO WARNING*</th>
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<tbody>
<tr>
<td>WILDFIRE / DROUGHT</td>
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<tr>
<td>EPIDEMIC</td>
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<tr>
<td>TORNADO</td>
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<tr>
<td>CIVIL UNREST</td>
</tr>
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</tr>
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</tr>
<tr>
<td>LANDSLIDE</td>
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<tr>
<td>EXPLOSION</td>
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<tr>
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<tr>
<td>TERRORISM - RADIOLOGICAL</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
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</table>

* No warning was selected from the Onset Tab.

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR MOST OFTEN*</th>
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<tr>
<td>FLOOD</td>
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<td>SEVERE STORMS</td>
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<td>ICE STORM</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
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<td>TRANS ACCIDENT</td>
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*A frequent event was selected on frequency Tab.
Figure 1. Chart of Hazards vs. Ratings
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<th>Hazard Analysis Matrix - Town of Leon</th>
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<tr>
<td><strong>SCOPE</strong></td>
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<tr>
<td>Potential Area Of Impact</td>
</tr>
<tr>
<td>hazard rating</td>
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<tr>
<td>Hazard</td>
</tr>
<tr>
<td>FLOOD</td>
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HAZNY

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<tr>
<td>SEVERE STORMS</td>
<td>246</td>
</tr>
<tr>
<td>FLOOD</td>
<td>240</td>
</tr>
<tr>
<td>ICE STORM</td>
<td>214</td>
</tr>
<tr>
<td>TORNADO</td>
<td>210</td>
</tr>
<tr>
<td>ICE JAM</td>
<td>204</td>
</tr>
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<td>LANDSLIDE</td>
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<tr>
<td>EXPLOSION</td>
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<td>107</td>
</tr>
<tr>
<td>DAM FAILURE</td>
<td>44</td>
</tr>
</tbody>
</table>

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

LANDSUBLISION: 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 Superintendent analyzed hazards potentially affecting the Town of Lyndon. 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 Highway Superintendent rated the 23 hazards as follows:

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<td>TERRORISM RADIOLOGICAL</td>
<td>143</td>
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<tr>
<td>TERRORISM BIOLOGICAL</td>
<td>107</td>
</tr>
</tbody>
</table>

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  
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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

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WINTER STORM (SEVERE): 320, Moderately High Hazard

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<td>Two to Three Days</td>
</tr>
<tr>
<td>Recovery Time:</td>
<td>Three Days to One Week</td>
</tr>
<tr>
<td>Impact:</td>
<td>Serious Injury or Death is Likely, but not in Large Numbers</td>
</tr>
<tr>
<td></td>
<td>Moderate Damage to Private Property</td>
</tr>
<tr>
<td></td>
<td>Severe Structural Damage to Public Facilities</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR WITH NO WARNING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>WINTER STORM (SEVERE)</td>
</tr>
<tr>
<td>FLOOD</td>
</tr>
<tr>
<td>ICE STORM</td>
</tr>
<tr>
<td>ICE JAM</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
</tr>
<tr>
<td>DAM FAILURE</td>
</tr>
<tr>
<td>TORNADO</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
</tr>
<tr>
<td>CIVIL UNREST</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
</tr>
<tr>
<td>LANDSLIDE</td>
</tr>
<tr>
<td>EPIDEMIC</td>
</tr>
<tr>
<td>LANDSUBLISION</td>
</tr>
<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
</tr>
<tr>
<td>TERRORISM - BIOLOGICAL</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
</tr>
<tr>
<td>TERRORISM - RADIOLOGICAL</td>
</tr>
</tbody>
</table>

* 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

<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Potential Area Of Impact</td>
<td>Cascade Effect</td>
<td>Frequency</td>
<td>People</td>
<td>Private Property</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
<td>320</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>FLOOD</td>
<td>256</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>ICE STORM</td>
<td>254</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>ICE JAM</td>
<td>246</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
<td>240</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>DAM FAILURE</td>
<td>214</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>TORNADO</td>
<td>189</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
<td>189</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>174</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>164</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
<td>158</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>EXPLOSION</td>
<td>152</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
<td>152</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>CIVIL UNREST</td>
<td>143</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
<td>143</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>LANDSLIDE</td>
<td>119</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>EPIDEMIC</td>
<td>107</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>LANDSUBSIDENCE</td>
<td>107</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
<td>107</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>107</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>TERRORISM - BIOLOGICAL</td>
<td>107</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
<td>107</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
<tr>
<td>TERRORISM - RADIOLOGICAL</td>
<td>107</td>
<td>Single Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Small #’s</td>
</tr>
</tbody>
</table>
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 Superintendent analyzed hazards potentially affecting the Town of Mansfield. 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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICE STORM</td>
<td>221</td>
</tr>
<tr>
<td>LANDSLIDE</td>
<td>216</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
<td>200</td>
</tr>
<tr>
<td>FLOOD</td>
<td>194</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
<td>192</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
<td>188</td>
</tr>
<tr>
<td>TORNADO</td>
<td>172</td>
</tr>
<tr>
<td>CIVIL UNREST</td>
<td>107</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
<td>107</td>
</tr>
<tr>
<td>EPIDEMIC</td>
<td>107</td>
</tr>
<tr>
<td>EXPLOSION</td>
<td>107</td>
</tr>
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<td>HAZMAT (FIXED SITE)</td>
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<td>107</td>
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<td>WATER SUPPLY CONTAMINATION</td>
<td>107</td>
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<td>ICE JAM</td>
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<td>LANDSUSBIDENCE</td>
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<td>DAM FAILURE</td>
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<td>RADIOLOGICAL (FIXED SITE)</td>
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<td>44</td>
</tr>
<tr>
<td>ICE JAM</td>
<td>72</td>
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<tr>
<td>LANDSUSBIDENCE</td>
<td>58</td>
</tr>
<tr>
<td>DAM FAILURE</td>
<td>44</td>
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<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
<td>44</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>44</td>
</tr>
</tbody>
</table>

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
**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
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
<table>
<thead>
<tr>
<th>Hazard Analysis Matrix - Town of Mansfield</th>
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</thead>
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<table>
<thead>
<tr>
<th>Hazard</th>
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<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
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<tbody>
<tr>
<td></td>
<td>Potential Area Of Impact</td>
<td>Cascade Effect</td>
<td>Frequency</td>
<td>People</td>
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<td>ICE STORM</td>
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<td>LANDSLIDE</td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>WILDFIRE / DROUGHT</td>
<td>200</td>
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<tr>
<td>FLOOD</td>
<td>194</td>
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<td></td>
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<tr>
<td>SEVERE STORMS</td>
<td>192</td>
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<tr>
<td>WINTER STORM (SEVERE)</td>
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<tr>
<td>TORNADO</td>
<td>172</td>
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<td>CIVIL UNREST</td>
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<td>EARTHQUAKE</td>
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<td>HAZMAT (FIXED SITE)</td>
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<td>TERRORISM-CHEMICAL</td>
<td>107</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>TERRORISM-RADIOLOGICAL</td>
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<td></td>
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</tr>
<tr>
<td>TRANS ACCIDENT</td>
<td>107</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
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<tr>
<td>ICE JAM</td>
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<td>LANDSUBSIDENCE</td>
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<tr>
<td>DAM FAILURE</td>
<td>44</td>
<td></td>
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<tr>
<td>RADIOLICAL (FIXED SITE)</td>
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<td></td>
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<tr>
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<td>44</td>
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Cattaraugus County
Multi-Jurisdictional Hazard Mitigation Plan
Appendix G - HAZNY
Page 244 of 374
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 Superintendent analyzed hazards potentially affecting the Town of Olean. 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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
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<tbody>
<tr>
<td>EARTHQUAKE</td>
<td>238</td>
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<tr>
<td>EXPLOSION</td>
<td>235</td>
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<tr>
<td>FLOOD</td>
<td>217</td>
</tr>
<tr>
<td>ICE JAM</td>
<td>217</td>
</tr>
<tr>
<td>ICE STORM</td>
<td>205</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
<td>203</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
<td>202</td>
</tr>
<tr>
<td>TORNADO</td>
<td>191</td>
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<tr>
<td>HAZMAT (IN TRANSIT)</td>
<td>189</td>
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<tr>
<td>TERRORISM - RADIOLOGICAL</td>
<td>186</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
<td>180</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>174</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
<td>172</td>
</tr>
<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
<td>170</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>169</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
<td>166</td>
</tr>
<tr>
<td>TERRORISM-BIOLOGICAL</td>
<td>163</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>159</td>
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<tr>
<td>LANDSUBSIDENCE</td>
<td>158</td>
</tr>
<tr>
<td>LANDSLIDE</td>
<td>152</td>
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<tr>
<td>EPIDEMIC</td>
<td>132</td>
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<tr>
<td>CIVIL UNREST</td>
<td>107</td>
</tr>
<tr>
<td>DAM FAILURE</td>
<td>107</td>
</tr>
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</table>

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

<table>
<thead>
<tr>
<th><strong>Potential Impact</strong>:</th>
<th>Throughout a Large Region</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cascade Effects</strong>:</td>
<td>Highly Likely</td>
</tr>
<tr>
<td><strong>Frequency</strong>:</td>
<td>A Rare Event</td>
</tr>
<tr>
<td><strong>Onset</strong>:</td>
<td>No Warning</td>
</tr>
<tr>
<td><strong>Hazard Duration</strong>:</td>
<td>Less Than One Day</td>
</tr>
<tr>
<td><strong>Recovery Time</strong>:</td>
<td>Three Days to One Week</td>
</tr>
<tr>
<td><strong>Impact</strong>:</td>
<td>• Serious Injury or Death to Large Numbers</td>
</tr>
<tr>
<td></td>
<td>• Severe Damage to Private Property</td>
</tr>
<tr>
<td></td>
<td>• Severe Structural Damage to Public Facilities</td>
</tr>
</tbody>
</table>
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
**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), LANDSUSCIDENCE, LANDSLIDE, CIVIL UNREST, DAM FAILURE

HAZMAT (FIXED SITE): 159, Low Hazard

Potential Impact: Throughout a Small Region
HAZNY – Town of Olean

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

Cattaraugus County
Multi-Jurisdictional Hazard Mitigation Plan

Page 8 of 10
**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

<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
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<tr>
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<td>Rating</td>
<td>Potential Area</td>
<td>Cascade Effect</td>
<td>Frequency</td>
<td>People</td>
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<td>EARTHQUAKE</td>
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<td>Single Location</td>
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<td>Injury or Death Unlikely</td>
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<td>EXPLOSION</td>
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<td>Several Individual Locations</td>
<td>Highly Likely</td>
<td>An Infrquent Event</td>
<td>Injury or Death Small #s</td>
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<td>FLOOD</td>
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<td>Small Region</td>
<td>Highly Likely</td>
<td>A Regular Event</td>
<td>Injury or Death Unlikely</td>
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<td>ICE JAM</td>
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<td>Large Region</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Unlikely</td>
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<td>ICE STORM</td>
<td>205</td>
<td>Large Region</td>
<td>Highly Likely</td>
<td>A Regular Event</td>
<td>Injury or Death Unlikely</td>
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<td>SEVERE STORMS</td>
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<td>Large Region</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>Injury or Death Unlikely</td>
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<tr>
<td>WINTER STORM (SEVERE)</td>
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<td>Small Region</td>
<td>Some Potential</td>
<td>A Regular Event</td>
<td>Injury or Death Unlikely</td>
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Cattaraugus County  
Multi-Jurisdictional Hazard Mitigation Plan  
Appendix G - HAZNY
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.

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The Results

The Highway Superintendent analyzed hazards potentially affecting the Town of Otto. 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
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The Group rated the 23 hazards as follows:

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<td>DAM FAILURE</td>
<td>44</td>
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</table>

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

LANDSUBLISION: 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

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<tr>
<th>Hazard</th>
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<td>ICE JAM</td>
<td>99</td>
</tr>
<tr>
<td>DAM FAILURE</td>
<td>44</td>
</tr>
</tbody>
</table>

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*

<table>
<thead>
<tr>
<th>LANDSLIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TORNADO</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
</tr>
<tr>
<td>FLOOD</td>
</tr>
<tr>
<td>TERRORISM - BIOLOGICAL</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
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<tr>
<td>TERRORISM - RADIOLOGICAL</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
</tr>
<tr>
<td>CIVIL UNREST</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
</tr>
<tr>
<td>EPIDEMIC</td>
</tr>
<tr>
<td>EXPLOSION</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
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<tr>
<td>LANDSUBSIDENCE</td>
</tr>
<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
</tr>
</tbody>
</table>

* 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

<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Potential Area of Impact</td>
<td>Cascade Effect</td>
<td>Frequency</td>
<td>People</td>
<td>Private Property</td>
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<td>WINTER STORM (SEVERE)</td>
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<td></td>
<td></td>
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<tr>
<td>LANDSLIDE</td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>ICE STORM</td>
<td>246</td>
<td></td>
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<td></td>
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<tr>
<td>TRANS ACCIDENT</td>
<td>202</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
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<td>SEVERE STORMS</td>
<td>186</td>
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<tr>
<td>FLOOD</td>
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<td>EARTHQUAKE</td>
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<td>EPIDEMIC</td>
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<td>ICE JAM</td>
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<tr>
<td>DAM FAILURE</td>
<td>44</td>
<td></td>
<td></td>
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</tbody>
</table>
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 Superintendent analyzed hazards potentially affecting the Town of Perrysburg. 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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLOOD</td>
<td>293</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
<td>267</td>
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<tr>
<td>WINTER STORM (SEVERE)</td>
<td>257</td>
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<tr>
<td>ICE STORM</td>
<td>236</td>
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<tr>
<td>TRANS ACCIDENT</td>
<td>224</td>
</tr>
<tr>
<td>WILDFIRE/DROUGHT</td>
<td>221</td>
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<tr>
<td>HAZMAT (IN TRANSIT)</td>
<td>202</td>
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<tr>
<td>TORNADO</td>
<td>198</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
<td>160</td>
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<tr>
<td>LANDSLIDE</td>
<td>151</td>
</tr>
<tr>
<td>ICE JAM</td>
<td>150</td>
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<tr>
<td>DAM FAILURE</td>
<td>149</td>
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<td>WATER SUPPLY CONTAMINATION</td>
<td>140</td>
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<td>135</td>
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<td>EPIDEMIC</td>
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</tr>
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<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>44</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR WITH NO WARNING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANS ACCIDENT</td>
</tr>
<tr>
<td>WILDFIRE/DROUGHT</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
</tr>
<tr>
<td>LANDSLIDE</td>
</tr>
<tr>
<td>DAM FAILURE</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
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<tr>
<td>EXPLOSION</td>
</tr>
<tr>
<td>CIVIL UNREST</td>
</tr>
<tr>
<td>TERRORISM-BIOLOGICAL</td>
</tr>
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<td>TERRORISM-CHEMICAL</td>
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<tr>
<td>TERRORISM-RADIOLOGICAL</td>
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* No warning was selected from the Onset Tab.

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR MOST OFTEN*</th>
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<tbody>
<tr>
<td>FLOOD</td>
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<tr>
<td>SEVERE STORMS</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
</tr>
<tr>
<td>ICE STORM</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
</tr>
<tr>
<td>WILDFIRE/DROUGHT</td>
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</table>

*A frequent event was selected on frequency Tab.
Figure 1. Chart of Hazards vs. Ratings
# Hazard Analysis Matrix - Town of Perrysburg

<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Potential Area Of Impact</td>
<td>Cascade Effect</td>
<td>Frequency</td>
<td>People</td>
<td>Private Property</td>
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<tr>
<td>FLOOD</td>
<td>293</td>
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<tr>
<td>ICE STORM</td>
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<td>TRANS ACCIDENT</td>
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<td>EARTHQUAKE</td>
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<tr>
<td>LANDSLIDE</td>
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<td>ICE JAM</td>
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<tr>
<td>DAM FAILURE</td>
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<tr>
<td>TERRORISM-RADIOLOGICAL</td>
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<tr>
<td>LANDSUSSIDENCE</td>
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<td>HAZMAT (FIXED SITE)</td>
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</tbody>
</table>
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 Superintendent analyzed hazards potentially affecting the Town of Persia. 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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>TERRORISM - BIOLOGICAL</td>
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<tr>
<td>TERRORISM - RADIOLOGICAL</td>
<td>285</td>
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<tr>
<td>FLOOD</td>
<td>278</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
<td>274</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
<td>269</td>
</tr>
<tr>
<td>ICE STORM</td>
<td>249</td>
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<td>LANDSLIDE</td>
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<td>TORNADO</td>
<td>240</td>
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<td>WINTER STORM (SEVERE)</td>
<td>238</td>
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<tr>
<td>WILDFIRE / DROUGHT</td>
<td>230</td>
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<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>214</td>
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<td>LANDSUBSIDENCE</td>
<td>212</td>
</tr>
<tr>
<td>ICE JAM</td>
<td>210</td>
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<tr>
<td>DAM FAILURE</td>
<td>208</td>
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<tr>
<td>HAZMAT (IN TRANSIT)</td>
<td>196</td>
</tr>
<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
<td>194</td>
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<tr>
<td>EARTHQUAKE</td>
<td>183</td>
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<tr>
<td>HAZMAT (FIXED SITE)</td>
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<td>WATER SUPPLY CONTAMINATION</td>
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<td>TRANS ACCIDENT</td>
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<td>EXPLOSION</td>
<td>146</td>
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<tr>
<td>EPIDEMIC</td>
<td>136</td>
</tr>
<tr>
<td>CIVIL UNREST</td>
<td>79</td>
</tr>
</tbody>
</table>

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

Town of Persia
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*

<table>
<thead>
<tr>
<th>Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>TERRORISM - BIOLOGICAL</td>
</tr>
<tr>
<td>TERRORISM - RADILOGICAL</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
</tr>
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<td>LANDSLIDE</td>
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<tr>
<td>TORNADO</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
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<tr>
<td>LANDSUBSIDENCE</td>
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<tr>
<td>DAM FAILURE</td>
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<tr>
<td>HAZMAT (IN TRANSIT)</td>
</tr>
<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
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<td>HAZMAT (FIXED SITE)</td>
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<tr>
<td>TRANS ACCIDENT</td>
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<tr>
<td>EXPLOSION</td>
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</table>

* No warning was selected from the Onset Tab.

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

<table>
<thead>
<tr>
<th>Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>TERRORISM - BIOLOGICAL</td>
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<tr>
<td>TERRORISM - RADILOGICAL</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
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*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

<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Potential Area Of Impact</td>
<td>Cascade Effect Frequency</td>
<td>People Injury or Death</td>
<td>Public Facilities Damage</td>
<td>Warning People Injured or Death Any Extent Damage</td>
</tr>
<tr>
<td>TERRORISM - BIOLOGICAL</td>
<td>Single Location</td>
<td>Some Potential</td>
<td>A Rare Event</td>
<td>Injury or Death Small</td>
<td>Severe Damage</td>
</tr>
<tr>
<td>TERRORISM - RADIOLOGICAL</td>
<td>Single Location</td>
<td>Some Potential</td>
<td>A Rare Event</td>
<td>Injury or Death Small</td>
<td>Severe Damage</td>
</tr>
<tr>
<td>FLOOD</td>
<td>Single Location</td>
<td>Some Potential</td>
<td>A Regular Event</td>
<td>Injury or Death Small</td>
<td>Severe Damage</td>
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<td>SEVERE STORMS</td>
<td>Single Location</td>
<td>Some Potential</td>
<td>A Regular Event</td>
<td>Injury or Death Small</td>
<td>Severe Damage</td>
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<td>ICE STORM</td>
<td>Single Location</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury or Death Small</td>
<td>Severe Damage</td>
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<td>LANDSLIDE</td>
<td>Single Location</td>
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<td>Injury or Death Small</td>
<td>Severe Damage</td>
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<td>ICE JAM</td>
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<td>Severe Damage</td>
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<td>DAM FAILURE</td>
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<td>Severe Damage</td>
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<td>WATER SUPPLY CONTAMINATION</td>
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<td>TRANS ACCIDENT</td>
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<td>Severe Damage</td>
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<td>CIVIL UNREST</td>
<td>Single Location</td>
<td>Some Potential</td>
<td>A Frequent Event</td>
<td>Injury or Death Small</td>
<td>Severe Damage</td>
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</table>

Cattaraugus County
Multi-Jurisdictional Hazard Mitigation Plan

Appendix G - HAZNY

Page 303 of 374
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 Superintendent analyzed hazards potentially affecting the Town of South Valley. 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 24 hazards as follows:

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<th>Hazard</th>
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<tbody>
<tr>
<td>FLOOD</td>
<td>265</td>
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<tr>
<td>SEVERE STORMS</td>
<td>233</td>
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<td>177</td>
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<td>EXPLOSION</td>
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<td>LANDSLIDE</td>
<td>172</td>
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<td>162</td>
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<td>TRANS ACCIDENT</td>
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</tr>
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</table>

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, LANDSUNKSIDE, 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

<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
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<tbody>
<tr>
<td></td>
<td>Rating</td>
<td>Potential Area Of Impact</td>
<td>Cascade Effect</td>
<td>Frequency</td>
<td>People</td>
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<td>Highly Likely</td>
<td>A Rare Event</td>
<td>A Rare Event</td>
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<td>SEVERE STORMS</td>
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<td>Several Individual Location</td>
<td>Highly Likely</td>
<td>A Rare Event</td>
<td>A Rare Event</td>
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<td>WINTER STORM (SEVERE)</td>
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<td>Some Potential</td>
<td>A Regular Event</td>
<td>A Regular Event</td>
</tr>
<tr>
<td>ICE STORM</td>
<td>212</td>
<td>Large Region</td>
<td>Some Potential</td>
<td>An Infrequent Event</td>
<td>An Infrequent Event</td>
</tr>
<tr>
<td>ICE JAM</td>
<td>198</td>
<td>Large Region</td>
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</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
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<td>182</td>
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<td>EXPLOSION</td>
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<td>LANDSLIDE</td>
<td>172</td>
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<td>Some Potential</td>
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</tr>
<tr>
<td>TORNADO</td>
<td>162</td>
<td>Large Region</td>
<td>Some Potential</td>
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</tr>
<tr>
<td>TRANS ACCIDENT</td>
<td>154</td>
<td>Large Region</td>
<td>Some Potential</td>
<td>A Rare Event</td>
<td>A Rare Event</td>
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<td>WATER SUPPLY CONTAMINATION</td>
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<td>A Regular Event</td>
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<td>EARTHQUAKE</td>
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<td>Large Region</td>
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<td>LANDSBSIDENCE</td>
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<tr>
<td>ICE JAM</td>
<td>126</td>
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<tr>
<td>TERRORISM - RADIOLOGICAL</td>
<td>124</td>
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<tr>
<td>WILDFIRE / DROUGHT</td>
<td>124</td>
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<tr>
<td>TERRORISM - BIOLOGICAL</td>
<td>116</td>
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<tr>
<td>TERRORISM - CHEMICAL</td>
<td>116</td>
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<tr>
<td>CIVIL UNREST</td>
<td>107</td>
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<td>DAM FAILURE</td>
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<td>EARTHQUAKE</td>
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<td>EXPLOSION</td>
<td>107</td>
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<td>HAZMAT (FIXED SITE)</td>
<td>107</td>
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<td>HAZMAT (IN TRANSIT)</td>
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<td>107</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>107</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Throughout a Small Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects</td>
<td>Some Potential</td>
</tr>
<tr>
<td>Frequency</td>
<td>A Frequent Event</td>
</tr>
<tr>
<td>Onset</td>
<td>Several Hours Warning</td>
</tr>
<tr>
<td>Hazard Duration</td>
<td>Two to Three Days</td>
</tr>
<tr>
<td>Recovery Time</td>
<td>Three Days to One Week</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Several Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects</td>
<td>Some Potential</td>
</tr>
<tr>
<td>Frequency</td>
<td>An Infrequent Event</td>
</tr>
<tr>
<td>Onset</td>
<td>No Warning</td>
</tr>
<tr>
<td>Hazard Duration</td>
<td>More Than One Week</td>
</tr>
<tr>
<td>Recovery Time</td>
<td>More Than Two Weeks</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Several Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects</td>
<td>Some Potential</td>
</tr>
<tr>
<td>Frequency</td>
<td>A Frequent Event</td>
</tr>
<tr>
<td>Onset</td>
<td>Several Hours Warning</td>
</tr>
<tr>
<td>Hazard Duration</td>
<td>One Day</td>
</tr>
<tr>
<td>Recovery Time</td>
<td>Less Than One Day</td>
</tr>
</tbody>
</table>

**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 / DRIOGHT, 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
LANDSUDBSIDE
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
<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
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<td>HAZMAT (FIXED SITE)</td>
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</table>
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 Superintendent analyzed hazards potentially affecting the Village of Cattaraugus. 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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANDSLIDE</td>
<td>316</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
<td>282</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
<td>278</td>
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<tr>
<td>TERRORISM-CHEMICAL</td>
<td>211</td>
</tr>
<tr>
<td>FLOOD</td>
<td>201</td>
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<tr>
<td>TERRORISM-RADIOLOGICAL</td>
<td>194</td>
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<td>LANDSUBSIDENCE</td>
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<tr>
<td>ICE STORM</td>
<td>158</td>
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<td>TORNADO</td>
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<td>WATER SUPPLY CONTAMINATION</td>
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<td>WILDFIRE / DROUGHT</td>
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<td>CIVIL UNREST</td>
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<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>44</td>
</tr>
</tbody>
</table>

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, RADIOLGICAL (FIXED SITE), RADIOLGICAL (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

<table>
<thead>
<tr>
<th>Potential Impact:</th>
<th>Single Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects:</td>
<td>Highly Unlikely</td>
</tr>
<tr>
<td>Frequency:</td>
<td>A Rare Event</td>
</tr>
<tr>
<td>Onset:</td>
<td>No Warning</td>
</tr>
<tr>
<td>Hazard Duration:</td>
<td>Less Than One Day</td>
</tr>
<tr>
<td>Recovery Time:</td>
<td>Less Than One Day</td>
</tr>
<tr>
<td>Impact:</td>
<td></td>
</tr>
<tr>
<td>• Serious Injury or Death Unlikely</td>
<td></td>
</tr>
<tr>
<td>• Little or No Damage to Private Property</td>
<td></td>
</tr>
<tr>
<td>• Little or No Structural Damage to Public Facilities</td>
<td></td>
</tr>
</tbody>
</table>

HAZMAT (IN TRANSIT): 107, Low Hazard

<table>
<thead>
<tr>
<th>Potential Impact:</th>
<th>Single Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects:</td>
<td>Highly Unlikely</td>
</tr>
<tr>
<td>Frequency:</td>
<td>A Rare Event</td>
</tr>
<tr>
<td>Onset:</td>
<td>No Warning</td>
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<td>Hazard Duration:</td>
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<td>Recovery Time:</td>
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<td>Impact:</td>
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<tr>
<td>• Serious Injury or Death Unlikely</td>
<td></td>
</tr>
<tr>
<td>• Little or No Damage to Private Property</td>
<td></td>
</tr>
<tr>
<td>• Little or No Structural Damage to Public Facilities</td>
<td></td>
</tr>
</tbody>
</table>

TRANS ACCIDENT: 107, Low Hazard

<table>
<thead>
<tr>
<th>Potential Impact:</th>
<th>Single Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects:</td>
<td>Highly Unlikely</td>
</tr>
<tr>
<td>Frequency:</td>
<td>A Rare Event</td>
</tr>
<tr>
<td>Onset:</td>
<td>No Warning</td>
</tr>
<tr>
<td>Hazard Duration:</td>
<td>Less Than One Day</td>
</tr>
<tr>
<td>Recovery Time:</td>
<td>Less Than One Day</td>
</tr>
<tr>
<td>Impact:</td>
<td></td>
</tr>
<tr>
<td>• Serious Injury or Death Unlikely</td>
<td></td>
</tr>
<tr>
<td>• Little or No Damage to Private Property</td>
<td></td>
</tr>
<tr>
<td>• Little or No Structural Damage to Public Facilities</td>
<td></td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR WITH NO WARNING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANDSLIDE</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
</tr>
<tr>
<td>TERRORISM-CHEMICAL</td>
</tr>
<tr>
<td>FLOOD</td>
</tr>
<tr>
<td>TERRORISM-RADIOLOGICAL</td>
</tr>
<tr>
<td>TERRORISM-BIOLOGICAL</td>
</tr>
<tr>
<td>LANDSUBSIDENCE</td>
</tr>
<tr>
<td>ICE STORM</td>
</tr>
<tr>
<td>TORNADO</td>
</tr>
<tr>
<td>WATER SUPPLY CONTAMINATION</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
</tr>
<tr>
<td>CIVIL UNREST</td>
</tr>
<tr>
<td>ICE JAM</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
</tr>
<tr>
<td>EPIDEMIC</td>
</tr>
<tr>
<td>EXPLOSION</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
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<tr>
<td>TRANS ACCIDENT</td>
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</table>

* No warning was selected from the Onset Tab.

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR MOST OFTEN*</th>
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</thead>
<tbody>
<tr>
<td>LANDSLIDE</td>
</tr>
<tr>
<td>WINTER STORM (SEVERE)</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
</tr>
</tbody>
</table>

*A frequent event was selected on frequency Tab.
Figure 1. Chart of Hazards vs. Ratings
### Hazard Analysis Matrix - Village of Cattaraugus

<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landslide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winter Storm (Severe)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Severe Storms</td>
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<td></td>
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<tr>
<td>Terrorism-Chemical</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Flood</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Terrorism-Radiological</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Terrorism-Biological</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landsubsidence</td>
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<td></td>
</tr>
<tr>
<td>Ice Storm</td>
<td></td>
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<tr>
<td>Tornado</td>
<td></td>
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<tr>
<td>Water Supply Contamination</td>
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<tr>
<td>Wildfire / Drought</td>
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<tr>
<td>Civil Unrest</td>
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<tr>
<td>Ice Jam</td>
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<td>Earthquake</td>
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<tr>
<td>Epidemic</td>
<td></td>
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<td></td>
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<tr>
<td>Explosion</td>
<td></td>
<td></td>
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<tr>
<td>HAZMAT (In Transit)</td>
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</tr>
<tr>
<td>Trans Accident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HAZMAT (Fixed Site)</td>
<td></td>
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</tr>
<tr>
<td>Dam Failure</td>
<td></td>
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<tr>
<td>Radiological (Fixed Site)</td>
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<td></td>
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<tr>
<td>Radiological (In Transit)</td>
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<td></td>
<td></td>
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</tbody>
</table>

*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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>WINTER STORM (SEVERE)</td>
<td>300</td>
</tr>
<tr>
<td>LANDSUBSIDENCE</td>
<td>284</td>
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<tr>
<td>ICE STORM</td>
<td>276</td>
</tr>
<tr>
<td>FLOOD</td>
<td>258</td>
</tr>
<tr>
<td>SEVERE STORMS</td>
<td>242</td>
</tr>
<tr>
<td>DAM FAILURE</td>
<td>231</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
<td>225</td>
</tr>
<tr>
<td>TORNADO</td>
<td>220</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
<td>210</td>
</tr>
<tr>
<td>WILDFIE / DROUGHT</td>
<td>165</td>
</tr>
<tr>
<td>ICE JAM</td>
<td>164</td>
</tr>
<tr>
<td>EPIDEMIC</td>
<td>152</td>
</tr>
<tr>
<td>EXPLOSION</td>
<td>140</td>
</tr>
<tr>
<td>LANDSLIDE</td>
<td>139</td>
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<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>139</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>132</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
<td>130</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>124</td>
</tr>
<tr>
<td>TERRORISM-CHEMICAL</td>
<td>117</td>
</tr>
<tr>
<td>TERRORISM-BIOLOGICAL</td>
<td>107</td>
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<tr>
<td>TERRORISM-RADIOLOGICAL</td>
<td>107</td>
</tr>
<tr>
<td>CIVIL UNREST</td>
<td>72</td>
</tr>
<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
<td>44</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Single Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects</td>
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<td>Frequency</td>
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<td>Hazard Duration</td>
<td>Less Than One Day</td>
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<tr>
<td>Recovery Time</td>
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<tr>
<td>Impact</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Serious Injury or Death Unlikely</td>
</tr>
<tr>
<td></td>
<td>Severe Damage to Private Property</td>
</tr>
<tr>
<td></td>
<td>Little or No Structural Damage to Public Facilities</td>
</tr>
</tbody>
</table>

WATER SUPPLY CONTAMINATION: 139, Low Hazard

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Several Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects</td>
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<tr>
<td>Frequency</td>
<td>An Infrequent Event</td>
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<tr>
<td>Onset</td>
<td>Several Hours Warning</td>
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<td>Hazard Duration</td>
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<tr>
<td>Recovery Time</td>
<td>Less Than One Day</td>
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<tr>
<td>Impact</td>
<td></td>
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<tr>
<td></td>
<td>Serious Injury or Death Unlikely</td>
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<tr>
<td></td>
<td>Little or No Damage to Private Property</td>
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<tr>
<td></td>
<td>Little or No Structural Damage to Public Facilities</td>
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HAZMAT (FIXED SITE): 132, Low Hazard

<table>
<thead>
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<th>Potential Impact</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Cascade Effects</td>
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</tr>
<tr>
<td>Frequency</td>
<td>A Rare Event</td>
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<tr>
<td>Onset</td>
<td>No Warning</td>
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<tr>
<td>Hazard Duration</td>
<td>Less Than One Day</td>
</tr>
<tr>
<td>Recovery Time</td>
<td>Less Than One Day</td>
</tr>
<tr>
<td>Impact</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Serious Injury or Death is Likely, but not in Large Numbers</td>
</tr>
<tr>
<td></td>
<td>Little or No Damage to Private Property</td>
</tr>
<tr>
<td></td>
<td>Little or No Structural Damage to Public Facilities</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR WITH NO WARNING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANDSUBLENCE</td>
</tr>
<tr>
<td>ICE STORM</td>
</tr>
<tr>
<td>DAM FAILURE</td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
</tr>
<tr>
<td>TORNADO</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
</tr>
<tr>
<td>EPIDEMIC</td>
</tr>
<tr>
<td>EXPLOSION</td>
</tr>
<tr>
<td>LANDSLIDE</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
</tr>
<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
</tr>
<tr>
<td>TERRORISM-CHEMICAL</td>
</tr>
<tr>
<td>TERRORISM-BIOLOGICAL</td>
</tr>
<tr>
<td>TERRORISM-RADIOLOGICAL</td>
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</table>

* No warning was selected from the Onset Tab.

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR MOST OFTEN*</th>
</tr>
</thead>
<tbody>
<tr>
<td>WINTER STORM (SEVERE)</td>
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</table>

*A frequent event was selected on frequency Tab.
Figure 1. Chart of Hazards vs. Ratings
## Hazard Analysis Matrix - Village of Cattaraugus

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Potential Area Of Impact</th>
<th>Scope</th>
<th>Frequency</th>
<th>Impact</th>
<th>Onset</th>
<th>Duration</th>
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</thead>
<tbody>
<tr>
<td>LANDSLIDE</td>
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<td></td>
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<td>SEVERE STORMS</td>
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<tr>
<td>TERRORISM-CHEMICAL</td>
<td>High 321-400</td>
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<tr>
<td>FLOOD</td>
<td>High 321-400</td>
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<tr>
<td>TERRORISM-RADIOLOGICAL</td>
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<td>LANDSBSIDENCE</td>
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<td></td>
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<tr>
<td>ICE STORM</td>
<td>High 321-400</td>
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<tr>
<td>TORNADO</td>
<td>High 321-400</td>
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<tr>
<td>WATER SUPPLY CONTAMINATION</td>
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<tr>
<td>CIVIL UNREST</td>
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</tr>
<tr>
<td>ICE JAM</td>
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<tr>
<td>EPIDEMIC</td>
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<td>HAZMAT (IN TRANSIT)</td>
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<td></td>
</tr>
<tr>
<td>TRANS ACCIDENT</td>
<td>High 321-400</td>
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</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>High 321-400</td>
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<td>DAM FAILURE</td>
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<td>RADIIOLOGICAL (FIXED SITE)</td>
<td>High 321-400</td>
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<tr>
<td>RADIIOLOGICAL (IN TRANSIT)</td>
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</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
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<tbody>
<tr>
<td>WINTER STORM (SEVERE)</td>
<td>234</td>
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<tr>
<td>EPIDEMIC</td>
<td>226</td>
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<tr>
<td>ICE STORM</td>
<td>221</td>
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<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>220</td>
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<tr>
<td>HAZMAT (IN TRANSIT)</td>
<td>218</td>
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<tr>
<td>DAM FAILURE</td>
<td>205</td>
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<tr>
<td>TERRORISM CHEMICAL</td>
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<td>FLOOD</td>
<td>198</td>
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<td>SEVERE STORMS</td>
<td>195</td>
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<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>193</td>
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<tr>
<td>EARTHQUAKE</td>
<td>188</td>
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<tr>
<td>TERRORISM BIOLOGICAL</td>
<td>188</td>
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<tr>
<td>ICE JAM</td>
<td>182</td>
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<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>176</td>
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<tr>
<td>EXPLOSION</td>
<td>172</td>
</tr>
<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
<td>172</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
<td>172</td>
</tr>
<tr>
<td>LANDSLIDE</td>
<td>168</td>
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<tr>
<td>LAND SUBSIDENCE</td>
<td>158</td>
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<tr>
<td>TORNADO</td>
<td>149</td>
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<tr>
<td>TRANS ACCIDENT</td>
<td>139</td>
</tr>
<tr>
<td>CIVIL UNREST</td>
<td>119</td>
</tr>
</tbody>
</table>

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
<table>
<thead>
<tr>
<th>Hazard Type</th>
<th>Hazard Code</th>
<th>Hazard Level</th>
<th>Potential Impact</th>
<th>Cascade Effects</th>
<th>Frequency</th>
<th>Onset</th>
<th>Hazard Duration</th>
<th>Recovery Time</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICE STORM</td>
<td>221</td>
<td>Moderately Low Hazard</td>
<td>Throughout a Small Region</td>
<td>Highly Likely</td>
<td>An Infrequent Event</td>
<td>Several Hours Warning</td>
<td>Two to Three Days</td>
<td>Three Days to One Week</td>
<td>Serious Injury or Death is Likely, but not in Large Numbers</td>
</tr>
<tr>
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<td></td>
<td>Moderate Damage to Private Property</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Severe Structural Damage to Public Facilities</td>
</tr>
<tr>
<td>HAIZMAT (FIXED SITE)</td>
<td>220</td>
<td>Moderately Low Hazard</td>
<td>Single Location</td>
<td>Some Potential</td>
<td>An Infrequent Event</td>
<td>No Warning</td>
<td>More Than One Week</td>
<td>One to Two Weeks</td>
<td>Serious Injury or Death is Likely, but not in Large Numbers</td>
</tr>
<tr>
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<td></td>
<td>Moderate Damage to Private Property</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Moderate Structural Damage to Public Facilities</td>
</tr>
<tr>
<td>HAIZMAT (IN TRANSIT)</td>
<td>218</td>
<td>Moderately Low Hazard</td>
<td>Throughout a Small Region</td>
<td>Some Potential</td>
<td>An In frequent Event</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR WITH NO WARNING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPIDEMIC</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
</tr>
<tr>
<td>DAM FAILURE</td>
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<tr>
<td>TERRORISM CHEMICAL</td>
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<tr>
<td>SEVERE STORMS</td>
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<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
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<tr>
<td>EARTHQUAKE</td>
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<td>TERRORISM BIOLOGICAL</td>
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<td>WATER SUPPLY CONTAMINATION</td>
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<td>EXPLOSION</td>
</tr>
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<td>LANDSLIDE</td>
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<tr>
<td>LAND SUBSIDENCE</td>
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<tr>
<td>TRANS ACCIDENT</td>
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<tr>
<td>CIVIL UNREST</td>
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</table>

* No warning was selected from the Onset Tab.
Figure 1. Chart of Hazards vs. Ratings
# Hazard Analysis Matrix - Village of Little Valley

<table>
<thead>
<tr>
<th>Hazard</th>
<th>SCOPE</th>
<th>FREQUENCY</th>
<th>IMPACT</th>
<th>ONSET</th>
<th>DURATION</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Rating</td>
<td>Potential Area</td>
<td>Frequency</td>
<td>People</td>
<td>Private Property</td>
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<tr>
<td></td>
<td></td>
<td>Of Impact</td>
<td>Cascade</td>
<td>Frequency</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Single Location</td>
<td>High</td>
<td>321-400</td>
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<td>Several Individual Location</td>
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<td>A Rare Event</td>
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<td>Injury/Death Large #s</td>
<td>Injury/Death Extreme #s</td>
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<td>Injury/Death Large #s</td>
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<td>Little or No Damage</td>
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</tr>
</tbody>
</table>

Cattaraugus County
Multi-Jurisdictional Hazard Mitigation Plan

Appendix G - HAZNY

Page 362 of 374
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 Superintendent analyzed hazards potentially affecting the Village of South Dayton. 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:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rating</th>
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<tbody>
<tr>
<td>SEVERE STORMS</td>
<td>238</td>
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<tr>
<td>WINTER STORM (SEVERE)</td>
<td>236</td>
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<td>TORNADO</td>
<td>220</td>
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<tr>
<td>TRANS ACCIDENT</td>
<td>212</td>
</tr>
<tr>
<td>ICE STORM</td>
<td>202</td>
</tr>
<tr>
<td>WILDFIRE / DROUGHT</td>
<td>191</td>
</tr>
<tr>
<td>EARTHQUAKE</td>
<td>186</td>
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<tr>
<td>WATER SUPPLY CONTAMINATION</td>
<td>178</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
<td>162</td>
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<tr>
<td>EXPLOSION</td>
<td>158</td>
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<tr>
<td>HAZMAT (FIXED SITE)</td>
<td>158</td>
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<tr>
<td>EPIDEMIC</td>
<td>137</td>
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<tr>
<td>FLOOD</td>
<td>122</td>
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<tr>
<td>LANDSLIDE</td>
<td>119</td>
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<tr>
<td>TERRORISM - BIOLOGICAL</td>
<td>107</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
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<tr>
<td>TERRORISM - RADIOLOGICAL</td>
<td>107</td>
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<tr>
<td>ICE JAM</td>
<td>93</td>
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<td>CIVIL UNREST</td>
<td>58</td>
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<td>DAM FAILURE</td>
<td>44</td>
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<tr>
<td>LANDSUBSIDENCE</td>
<td>44</td>
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<tr>
<td>RADIOLOGICAL (FIXED SITE)</td>
<td>44</td>
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<tr>
<td>RADIOLOGICAL (IN TRANSIT)</td>
<td>44</td>
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</table>

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

<table>
<thead>
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<th>Potential Impact:</th>
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</thead>
<tbody>
<tr>
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<td>Frequency:</td>
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<tr>
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<td>Recovery Time:</td>
<td>One to Two Weeks</td>
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<td>Impact:</td>
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<td></td>
<td>Little or No Damage to Private Property</td>
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<tr>
<td></td>
<td>Little or No Structural Damage to Public Facilities</td>
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HAZMAT (IN TRANSIT): 162, Moderately Low Hazard

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</thead>
<tbody>
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<tr>
<td>Frequency:</td>
<td>A Rare Event</td>
</tr>
<tr>
<td>Onset:</td>
<td>No Warning</td>
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<tr>
<td>Hazard Duration:</td>
<td>Less Than One Day</td>
</tr>
<tr>
<td>Recovery Time:</td>
<td>One to Two Days</td>
</tr>
<tr>
<td>Impact:</td>
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<tr>
<td></td>
<td>Moderate Damage to Private Property</td>
</tr>
<tr>
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<td>Moderate Structural Damage to Public Facilities</td>
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</tbody>
</table>

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

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<td>Onset:</td>
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<td>Hazard Duration:</td>
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<tr>
<td>Recovery Time:</td>
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<tr>
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<td>Moderate Damage to Private Property</td>
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<tr>
<td></td>
<td>Little or No Structural Damage to Public Facilities</td>
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</table>
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

<table>
<thead>
<tr>
<th>Potential Impact:</th>
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<tbody>
<tr>
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<td>• Little or No Damage to Private Property</td>
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<td>• Little or No Structural Damage to Public Facilities</td>
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**Biggest Hazards**

<table>
<thead>
<tr>
<th>HAZARDS THAT OCCUR WITH NO WARNING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>TORNADO</td>
</tr>
<tr>
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<tr>
<td>WILDFIRE / DROUGHT</td>
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<tr>
<td>EARTHQUAKE</td>
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<tr>
<td>WATER SUPPLY CONTAMINATION</td>
</tr>
<tr>
<td>HAZMAT (IN TRANSIT)</td>
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<tr>
<td>EXPLOSION</td>
</tr>
<tr>
<td>HAZMAT (FIXED SITE)</td>
</tr>
<tr>
<td>LANDSLIDE</td>
</tr>
<tr>
<td>TERRORISM - BIOLOGICAL</td>
</tr>
<tr>
<td>TERRORISM - CHEMICAL</td>
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* No warning was selected from the Onset Tab.

<table>
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<tr>
<th>HAZARDS THAT OCCUR MOST OFTEN*</th>
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<td>SEVERE STORMS</td>
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*A frequent event was selected on frequency Tab.
Figure 1. Chart of Hazards vs. Ratings

![Chart of Hazards vs. Ratings](image-url)
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<th>Hazard</th>
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<th>ONSET</th>
<th>DURATION</th>
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<td>Injury/Death</td>
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<td>Some Potential</td>
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<td>A Frequent Event</td>
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