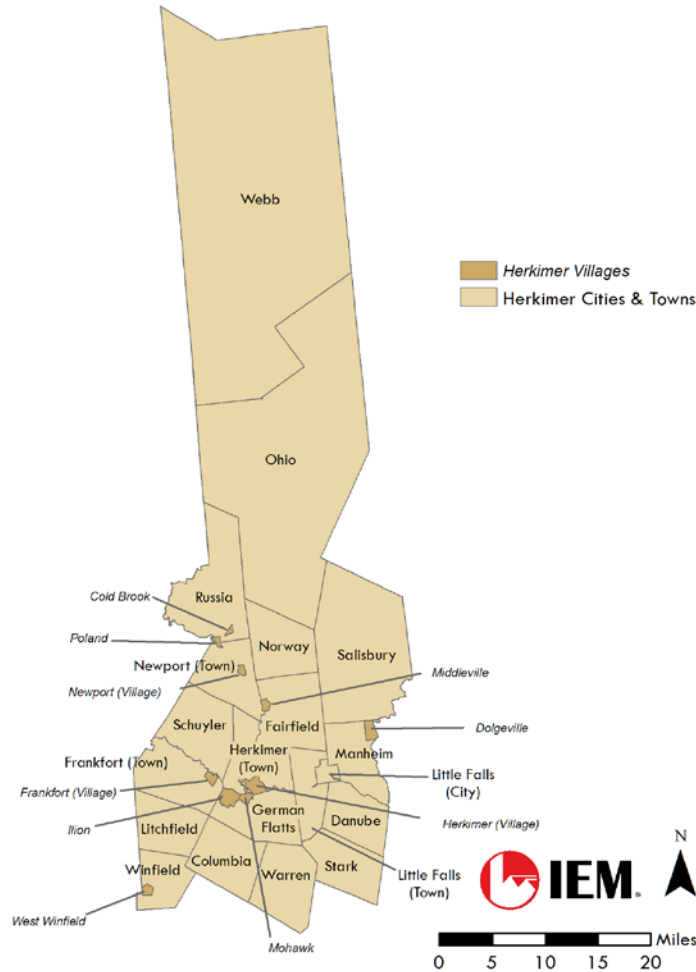


# ANNEX 1: HERKIMER COUNTY

**Herkimer County Multi-Jurisdictional Hazard Mitigation Plan**  
**109 Mary Street \* Suite 1310 \* Herkimer, NY 13350**



	<p><b>County Established: 1791</b></p>		<p><b>Land Area: 1,458 square miles</b></p>
	<p><b>2010 Population: 64,519</b></p>		<p><b>County Seat: Village of Herkimer</b></p>
	<p><b>Households: 26,324</b></p>		<p><b>Mitigation Focus: Flood</b></p>

## 1.1. Hazard Mitigation Plan Point of Contact

**Primary:**

Matthew Palumbo  
 Director  
 Emergency Services  
 71 Reservoir Road  
 Herkimer, NY 13350  
 Phone: 315-867-1212  
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 mpalumbo@herkimercounty.org

**Secondary:**

Scott Scherer, Undersheriff  
 Herkimer County  
 321 North Main Street  
 Herkimer, NY 13350  
 Phone: 315-867-1167  
 E-mail:  
 sscherer@herkimercounty.org



## 1.2. Jurisdiction Planning Process

Herkimer County followed the planning process described in **Section 2, Planning Process**. In addition to providing representation on the Herkimer County Hazard Mitigation Working Group (HMWG), the County supported the local planning process requirements by coordinating with representatives from other departments and agencies. Participants in the local planning activities include:

Name	Position/Title	Department/Agency
<b>Jim Wallace</b>	Administrator	Administration
<b>Christina Cain</b>	Director	Public Health
<b>Christopher Farber</b>	Sheriff	Sheriff's Office
<b>Kathy Fox</b>	Director	Office for the Aging
<b>Matt Palumbo</b>	Director	Emergency Services
<b>Bernard Peplinski</b>	Chair	County Legislature
<b>Gerry Smithson</b>	Manager	Soil & Water Conservation
<b>Stephanie Tyoe</b>	Senior Civil Engineer	Highway Department
<b>Diane Ward</b>	Emergency Preparedness	Public Health

The jurisdiction identified its chief hazard mitigation responsibility as providing oversight of the multi-jurisdictional hazard mitigation plan implementation and maintenance. The County also identified the following tasks as part of the mitigation planning process:

- Capabilities Assessment
- Hazard and Risk Assessment
- Review and Input for Plan Drafts
- Mitigation Strategy Development
- Mitigation Project Sponsor
- Coordination of Jurisdictional Planning Committee
- Plan Implementation and Monitoring

County planning participants met primarily as a group during HMWG workshops and, as needed, on their own to carry out the planning activities. Their activities included completing a series of worksheets that provided background information on the history of hazard risks and vulnerabilities, capabilities, and past mitigation efforts. Additional planning process documentation of the HMWG meetings is included in **Section 2, Planning Process**.

### 1.3. Jurisdiction Profile

The Herkimer County profile is presented in **Section 1, Introduction** as context to the entire plan. The following data summarizes the county’s geographic, demographic, economic and governance characteristics:

- Established: 1791
- Municipalities: 30
- Total Land Area: 1,458 square miles
- Percent of Total Land Area within the Adirondack Park: 61.8%
- Persons per Household: 2.45
- Persons per Square Mile: 45
- Median Age: 42

#### Population

- 1970 Population: 67,739
- 1980 Population: 66,714 (-1.5%)
- 1990 Population: 65,797 (-1.4%)
- 2000 Population: 64,427 (-2.1%)
- 2010 Population: 64,519 (-2.2%)
- 2015 (Estimate): 63,100 (-2.1%)

#### Economy

- 2015 Median Household Income: \$47,462
- 2015 Per Capita Income: \$28,930
- 2015 Percentage below Poverty: 14.6%
- 2010 Number of Businesses: 1,274
- Jan. 2017 Unemployment Rate: 6.6%
- 2015 Median house or condo value: \$99,525
- 2015 Most Common Business: Healthcare and Social Assistance (27%)

#### Governance

- County Legislature
- Legislators (17)
- Administrator
- County Clerk
- Deputy County Clerk
- County Attorney
- County Departments (26)

Population identified as 48% urban, 52% rural

**Source:**

[www.city-date.com](http://www.city-date.com)  
[www.census.com](http://www.census.com) – Quick Facts  
[www.apa.ny.gov/gis/stats/](http://www.apa.ny.gov/gis/stats/)

**Sources:**

[www.city-data.com](http://www.city-data.com)  
[www.census.com](http://www.census.com) – Quick Facts  
<https://fred.stlouisfed.org/series/hyherkourn>

**Source:**

[www.herkimercounty.org](http://www.herkimercounty.org)

### 1.4 Jurisdiction-Specific Hazard Event History

Herkimer County’s comprehensive hazard history is described in **Section 3.0, Hazard Identification and Risk Assessment**. The Storm Events Database is under the auspices of the National Center for Environmental Information (NCEI, formerly the National Center for Climactic Data, or NCEI) and maintained by the National Oceanic and Atmospheric Administration (NOAA). The database includes 1,055 recorded events that took place in the county between January 1, 1950, and November 30, 2016. Herkimer County was included in 21 presidentially-declared disasters and emergencies. The 14 declared disasters are listed in **Table Annex 1-a**.

*Table Annex 1-a: FEMA Declared Disasters, Herkimer County*

Declaration	Date	Hazard	Description
447	7/23/1974	Flood	Severe Storms and Flooding
515	7/21/1976	Flood	Severe Storms and Flooding
1095	1/24/1996	Flood	Severe Storms and Flooding
1244	9/11/1998	Severe Storms	NY Severe Weather September 7, 1998
1335	7/21/2000	Severe Storms	Severe Storms and Flooding
1391	9/11/2001	Fire	Fires and Explosion

Declaration	Date	Hazard	Description
1534	8/3/2004	Severe Storms	Severe Storms and Flooding
1650	7/1/2006	Severe Storms	Severe Storms and Flooding
1670	12/12/2006	Severe Storms	Severe Storms and Flooding
1993	6/10/2011	Severe Storms	Severe Storms, Flooding, Tornadoes, Straight-Line Winds
4020	8/11/2011	Hurricane	Hurricane Irene
4031	9/13/2011	Severe Storms	Remnants of Tropical Storm Lee
4129	7/12/2013	Flood	Severe Storms and Flooding
4180	7/8/2014	Severe Storms	Severe Storms and Flooding

The HMWG provided the following additional details about historic hazard events:

*Table Annex 1-b: Historic Hazard Events Identified by Herkimer County*

Hazard	Event
Flood	<b>FEMA 4129-DR-NY</b> - June-July 2013, Countywide; damage to highways, bridges and culverts, road closures. TOTAL COST: \$1,737,078.86 (FEMA-\$1,207,835.64; GOSR - \$390,057.22; FHWA - \$139,186.00). Likelihood of recurrence - 5 years
Flood	<b>FEMA 4020-DR-NY</b> - Hurricane Irene, Aug-Sept 2011; infrastructure damage, road closures. TOTAL COST: \$203,821± (FEMA \$152,865±, GOSR \$12,842; GOSR still pending \$38,114±)
Severe Weather	<b>FEMA 1993-DR-NY</b> - Severe Weather (countywide storms, flood, wind), April-May 2011; damage to roads and culverts, road closures; TOTAL COST: \$290,544,94 (FEMA \$249,038.52, SEMO \$41,506.42)
Severe Weather	<b>FEMA 1670-DR-NY</b> - Nov 16-17, 2006, Severe Weather (countywide storms and flood); damage to roads and culverts. TOTAL COST FEMA \$81,410
Severe Weather & Flood	<b>FEMA 1650-DR-NY</b> - June 26, 2006 and ongoing; damage to roads, culverts and bridges, road closures. TOTAL COST: FEMA \$345,131±

Key: FEMA: Federal Emergency Management Agency  
 GOSR: Governor’s Office of Storm Recovery  
 SEMO: State Emergency Management Organization

### 1.5. Hazard Impacts and Consequences

During the planning process, the County identified potential impacts and perceived consequences related to all hazards. Because most of the County’s previous disaster declarations resulted from flooding and repetitive losses in multiple jurisdictions, this hazard is the County’s primary focus. Although there is a potential for dam or levee failure to impact some communities within the county, there is no previous history of such an event. **Section 3, Hazard Identification and Risk Assessment** includes detailed descriptions of all hazards and their effects on each jurisdiction within the county.

**Table Annex 1-c: Hazard Impacts and Consequences, Herkimer County, New York**

Hazard	Mass Casualties	Transportation Infrastructure	Emergency Response	Communications	Property damage	Health and Medical	Water System	Utilities	Sewer System	Environment	Agricultural - Crops	Agricultural - Animals	Economic Impact	Civil Unrest	Commodity Shortage	Confidence in Government	Cultural or Social Assets	Other Municipal Buildings & Parks
<b>Natural Hazards</b>																		
Avalanche	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dam Failure	-	X	X	-	X	X	X	X		X	X	X	X	-	-	-	X	X
Drought	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Earthquake	-	X	-	X	-	-	X	-	-	-	-	-	-	X	-	X	X	-
Epidemic	X	-	X	-	-	X	-	-	-	-	-	-	-	X	-	X	-	-
Erosion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expansive Soils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Extreme Cold	-	-	X	-	X	-	-	X	-	-	X	X	-	-	-	-	-	-
Extreme Heat	-	X	X	X	-	X	X	X	-	-	X	X	X	-	X	-	-	-
Flood - Ice jam, riverine/stormwater	-	X	X	X	X	-	X	X	X	X	X	X	X	-	-	X	X	-
Hail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hurricane	-	X	X	X	X	-	-	X	-	-	-	-	X	-	-	-	X	-
Ice Storm	-	-	X	X	X	X	-	X	X	X	X	-	-	X	-	-	-	X
Landslide	-	X	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
Lightning	-	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-
Sea Level Rise	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Severe Wind	-	-	X	X	X	X	-	X	X	X	X	-	-	X	-	-	-	X
Severe Weather - thunderstorm/heavy rain	-	-	X	X	X	X	-	X	X	X	X	-	-	X	-	-	-	X
Severe Winter Weather	-	-	X	X	X	X	-	X	X	X	X	-	-	X	-	-	-	X
Storm Surge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subsidence	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tornado	-	-	X	X	X	X	-	X	X	X	X	-	-	X	-	-	-	X
Tsunami	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wildfire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Technological Hazard</b>																		
Transportation Accident	-	X	X	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-

Jurisdiction-specific impacts and consequences are described in detail in the jurisdictional annexes. Annexes with discussions of flood-related issues include Annex 9, Town of German Flatts; Annex 11, Village of Herkimer; Annex 12, Village of Ilion; and Annex 18, Village of Mohawk.

## 1.6. Hazard Risk Ranking

After developing hazard profiles and analyzing each for its impacts and consequences, the County planning group conducted a quantitative risk assessment for each hazard that considered location, probability of future occurrences, magnitude/severity, and significance. Numerical scores for each category were totaled to obtain an Overall Risk Score, which tied to these vulnerability classifications:

- Low: Minimal potential impact. Minimal property damage or loss of life expected.
- Medium: Moderate potential impact; moderate threat level to the general population and/or the built environment. The potential damage is more isolated and less costly than a widespread disaster.
- High: Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past.

**Table Annex 1-d: Hazard Index and Risk Analysis**

Hazard	Location	Probability of Future Occurrence	Magnitude/Severity	Significance	Overall Risk Score	Hazard Rating
<b>Avalanche</b>						
<b>Drought</b>	2	2	2	3	9	Medium/Low
<b>Earthquake</b>	1	1	1	1	4	Low
<b>Extreme Heat</b>	3	3	1	2	9	Medium/Low
<b>Flood: Dam/Levee Failure</b>	3	1	4	4	12	Medium
<b>Flood: Ice Jam</b>	3	3	2	3	11	Medium
<b>Flood: High Groundwater and Local Drainage</b>	2	3	2	3	10	Medium
<b>Flood: Riverine &amp; Flash Flood</b>	4	4	4	4	16	High
<b>Landslide</b>	1	1	1	1	4	Low
<b>Severe Weather: Hail</b>	1	4	1	2	8	Low
<b>Severe Weather: High Wind</b>	3	4	2	3	12	Medium
<b>Severe Weather: Lightning</b>	2	4	1	2	9	Medium/Low
<b>Severe Weather: Thunderstorm/Heavy Rain</b>	3	4	2	3	12	Medium
<b>Severe Weather: Winter Weather</b>	4	4	2	3	13	Medium
<b>Soil Hazards: Erosion</b>	3	3	1	1	8	Low
<b>Soil Hazards: Expansive Soils</b>	1	1	1	1	4	Low
<b>Soil Hazards: Subsidence</b>	1	1	1	1	4	Low
<b>Wildfire</b>	2	1	1	1	5	Low
<b>Epidemic</b>	2	1	1	1	5	Low
<b>Transportation Accident</b>	2	3	3	3	11	Medium

Based on the hazard risk scores, the County identified seven medium, medium/high, or high-risk hazards to which the jurisdiction is vulnerable: flood (i.e., dam/levee failure, ice jam, high groundwater/local drainage, riverine/flash flood); severe weather (i.e., high wind, thunderstorm/heavy rainfall, winter weather); and transportation accident. All other hazards are ranked as medium/low or low risk to the County.

The averaged Overall Risk Score (calculated on the summary scores of all jurisdictions) served as the basis for determining whether a vulnerability assessment should be conducted. The Herkimer County risk scores were consistent with those determined by the municipalities. These are described within the hazard sub-sections in **Section 3, Hazard Identification and Risk Assessment**, and the Jurisdictional Annexes.

### 1.7. Hazard Vulnerability Assessment

The methodology for calculating loss estimates is the same as that described in **Section 3.0, Hazard Identification and Risk Assessment**. Quantitative loss estimates are provided when available. Qualitative measurement considers hazard data and characteristics, including the potential impact and consequences based on past occurrences. The data is accompanied by a discussion of community assets potentially at risk during a hazard event.

#### Flood

Jurisdictions within Herkimer County ranked flood as a medium-to-high hazard based on overall risk. The primary types of flood affecting jurisdictions are ice jam and riverine/flash floods. Inadequate drainage capacity (due to culvert size and other obstructions) has contributed to past flooding.

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) are included in all jurisdictional annexes. The annexes also provide an overview of flood issues based on location, extent, previous occurrences, and past studies and plans. Four municipalities—the Town of German Flatts and the Villages of Herkimer, Ilion, and Mohawk—have begun, or will soon begin, mitigation actions of FEMA-funded flood-related property acquisition.

**Section 3.5, Flood**, includes a detailed assessment of vulnerability to flood. The following tables summarize county vulnerabilities for population, the built environment, critical infrastructure, and other community assets. Locations designated as flood zones are also called Special Flood Hazard Areas (SFHAs).

*Table Annex 1-e: Summary of Potential Flood-Related Exposed Population and Residential Parcels for 1% and 0.2% Annual Chance Flood, Herkimer County*

Jurisdiction	Total Population	Population within 100-Year Flood zones	Total Population: 100- & 500-Year Flood zones
Herkimer County	64,519	7,321	8,771

*Table Annex 1-f: Summary of Potential Flood-Related Exposure/Loss to 1% Annual Chance Flood Zone by Property Type, Herkimer County*

Jurisdiction	Residential		Commercial	
	Number of Residential Parcels	Potential Exposure/Loss for Residential Buildings	Number of Commercial Buildings	Potential Exposure/Loss for Commercial Buildings
Herkimer County	3,800	\$974,790,320	254	\$90,788,727



**Table Annex 1-g: Summary of Potential Flood-Related Exposure/Loss to 0.2% Annual Chance Flood Zone by Property Type, Herkimer County**

Jurisdiction	Residential		Commercial	
	Number of Residential Parcels	Potential Exposure/Loss for Residential Buildings	Number of Commercial Parcels	Potential Exposure/Loss for Commercial Buildings
Herkimer County	1,091	\$75,377,100	169	\$53,198,977

**Table Annex 1-h: Annualized Flood Losses, Herkimer County (Estimated)**

Jurisdiction	Annualized Flood Loss (estimated)
Herkimer County	\$8,691,696

### National Flood Insurance Program (NFIP)

All land in Herkimer County is located within an incorporated city, town, or village; there is no unincorporated land under the governmental jurisdiction of Herkimer County. As such, participation in the National Flood Insurance Program (NFIP) takes place at the municipal level. Jurisdictional annexes provide more information about each municipality’s NFIP participation, flood history, risks, and vulnerabilities.

### Severe Weather: High Wind, Thunderstorm/Heavy Rainfall, Winter Weather

Potential exposure to severe weather is primarily linked to vulnerability of the population and property. All 63,100 residents (2015 estimate) may be exposed to severe weather, although emergency managers and public health officials recognize the vulnerability of specific population segments. Those with unstable medical conditions and disabilities, residents age 5 and under, and those 65 years of age and older may be more vulnerable than the general population. Using 2010 census figures to calculate a countywide percentage for the disabled and those in vulnerable age groups, an estimated 22.4%, or 14,134 residents could need additional assistance and medical care during a large-scale disaster.

The potential loss exposure of Herkimer County to hazards other than flood, including severe weather, is depicted in **Table Annex 1-i**. Because these hazards affect the whole community, estimates of exposure represent the total of all residential and commercial properties in the county. The statistics in this table represent a “worst case scenario.” It provides the total number of county parcels and total number of all residential and commercial buildings, assuming all parcels contains structures. Parcel-level detail, which would have allowed more detailed analysis of vulnerability based on type, age and construction of structures, was not available in this planning cycle. Future data collection and analysis should consider these hazard-related variables. While the number of critical facilities is known, many are owned by entities other than the jurisdiction in which they are located so their values were not always readily estimated.



**Table Annex 1-i: Structures at Risk for All Severe Weather Events, Herkimer County**

Jurisdiction	Residential		Commercial	
	Number of Residential Parcels	Potential Exposure/Loss for Residential Buildings	Number of Commercial Parcels	Potential Exposure/Loss for Commercial Buildings
Herkimer County	24,408	\$2,930,471,306	1,494	\$382,916,131

Annualized losses related to specific severe weather conditions were calculated for the three highest-risk severe weather types.

**Table Annex 1-j: Average Annual Losses for High Wind, Thunderstorm/Heavy Rainfall and Winter Weather for Herkimer County (1950–2016)**

Severe Weather Type	Average Annual Loss (estimated)
High Wind	\$274,921
Thunderstorm/Heavy Rainfall	\$25,250
Winter Weather	\$1,156,625

## 1.8. Community Assets at Risk

The facilities and assets described in the following tables were identified as assets potentially vulnerable to one or more hazards. Based on the best data currently available, the tables provide a total number of exposed facilities and properties to the hazard of highest concern, but exact values in dollars were not available during this planning cycle.

**Table Annex 1-k: Critical Facilities Located within a FEMA Floodplain, by Jurisdiction**

Jurisdiction	Total Facilities	In 100-year Floodplain	In 500-year Floodplain
Herkimer County	718	206	6

**Table Annex 1-l: Cultural and Historic Properties Located within a FEMA Floodplain, Herkimer County**

Jurisdiction	Total Facilities	In 100-year Floodplain	In 500-year Floodplain
Herkimer County	8	7	1

**Table Annex 1-k** and **Table Annex 1-l** represent the jurisdictions’ best effort to identify critical facilities, also addressed in previous studies and reports. **Appendix 3-C** lists critical facilities identified for all jurisdictions. Additional detailed lists and maps of critical facilities are included in the jurisdictional annexes.

## Future Population Growth and Development Trends

Although the overall population in Herkimer County is projected to decline slightly in the next several decades, the population demographic over the age of 65 is expected to increase. This increase should be monitored in the next planning cycle with an eye toward conducting a more detailed statistical analysis of vulnerable populations. The population change may impact the review of hazard consequences and mitigation opportunities.

Community development is monitored and controlled at the municipal level. Herkimer County will continue to partner with multiple jurisdictions and regional entities to identify risk-reducing hazard mitigation opportunities.

## 1.9. Capabilities Assessment

Herkimer County reviewed its legislative and departmental capabilities to identify resources and strengths for implementing hazard mitigation efforts. Using a Capabilities Assessment Worksheet (CAW), the community documented existing institutions, plans, policies, ordinances, programs, and resources that could be brought to bear on implementing the mitigation strategy. Capabilities are described in the following section.

### Planning and Regulatory Capabilities

Because there is no unincorporated land within Herkimer County, the jurisdiction does not have a comprehensive plan that provides overarching planning and land use guidance. The Herkimer-Oneida Counties Comprehensive Planning Program (HOCCPP) provides support for multiple planning functions for the Herkimer County Planning Board and serves as the Regional Planning Board. HOCCPP departments address land use and zoning, transportation planning, human service needs, census and statistics, water resources, environmental planning, GIS mapping, and economic development. Many plans and studies conducted or supported by HOCCPP are multi-jurisdictional or regional, which promotes consistency across jurisdictions in the Planning Area. Land use, zoning, and building permit issuance are implemented at the municipal level.

Existing planning documents and programs include:

- Long-Range Transportation Plan (multi-jurisdictional)
- Transportation Improvement Program
- *Herkimer County Comprehensive Emergency Management Plan*, updated April 2015
- *Emergency Plan of Action for Highway Related Incidents*, Herkimer County Department of Highways, March 2008
- Flood Hazard Mitigation Plans (Fulmer, Moyer, and Steele Creeks), 2004
- Canal Plan for the Mohawk Valley Region

The County has a stormwater management plan that gives project-specific guidance but does not address hazard mitigation.

The *Herkimer County Comprehensive Emergency Management Plan (CEMP)*, updated April 2015, is the county’s all-hazards preparedness, response, recovery, and mitigation plan. The hazards included in the CEMP served as starting basis for identifying hazards for the Herkimer HMP. **Table Annex 1-m** summarizes CEMP sections that address evacuation, sheltering and temporary housing.

***Table Annex 1-m: Summary of Evacuation, Sheltering and Temporary Housing Plans and Procedures (Herkimer County CEMP)***

Plan Section	Provisions
<p><b>CEMP, Annex 6: Mass Evacuation Management</b></p>	<ul style="list-style-type: none"> <li>• All-hazard</li> <li>• Evacuation Zones</li> <li>• Authority – NYS Executive Law, Article 2-B</li> <li>• Ordered by Local Government Chief Executive</li> <li>• Scope: Alert, Mobilization, Movement, Maintenance, Return</li> <li>• Evacuation of General Population and Special Facilities</li> <li>• Operational procedures: Direction &amp; Control, Organization, On-Scene Operations, Designation of Transportation Routes,</li> <li>• Municipalities request support of the County</li> <li>• Transportation assistance for vulnerable populations</li> <li>• Relocation of Community Resources</li> <li>• Temporary Relocation and Care (shelters &amp; mass feeding)</li> </ul>
<p><b>CEMP, Annex 7: Sheltering &amp; Red Cross Disaster Planning Information for Families</b></p>	<ul style="list-style-type: none"> <li>• Shelter Actions procedures                             <ul style="list-style-type: none"> <li>○ Director, County Office of Emergency Services initiates activation of shelters in coordination with ARC</li> </ul> </li> <li>• Situation Assessment to determine hazard, location, type of impact(s), estimated number of persons to be sheltered, access to evacuation routes</li> <li>• Shelter &amp; Mass Feeding Sites</li> <li>• Provision for Sheltering-in-Place</li> </ul>
<p><b>CEMP, Annex 11: Public Health Emergency Preparedness and Response Plan</b></p>	<ul style="list-style-type: none"> <li>• Any hazard potentially impacting the health of a large segment of the public (extreme weather/natural disasters, biological, hazardous materials (chemical, radiological/nuclear)</li> <li>• Identifies Essential Public Health Functions in a disaster</li> <li>• Defines Special/Vulnerable/At Risk Populations and identifies related facilities</li> <li>• Provides Hazard Analysis/Vulnerability Assessment for Public Health</li> </ul>
<p><b>CEMP Basic Plan - Temporary Disaster Housing</b></p>	<ul style="list-style-type: none"> <li>• Responsible Agency – American Red Cross</li> <li>• Activity of long-term reconstruction and recovery phase</li> <li>• Recovery assistance need</li> <li>• <b><i>Pre-designated sites for temporary housing are not identified</i></b></li> </ul>

The CEMP also designates the County Director of Emergency Services as the County Mitigation Coordinator and defines roles and responsibilities for monitoring, evaluating, and updating the county’s hazard mitigation plan. Additional information about plan maintenance can be found in **Section 5, Plan Maintenance**.

### Administrative and Technical Capabilities

Herkimer County provides services for public safety (emergency services and law enforcement), soil and water conservation, highways, public health, and other community and social services. The Highway Department includes staff who possess skills in

transportation engineering and GIS. The Director of Emergency Services is designated as the County Emergency Management Director. HOCCPP also provides planning and programmatic assistance.

### Safe Growth Capabilities

The jurisdiction does not see itself as requiring a comprehensive plan because there is no unincorporated land within the county. Land use planning and development are addressed by HOCCPP, and are generally the responsibility of municipalities. Multi-jurisdictional floodplain assessment and planning has occurred, with the county serving as a coordinating partner in such efforts. The County is also a partner in multi-jurisdictional efforts for soil and water conservation, sustainability planning, and economic development.

### Financial Capabilities

The County planning group identified several funding resources that could be used for hazard mitigation. These include capital improvement project funding, taxes levied for specific purposes, and state and federal grants.

### Education and Outreach

The county has several existing programs and organizations that could expand their scope to implement mitigation outreach efforts.

Sponsor	Program Type
<b>American Red Cross</b>	<ul style="list-style-type: none"> <li>▪ Natural disaster/safety related community and school programs for individual, family, and community preparedness</li> <li>▪ Public/private initiatives addressing disaster-related issues</li> </ul>
<b>Oneida-Herkimer Solid Waste Authority</b>	<ul style="list-style-type: none"> <li>▪ Ongoing public education about responsible water use, environmental education, household recycling, etc.</li> </ul>
<b>Fire Districts/Sheriff's Office</b>	<ul style="list-style-type: none"> <li>▪ Natural hazard/safety related school programs</li> <li>▪ Community fire/crime prevention programs</li> </ul>
<b>Herkimer County Emergency Management (Emergency Services)</b>	<ul style="list-style-type: none"> <li>▪ Community disaster preparedness presentations and distribution of materials</li> </ul>

The organizations noted above have the capability to expand education and outreach to include mitigation-related information even though they currently present programs on a single element (e.g., fire safety, disaster preparedness). Training could be provided to educate speakers about how to include into their outreach recommended hazard mitigation practices for the family, home, business, or community. Through its StormReady designation, Herkimer County Emergency Services Department has a well-developed relationship with the National Weather Service. This presents opportunities to promote preparedness and mitigation to other communities.

## 1.10. Hazard Mitigation Action Plan, Prioritization, and Recommended Initiatives

The County planning group identified six mitigation actions to include in the HMP. **Attachment 1-A** summarizes each action, describing the proposed activity, priority level, estimated cost, and lead agency. Behind the table are worksheets providing project details for each action. Proposed actions include countywide culvert and ditch streambank stabilization; bridge maintenance planning; culvert replacement to expand capacities; transportation asset management planning; developing a climate change coordination organization; and conducting a climate change baseline assessment of Herkimer County.

## 1.11. Status of Previous Mitigation Initiatives

Although Herkimer County and its jurisdictions discussed hazard mitigation during previous planning efforts, the County has not adopted or implemented a mitigation plan that monitored actions or tracked progress. Jurisdiction-based projects that contribute to risk reduction have been completed or are currently in progress. These efforts are reported in jurisdiction annexes and in **Appendix 4-C, Mitigation Actions**.

## 1.12. Action Plan for Implementation

The County's CEMP designates the Director of Emergency Services as the County Mitigation Coordinator. In this role, the Coordinator is responsible for implementing the mitigation plan on two levels: implementation of Herkimer County's actions, and facilitating implementation of the multi-jurisdictional plan. Tasks to ensure that Herkimer County's actions are implemented were identified during the planning process and focused on maintaining ongoing enforcement of existing policies, monitoring funding opportunities, and incorporating goals and objectives into day-to-day government functions. Specific plan implementation tasks are integrated into the plan maintenance procedures described in the next section.

## 1.13. Plan Maintenance

**Table Annex 1-n** provides a description of monitoring, evaluating, and updating procedures that Herkimer County will follow to maintain its mitigation plan. These procedures are further described in **Section 5, Plan Maintenance** and **Appendix 5, Plan Maintenance Documentation**. In addition to the jurisdiction-specific tasks defined in the table, the County Mitigation Coordinator is the facilitator for the countywide monitoring, evaluation, and update processes. The position is also charged with initiating the annual plan review, convening the HMWG, and providing follow-up reports to designated entities on a defined schedule.

**Table Annex 1-n: Plan Maintenance Responsibilities, Herkimer County**

<b>Monitoring the Plan</b>	<ul style="list-style-type: none"> <li>• Represent the jurisdiction during the monitoring process</li> <li>• Collect, analyze, and report data to the HMWG</li> <li>• Maintain records and documentation of all jurisdictional monitoring activities</li> <li>• Assist in disseminating reports to stakeholders and the public</li> <li>• Promote the mitigation planning process with the public and solicit public input</li> </ul>
<b>Evaluating the Plan</b>	<ul style="list-style-type: none"> <li>• Represent the jurisdiction during the evaluation process</li> <li>• Collect and report data to the HMWG</li> <li>• Maintain records and documentation of all jurisdictional evaluation activities</li> <li>• Assist in disseminating information and reports to stakeholders and the public</li> </ul>
<b>Updating the Plan</b>	<ul style="list-style-type: none"> <li>• Represent the jurisdiction during the planning cycle, including the plan review, revision, and update process</li> <li>• Collect and report data to the HMWG</li> <li>• Maintain records and documentation of all jurisdictional plan review and revision activities</li> <li>• Help disseminate reports to stakeholders and the public</li> </ul>

### Plan Maintenance Schedule

- Monitoring: annually, and/or following major disaster(s)
- Evaluating: annually, and/or following major disaster(s)
- Updating: annual tasks over the five-year planning cycle

**Attachment 1-C** provides a plan maintenance, revision, and update form to track changes to this annex.

### 1.14. Plan Adoption

Herkimer County’s adoption of this plan will signify its commitment to implementing the provisions and actions described within. Upon adoption, the County planning group will determine a schedule for meetings and other means of coordination. Documentation of adoption is included as **Attachment 1-B**.

## **ATTACHMENTS**

**1-A: Mitigation Actions – Ranking Sheet and Action Worksheets**

**1-B: Adoption Resolution – Herkimer County**

**1-C: Annex Maintenance, Revision and Update Record**

**1-D: Historic Photos – Herkimer County Disasters**



# Attachment 1-A: Mitigation Actions – Ranking Sheet and Action Worksheets

## Herkimer County Mitigation Actions

**\*Abbreviations for Project Types:**

- LPR - Local Plans and Regulations
- SIP - Structure and Infrastructure Projects
- NSP - Natural Systems Protection
- EAP - Education and Awareness Program

**Jurisdiction Abbreviations:**

- HC – Herkimer County
- HW – Highway Department

Project #	Mitigation Action	Hazard/ Project Type*	(1) Life Safety & Property	(2) Funding Availability	(3) Matching Funds	(4) Benefit Cost Review	(5) Environmental Benefit	(6) Technical Feasibility	(7) Timeframe to Implement (Short Term or Long Term)	(8) TOTAL SCORE
HC-001 HW	County-wide Culvert & Ditch Bank Stabilization	Flood/SIP	4	2	2	2	4	4	4	22
HC-002 HW	County-wide Bridge (non-structural) Maintenance Plan	Flood/SIP	4	2	2	2	3	4	4	21
HC-003 HW	County-wide Large Culvert (6' to 20') Replacement/Repair	Flood/SIP	4	1	2	2	2	4	4	19
HC-004 HW	Countywide Asset Management Plan	Flood/SIP	4	1	2	2	4	2	4	19
HC-005	Development of Climate Change Coalition	Multiple/ LPR	4	3	4	2	4	4	4	25
HC-006	Climate Change Baseline Assessment	Multiple/ LPR	4	1	0	2	3	4	2	16

Action worksheets follow for the two priorities on which Herkimer County has decided to focus during the current planning period.

Action Worksheet			
<b>Project Name:</b>	Develop a Climate Change Organization		
<b>Project Number:</b>	HC - 005		
Risk / Vulnerability			
<b>Hazard of Concern:</b>	Drought, Extreme Heat, Flood, Severe Weather, Wildfire		
<b>Description of the Problem:</b>	New York State has conducted many studies that identify the impacts of climate change and examine how communities can act to adapt to climate changes and its consequences. Herkimer County and its municipalities will organize a group to take the lead in addressing the local impacts of climate change.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	<ul style="list-style-type: none"> <li>Elected officials will organize a Climate Change Coalition/ Advisory Council</li> <li>Identify a purpose, agenda and expected outcome for the organization's role</li> <li>Incorporate review of validated Climate Change studies, plans, recommendations, and other documentation into the organization's scope of activities</li> <li>Identify levels of commitment at which local jurisdictions can become involved in adopting adaptive measures for climate change.</li> <li>Establish climate change adaptation goals</li> </ul>		
<b>Is this project related to a Critical Facility?</b>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the Critical Facility to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
<b>Level of Protection:</b>	N/A	<b>Estimated Benefits (losses avoided):</b>	<ul style="list-style-type: none"> <li>Reduce energy usage and costs</li> <li>Attract "green" businesses</li> <li>Reduce future hazard impacts</li> <li>Increase tax revenues and employment base</li> </ul>
<b>Useful Life:</b>	N/A		
<b>Estimated Cost:</b>	Undetermined		
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	1 year
<b>Estimated Project Timeline:</b>	2 years	<b>Potential Funding Sources:</b>	Local operational budgets
<b>Responsible Organization:</b>	Herkimer County Emergency Services	<b>Local Planning Mechanisms Used in Implementation, if any:</b>	Hazard Mitigation Planning Cycle
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Failure to plan for the impacts of climate change could have a significant impact on the population, property, environment and economy in Herkimer County
	Contract for services to develop a Climate Change organization	Unknown	Funding required to contract with an external source to develop the organization and meet objectives.
	N/A	N/A	N/A
Progress Report (for plan maintenance)			
<b>Status Report Date:</b>			
<b>Progress Report:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			

Action Worksheet			
<b>Project Name:</b>	Climate Change Baseline Assessment for Herkimer County, NY		
<b>Project Number:</b>	HC - 006		
Risk / Vulnerability			
<b>Hazard of Concern:</b>	Drought, Extreme Heat, Flood, Severe Weather, Wildfire		
<b>Description of the Problem:</b>	New York State has conducted studies that identify climate change impacts and examine how communities can act to adapt to same. The County will assess current local efforts to address climate change impacts; potential adaptive measures; ways to reduce hazards impacts; reducing carbon dioxide emissions; and increasing energy conservation.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	<ul style="list-style-type: none"> <li>Climate Change Coalition/Advisory Council will coordinate the study</li> <li>Identify the study’s methodology, activities and expected outcome</li> <li>Ensure public participation in the process</li> <li>Identify applicable climate change adaptations that can implemented, based on potential costs/benefits realized by the action</li> <li>Define recommendations and suggestions for implementation of adaptive measures</li> </ul>		
<b>Is this project related to a Critical Facility?</b>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
(If yes, this project must intend to protect the Critical Facility to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
<b>Level of Protection:</b>	N/A	<b>Estimated Benefits (losses avoided):</b>	<ul style="list-style-type: none"> <li>Reduce energy usage and costs</li> <li>Attract “green” businesses</li> <li>Increase tax revenues and employment base</li> <li>Reduce future hazard impacts</li> </ul>
<b>Useful Life:</b>	N/A		
<b>Estimated Cost:</b>	Undetermined		
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	2 years
<b>Estimated Project Timeline:</b>	2 years	<b>Potential Funding Sources:</b>	Local operational budgets and grants
<b>Responsible Organization:</b>	Herkimer County Emergency Services	<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Hazard Mitigation Planning Cycle
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Failure to plan for the impacts of climate change could have a significant impact on the population, property, environment and economy in Herkimer County
	Contract for services to conduct a Baseline Assessment	Unknown	Funding required to contract with an external source to develop the organization and meet objectives.
	N/A	N/A	N/A
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			

# Attachment 1-B: Mitigation Plan Adoption Resolution



## HERKIMER COUNTY LEGISLATURE

No. 33

### REPORT AND RESOLUTION APPROVING 2017 HERKIMER COUNTY HAZARD MITIGATION PLAN

**Sponsored by: Committee on Public Safety/Emergency Management**

WHEREAS, by letter dated December 29, 2017, Matthew Palumbo, Director of Emergency Services/E911 has advised the 2017 Hazard Mitigation plan has been reviewed and approved by FEMA; and

WHEREAS, letter further states the following municipalities participated and are eligible for mitigation funding:

Village of Dolgeville, Town of Fairfield, Town of Frankfort, Village of Frankfort, Town of German Flatts, Town of Herkimer, Village of Herkimer, Village of Ilion, Town of Litchfield, Town of Little Falls, City of Little Falls, Town of Manheim, Village of Mohawk, Town of Norway, Town of Ohio, Town of Russia, Town of Salisbury, Town of Webb, Town of Winfield; and

WHEREAS, Resolutions adopting the Plan have been done by the following municipalities:

City of Little Falls, Town of Fairfield, Town of Frankfort, Town of German Flatts, Town of Herkimer, Town of Litchfield, Town of Little Falls, Town of Manheim, Village of Dolgeville, Village of Frankfort, Village of Herkimer, Village of Ilion, Village of Mohawk; and

WHEREAS, the Director of Emergency Management has advised that he has reviewed the plan and requests acceptance of the 2017 Hazard Mitigation Plan; now, therefore be it

RESOLVED, that the 2017 Herkimer County Hazard Mitigation Plan is hereby adopted by the Herkimer County Legislature; and, be it further

RESOLVED, that certified copies of this Resolution be forwarded to the Herkimer County Treasurer, Auditor, Budget Officer and Director of Emergency Services.

Dated: January 24, 2018.

STATE OF NEW YORK )  
COUNTY OF Herkimer County ) SS.  
LEGISLATURE CHAMBERS )

I, SALLY I. DEMING, Clerk of the Legislature of Herkimer County, do hereby certify that I have compared the foregoing copy of Resolution No. 33 with the original duly adopted by the Herkimer County Legislature at a regular session held on the 24th day of January, 2018, and that the same is a true copy of said original and of the whole thereof.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the official seal of said Legislature on this 25th day of January, 2018

L.S.

*Sally Deming*, Clerk

# Attachment 1-C: Annex Maintenance, Revision and Update – Herkimer County

## *Record of Changes – Annex Maintenance, Revision, and Update Herkimer County*

Date	Task	Resulting Action	Plan Section(s)	By (name, title, agency)

## Attachment 1-D: Historic Photos – Herkimer County Disasters



*“On Albany St. after the flood, Herkimer NY 1910”*

*Source: herkimer.nygenweb.net*



*Man in Flooded Street, Herkimer, NY, undated*

*Source: Postcard for sale on EBay 03.22.17*





***Flooded Residence, Ice Jam flooding, Herkimer, NY, undated***

*Source: Postcard for sale on EBay 03.22.17*



***1910 Flood Debris, Manning***

*Photo Credit: Postcard for sale on Ebay 03.22.17*