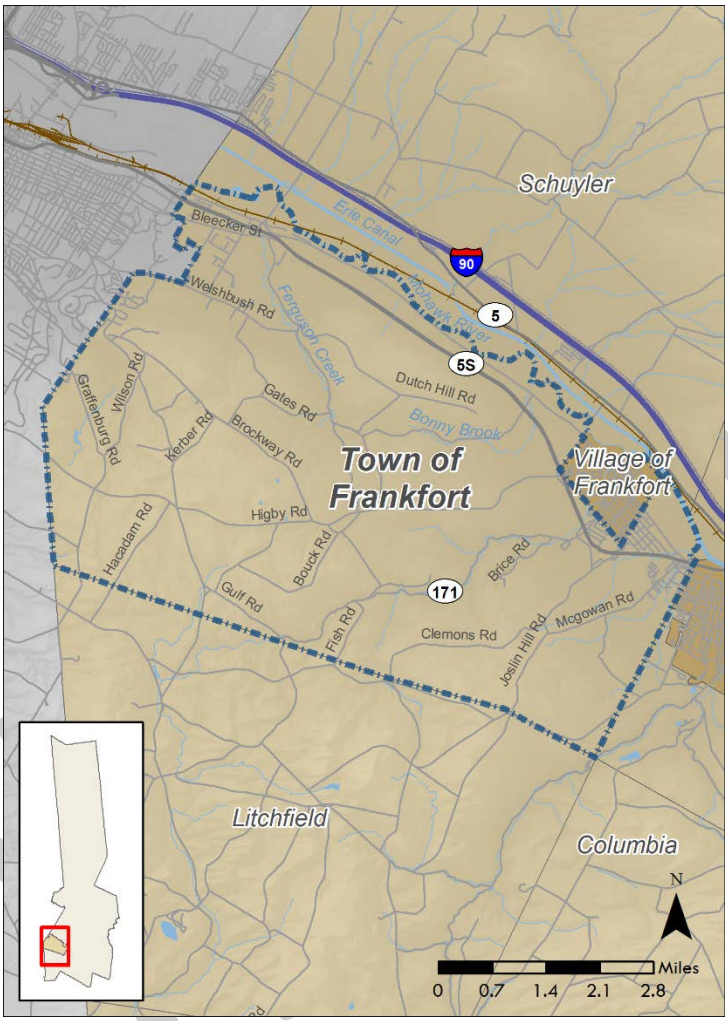
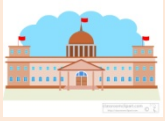
ANNEX 7:TOWN OF FRANKFORT

Herkimer County Multi-Jurisdictional Hazard Mitigation Plan
Town of Frankfort * 201 Third Avenue * Frankfort, NY 13340



	**Town Established: 1796**		**Land Area: 37.3 square miles**
	**2010 Population: 7,636**		**Claim to Fame: Herkimer County Fair**
	**Households: 3,078**		**Mitigation Focus: Flood**

7.1. Hazard Mitigation Plan Point of Contact

Primary Point of Contact:
Mishele Spaman, Code Enforcement Officer
Town of Frankfort
201 Third Avenue
Frankfort, NY 13340
Phone: 315-894-0922
Email: frankfortcodes@hotmail.com

7.2. Jurisdiction Planning Process

The Town of Frankfort followed the planning process described in **Section 2, Base Plan**. In addition to providing representation on the Herkimer County Hazard Mitigation Working Group (HMWG), the Town supported the local planning process requirements by appointing a Local Planning Committee (LPC). The LPC also met with the HMWG project manager on February 8, 2017 to assess planning needs, LPC members include:

Name	*Position/Title*	*Department/Agency*
Darlene Abbatecola	Councilperson	Town Council
Gina Bellino	Town Clerk	Administration
Dorri DeRollo	Deputy Town Clerk	Administration
Joseph P. Kinney	Town Supervisor	Administration
Steven Long	Lead Officer	Police Department
Mishele Spaman	Code Enforcement Officer	Codes Enforcement
Ron Testa	Superintendent	Highway Department

Glossary

The following acronyms are used throughout the Herkimer County Hazard Mitigation Plan (HMP) and the accompanying jurisdictional annexes.

Acronym	Definition
DFIRM	Digital Flood Insurance Rate Map
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
HMP	Hazard Mitigation Plan
HMPG	Hazard Mitigation Grant Program
NCDC	National Center for Data Collection
LPC	Local Planning Committee
NFIP	National Flood Insurance Program
NCEI	National Center for Environmental Information (NOAA) [Formerly called the National Data Collection Center – NCDC)
NOAA	National Oceanic and Atmospheric Agency
SFHA	Special Flood Hazard Area (floodplain)

The jurisdiction identified the following as its hazard mitigation responsibilities:

- Land Use/Planning
- Data Collection and Dissemination
- Health and Human Services
- Critical Infrastructure
- Natural/Cultural Resources
- Government
- Transportation
- Public Safety (Fire, Law Enforcement and Rescue)
- Finance/Budget/Administration

The LPC also identified the following tasks as part of the mitigation planning process:

- Capabilities Assessment
- Hazard and Risk Assessment
- Technical Data and Hazard Information
- Review and Input for Plan Drafts
- Planning Team Resource/Subject Matter Experts
- Management Level Support for Planning Effort
- Mitigation Strategy Development
- Coordination of Jurisdictional Planning Committee
- Plan Implementation and Monitoring

The LPC attended meetings of the HMWG and held discussions as a group at its home base. The group profiled hazards and defined hazard impacts and consequences; conducted a risk analysis; and developed a mitigation strategy. Additional documentation of the jurisdiction's planning process through HMWG meetings is included in **Section 2, Base Plan**.

7.3. Jurisdiction Profile

- **Incorporation:** 1796
- **Total Area:** 37.3 sq. miles
- **Number of households:** 3,078
- **Elevation**: 971' above sea level

Population

- 1970 Population: 7,805
- 1980 Population: 7,686 (-1.5%)
- 1990 Population: 7,494 (-2.5%)
- 2000 Population: 7,396 (-1.3%)
- 2010 Population: 7,636 (+3.2%)
- 2012 (Estimate): 7,609 (-0.005%)
- 2015 (Estimate): 7,576 (-0.005%)

Sources:
www.factfinder.census.gov
Herkimer Co. Sub County Profiles 2013

Economy

- 2015 Median Household Income: $50,047
- 2013 Per Capita Income: $19,915
- 2015 Percentage below Poverty: 16.3%
- Number of Businesses: 159
- 2015 Unemployment: 6.1%

Source:
www.factfinder.census.gov
Herkimer County Property Assessor

Governance

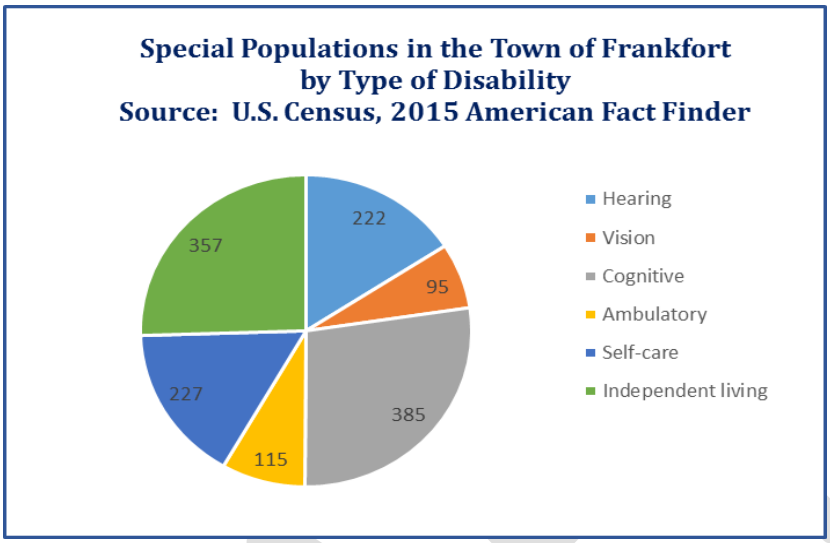
- Supervisor
- Council Members (4)
- Town Clerk
- Deputy Town Clerk
- Highway Superintendent
- 2017-18 Budget: $4,654,408

Source:
http://www.townoffrankfort.com/

Data from 2015 U.S. Census estimates show that 5.8% of the town's population is five years of age or younger, and 19.1% is 65 years of age and older. As such, roughly 25% of the population is considered at risk in the event of a disaster based on age. An estimate of 16.7% is given for the portion of the population with limited physical, cognitive, ambulatory, self-care and independent living capabilities. During a disaster, communities

must deploy a support system that enables all populations to safely reach shelter or to quickly evacuate. A breakdown of persons by type of disability is shown in **Figure Annex 7-1**.

Figure Annex 7-1: Vulnerable Populations in the Town of Frankfort



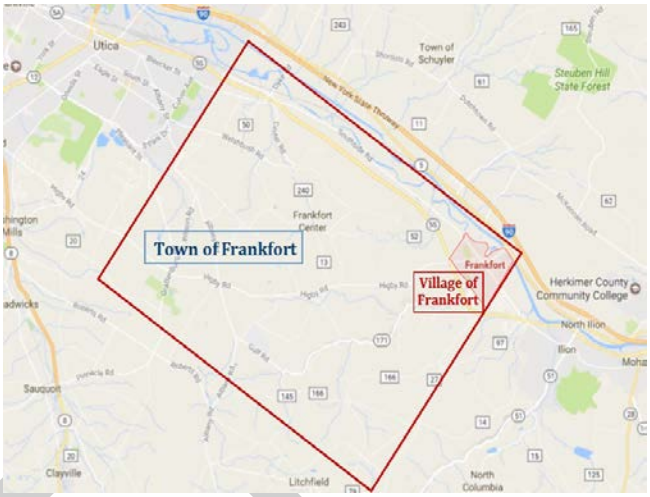
The array of business enterprises located in Frankfort include (clockwise from upper left): Hale Manufacturing Co., maker of fine commercial furniture; the Frankfort Harbor Marina and Park, water recreational hub; and Fiberdyne Energy.

There is a history of commercial enterprises settling in the town of Frankfort because of its location near the Mohawk River and major roadways. Early settlers quickly recognized the region's economic farming and manufacturing resources by planting grain and building grist mills; logging and building saw mills and asheries; and developing facilities for tanning, distillation, and wool manufacture.

Today's community includes a diversified economic base because the community builds on "home advantages." Three business parks, two located in the town of Frankfort and the other in the village of Frankfort, provide space for clean manufacturing plants like Fiberdyne Energy and Hale Manufacturing Company, which produces fine commercial office and library furnishings. The presence of enterprises as varied as metal recycler Titanium Processors, LLC, Higby Road Tree Farm, and Doolen Oil, Inc., suggest that the Frankfort community is poised to embrace an array of new business and social opportunities that would enhance the quality of life in Herkimer County.

Location and Description

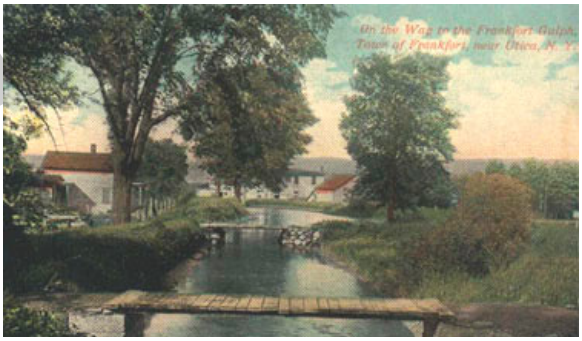
The town of Frankfort includes the village of Frankfort, which makes up 1.83 of the town's 37.3 square miles. Town borders include: the Mohawk River to the north; the village of Ilion and town of German Flats to the east; the town of Litchfield to the south; and the city of Utica, the region's largest city, on the western front. NYS Route 5S spans the town and parallels the Mohawk River and Erie Canal. The Google map at right shows Frankfort as having easy access to Interstate 90, which runs east-west on the north side of the Mohawk River.



A geological feature called Frankfort Gorge is the portion of Moyer Creek that runs under Highway 171, from the village to the hamlet of Gulph and Frankfort Highland Airport. Local radio station Lite 98.7 FM reported that the road was closed during the June 2013 storms that affected Mohawk Valley (***Source:*** *http://lite987.com/is-new-york-route-171-frankfort*).

History

The Town of Frankfort website records the community's history from 1710, when Jacob Folts arrived as the first permanent settler. He purchased a lot of the Burnetsfield Patent and was later joined by Lawrence Frank, for whom the town was later named. In 1796, the town was set off from the town of German Flatts by an act of the legislature. The usual assortment of pioneer businesses arose, including a woolen factory, distillery, tannery, grist mill, and other industries needed to support the town. In 1844, industrialist William Gates developed what is known as the modern American match as opposed to matches hitherto made in England, Gates developed a new process that led to the creation of the hand-cut matches bundled in handmade boxes and peddled across the country at a price ten times the previous market cost. He hired 300 people and became the town's largest employer. (**Source:** http://www.schenectadyhistory.org/resources/mvgw/history/129.html). His company later merged with Diamond Match Company, which relocated to Oswego. Nonetheless, early industrial success lay the groundwork for the current level of economic growth seen today.



Post card label*: On the Way to the Frankfort Gulph, Town of Frankfort, near Utica, N.Y.*
Source: *http://herkimer.nygenweb.net/frankfort.html*

Climate

The town climate is like that of nearby Mohawk Valley communities. Temperatures average 70°F in the summer and below 20°F in the winter. Sperling's Best Places (http://www.bestplaces.net) reports that the average high temperature for the month of July is 80 degrees, and the average January high temperature is 11 degrees. The average total rainfall is 45 inches, and the average snowfall amount is 93 inches (7.75 feet). The moderate climate allows nearby farmers to raise organic fruits and vegetables, garlic, pork, dairy products and other comestibles. An agritourism map showing where to find local producers may be found at www.communitywalk.com. Land use maps included in Attachment 7-6 illustrate how land is used for agricultural and other purposes.

Farms dotting the landscape in the town of Frankfort participate in the Annual Herkimer County Fair that takes place every August. The Fair logo, center, is flanked by images of two local farms. At left is Brickhouse Acres Greenhouse and Berry Farm. At the right is a photo of happy residents working at Oliver's Organic Eggs.

Sources: ***https://www.facebook.com/BrickHouseAcres/***, ***https://www.facebook.com/HerkimerCountyFair/*** ***http://www.oliversorganiceggs.net***

Natural, Cultural and Historic Resources

Herkimer County exposes residents and visitors to a mixture of terrain. Lowland Frankfort is situated on the Mohawk River and crossed by other waters: Bonny Brook, Ferguson Creek, and Moyer Creek, all emptying into the Mohawk. The nearby higher elevation of the Adirondack Mountains attracts outdoor enthusiasts year around. Although the waters offer the chance to enjoy boating, hiking and fishing, their proximity brings a history of repetitive flooding and its adverse consequences. The Town partners with research and civic groups to develop planning initiatives that address the flood hazard.

The Balloon Farm, Frankfort, NY, 1907
Source: www. herkimer.genweb.net

Local advantages, such as good land and moderate weather, fostered the early agricultural development. The 1889 purchase of the William Gates land and mansion by aeronautical pioneer Carl Myers and his wife Carlotta strengthened ties to early industry. The Myerses built a Balloon Farm, where Carl made hot air balloons of all sizes. He developed hydrogen balloons used by the

government for weather prediction and military balloons for the Spanish American War. (***Source:*** http://herkimer.nygenweb.net/frankfort/balloonfarm.html) The 30-room mansion still stands and is listed on the National Register of Historic Places.

Development Trends

Anticipated development for much of the town is expected to remain flat, with activity confined to development in available space at three business parks. The Herkimer County Industrial Development Authority (IDA) lists the Frankfort 5S South Business Park and the West Frankfort Industrial Park as sites for prospective businesses interested in a location at the western end of the county. Thirty-six acres of space is also available in Frankfort 5S North Business Park, located in the village of Frankfort. The relocation of additional clean industry would complement existing businesses.

It was announced in April 2017 that national farm services firm Tractor Supply Company would develop an "aesthetically pleasing" building to house 350 workers to man an intended distribution center. (***Source:*** http://www.twcnews.com/nys/central-ny/news/2017/04/19/tractor-supply-to-create-hundreds-of-jobs-in-herkimer-county.html) A description of this project and of the three business parks in included in **Attachment 7-H**.

7.4. Jurisdiction-Specific Hazard Event History

Frankfort's history of federally-declared hazard events is consistent with that pf Herkimer County, which includes a 21 declared major disasters and emergencies. The 14 events for which disaster declarations were received are shown in **Table Annex 7-a**.

Table Annex 7-a: FEMA-declared disasters and emergencies in Herkimer County

	Declaration	Date	Hazard	Description
1	447	7-23-1974	Flood	Severe Storms and Flooding
2	515	7-21-1976	Flood	Severe Storms and Flooding
3	1095	1-24-1996	Flood	Severe Storms and Flooding
4	1244	9-11-1998	Severe Storms	NY Severe Weather September 7,
5	1335	7-21-2000	Severe Storms	Severe Storms and Flooding
6	1391	9-11-2001	Fire	Fires and Explosion
7	1534	8-3-2004	Severe Storms	Severe Storms and Flooding
8	1650	7-1-2006	Severe Storms	Severe Storms and Flooding
9	1670	12-12-2006	Severe Storms	Severe Storms and Flooding
10	1993	6-10-2011	Severe Storms	Severe Storms, Flooding,
11	4020	8-11-2011	Hurricane	Hurricane Irene
12	4031	9-13-2011	Severe Storms	Remnants of Tropical Storm Lee
13	4129	7-12-2013	Flood	Severe Storms and Flooding
14	4180	7-8-2014	Severe Storms	Severe Storms and Flooding

Of the 100+ additional lesser events documented in the NOAA Centers for Environmental Information (NCEI) Storm Events Database, 30 cite Frankfort as the event location. This does not include events affecting the whole county or the South Herkimer subzone, where Frankfort is located. Town-specific events are shown in **Table Annex 7-b.** Note that listings do not differentiate between the town and the village of Frankfort when recording the event location, although weather history for both is likely to be nearly identical.

Table Annex 7-b: Frankfort-specific Weather Events

	Date	Event Type	Magnitude	Magnitude Type	F Scale	Property Damage	Source	Tornado Length	Tornado Width	Beginning Range
1	7/9/1994	Thunderstorm Wind	0			5,000		0	0	0
2	8/31/1995	Thunderstorm Wind	52			0		0	0	0
3	8/8/1996	Flash Flood				700,000				
4	7/15/1997	Thunderstorm Wind				500				
5	7/17/1997	Thunderstorm Wind				1,000				
6	5/31/1998	Thunderstorm Wind				50,000				
7	9/7/1998	Hail	0.75			0	Trained Spotter			
8	5/13/2000	Flash Flood				90,000	NEWSPAPER			
9	9/21/2000	Thunderstorm Wind				15,000	Trained Spotter			
10	5/24/2004	Hail	1.75			0	Trained Spotter			
11	5/24/2004	Hail	0.88			0	Trained Spotter			
12	6/9/2004	Lightning				0	Law Enforcement			
13	11/28/2004	Flash Flood				0	Trained Spotter			
14	11/17/2006	Flood - Heavy Rain				0	Other			8
15	3/15/2007	Flood - Heavy Rain/Snow Melt				0	Other			8
16	4/23/2007	Thunderstorm Wind	50	EG		0	Law Enforcement			0
17	6/8/2007	Thunderstorm Wind	50	EG		0	Trained Spotter			0
18	5/29/2013	Thunderstorm Wind	50	EG		0	Trained Spotter			0
19	9/2/2013	Thunderstorm Wind	50	EG		0	Trained Spotter			0
20	8/13/2016	Thunderstorm Wind	50	EG		0	Fire/Rescue			1
21	10/18/2006	Flood - Heavy Rain				0	NWS Observations			35
22	10/20/2006	Flood - Heavy Rain				0	NWS Observations			9
23	10/20/2006	Flood - Heavy Rain				0	NWS Observations			35
24	10/29/2006	Flood - Heavy Rain				0	NWS Observations			35
25	10/29/2006	Flood - Heavy Rain				0	NWS Observations			10
26	5/21/2013	Thunderstorm Wind	50	EG		0	Trained Spotter			0
27	8/13/2016	Thunderstorm Wind	50	EG		0	Fire/Rescue			1
28	5/21/2013	Thunderstorm Wind	50	EG		0	Trained Spotter			0
29	4/28/2011	Tornado			EF1	0	NWS Storm Survey	2.88	250	1
30	8/28/2011	Flash Flood - Heavy Rain/Tropical System				0	Trained Spotter			2
						$861,500				

The breakdown by type of Frankfort-based hazard events from the table above is as follows:

Event Type	# Events
Flash Flood	3
Flood	8
Hail	3
Lightning	1
Thunderstorm/Wind	14
Tornado	1
Total	**30**

The data indicates that flood and thunderstorm hazards have caused the most damage, a total of $861,500. Fortunately, there were no reported deaths or agricultural losses. Plans, studies and reports were developed over recent years to address flood concerns. Documentation of flood events and their impact to the town of Frankfort and other waterfront communities are fully described in the following documents, all of which were consulted in developing mitigation plans for Herkimer County and its jurisdictions. The town was consulted for flood hazard planning, in developing risk assessments, and in formulating recommended mitigation actions. Information from the plans, studies and reports were incorporated by reference throughout the Herkimer County HMP and are listed in the **Section 2.9, Base Plan**.

- *Emergency Transportation Infrastructure Recovery Water Basin Assessment and Flood Hazard Mitigation Alternatives - Moyer Creek* (April 2014)
- *Mohawk River Basin Floodplain Assessment, FINAL REPORT DHS-FEMA Competitive Grant, Floodplain Coordination and Outreach, October 17, 2012* (NYSDEC and Ecology and Environment, Inc.)
- *Mohawk River Basin Action Agenda 2012 –2016* (NYSDEC)

7.5. Hazard Impacts and Consequences

Town officials identified six hazards as having high or medium impact on the jurisdiction. These are covered in **Section 7.7** of this jurisdictional annex. **Section 3, Base Plan** includes detailed descriptions of the hazards and their effect on the Herkimer County planning area. Multiple flood types were identified as having the potential to affect the community: dam/levee failure, ice jam, high groundwater and local drainage, and riverine and flash floods. The jurisdiction has also been affected by erosion along Moyer Creek that occurred because of flooding. Most of the town's previous flood events were caused by high groundwater, inefficient local drainage, riverine and flash flood and, to a lesser extent, ice jams. Although there is a potential for dam or levee failure to impact the community, there is no previous history of this type of flood event. **Table Annex 7-c** describes the level of impacts and consequences anticipated from each hazard event. The LPC developed a ranking system for this activity based on the following criteria:

- Score 1: Probable Highest Concern
- Score 2: Possible but Less of a Concern
- Score 3: Possible but Unlikely

Postcard labeled "Scene on the Mohawk River at Frankfort, NY"
Source: www. herkimer.genweb.net

Table Annex 7-c: Hazard Impacts and Consequences for the Town of Frankfort

Town of Frankfort Hazards for Consideration	Mass Casualty Potential	Transportation Infrastructure Damaged	Impact on Emergency Response Operations	Communication Failure	Damage to Homes and Businesses	Health and Medical System Impacts	Water System Damage or Failure	Utility System Damage or Failure	Sewer System Damage or Failure	Environmental Damage or Long Term Impact	Agricultural Losses - Crops	Agricultural Losses - Animals	Economic Impact - Direct or Indirect	Civil Unrest	Commodity Shortage	Impact to Public Confidence in Governance	Impacts to Cultural or Social Assets
Natural Hazards																	
Avalanche																	
Drought																	
Earthquake							x	x									
Extreme Heat						x											
FLOOD: Dam/Levee Failure																	
FLOOD: Ice Jam		x	x														
FLOOD: High Groundwater & Local Drainage																	
FLOOD: Riverine & Flash Flood		x	x	x	x	x	x	x	x	x	x		x			x	x
Landslide		x	x							x							
SEVERE WEATHER: Hail							x	x									
SEVERE WEATHER: High Wind (Straight-line, tropical, tornado)							x	x									
SEVERE WEATHER: Lightning					x												
SEVERE WEATHER: Thunderstorm/Heavy Rainfall			x				x	x	x		x						
SEVERE WEATHER: Winter Weather (Snow, Ice, Cold, Storms)			x					x		x			x				
SOIL HAZARDS: Erosion										x							
SOIL HAZARDS: Expansive Soils																	
SOIL HAZARDS: Subsidence																	
Wildfire		x	x							x							
Epidemic	x		x			x				x				x		x	
Transportation Accident	x		x			x				x				x		x	

7.6. Hazard Risk Ranking

After developing a comprehensive profile and analysis of hazard impacts and consequences, the Town LPC conducted a measurable 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. Local hazards are consistent with those considered by other county municipalities and are described in **Section 3, Base Plan**.

Table Annex 7-d: Hazard Index and Analysis for the Town of Frankfort

Hazard	Location	Probability of Future Occurrences	Magnitude/ Severity	Significance	Overall Risk Score	Ranking
Avalanche	1	1	1	1	4	Low
Drought	1	1	1	1	4	Low
Earthquake	1	1	1	1	4	Low
Extreme Heat	3	3	1	2	6	Low
Flood: Dam/Levee Failure	2	1	2	2	7	Low
Flood: Ice Jam	3	2	4	3	12	Medium
Flood: High Groundwater and Local Drainage	2	4	4	3	13	High
Flood: Riverine & Flash Flood	2	3	3	3	11	Medium
Landslide	2	2	1	1	6	Low
Severe Weather: Hail	1	1	1	1	4	Low
Severe Weather: High Wind	3	3	2	2	10	Medium
Severe Weather: Lightning	1	3	1	2	7	Low
Severe Weather: Thunderstorm/Heavy Rain	2	3	3	3	11	Medium
Severe Weather: Winter Weather	3	3	2	3	11	Medium
Soil Hazards: Erosion	2	2	1	1	6	Low
Soil Hazards: Expansive Soils	1	1	1	1	4	Low
Soil Hazards: Subsidence	1	1	1	1	4	Low
Wildfire	2	1	1	1	5	Low
Epidemic	2	1	1	1	5	Low
Transportation Accidents	3	2	2	2	9	Low

The Overall Risk Scores shown are associated with the following vulnerability classifications:

- Low: Minimal potential impact. Minimal property damage or loss of life expected.
- Medium: Moderate impact and threat level to the population and/or built environment. Potential damage more isolated, less costly than a widespread event.
- High: Widespread potential impact and threat to the general population and/or built environment. Hazards in this category may have occurred in the past.

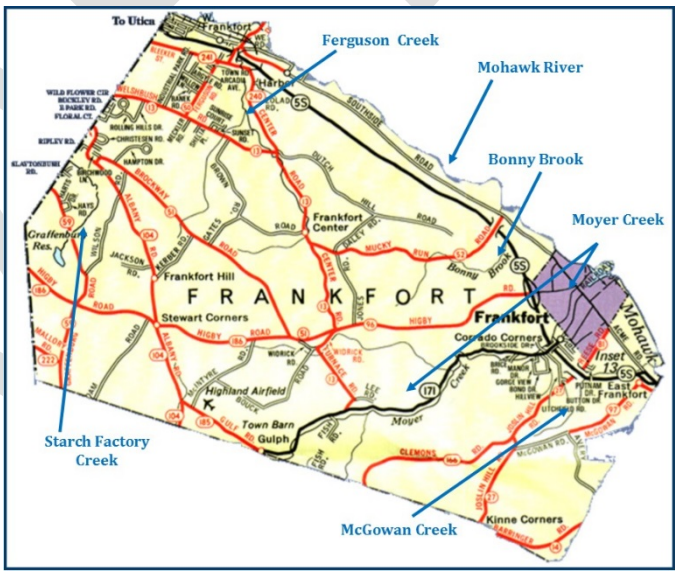
The following chart shows that one hazard was identified as being of high concern and five were identified as medium hazards of concern. These hazards are either flood-related or a consequence of severe storms. This reinforces data shown in **Table Annex 7-b** that summarizes hazard type by frequency.

High Hazard	Medium Hazards
▪ High Groundwater and Local Drainage (13)	▪ Flood - Ice Jam (12) ▪ Flood: Riverine & Flash Flood (11) ▪ Severe Weather: High Wind (11) ▪ Severe weather: Thunderstorm/Heavy Rain (11) ▪ Severe weather: Winter Weather (11)

7.7. Hazard Vulnerability Assessment

Flood

Maps in Attachment 7-A show the floodplains of the Mohawk River and Moyer Creek, which flow through both the town and village of Frankfort. The map at right depicts these two water bodies and others located in the town of Frankfort. These include McGowan Road Creek and its two tributaries, Fifth Avenue Creek and Kent Boulevard Creek, which drain the eastern region of Frankfort just inside the town boundary with the Village of Ilion. Mohawk tributaries Bonnie Brook and Ferguson Creek cross town land between the boundaries of the village of Frankfort in the east, and the City of Utica in the West. Near the city of Utica border, on the town's far western side, runs Starch Factory Creek, which has been characterized as "bone dry" outside the rainy season, and as running at full flow during heavy precipitation. The Mohawk River forms the northern boundary of both the town and village of Frankfort.



Severe Weather: Winter Weather, High Wind, Thunderstorm/Heavy Rain

The LPC ranked three types of severe weather as hazards of medium concern: high wind, thunderstorms and heavy rains; and winter weather. These hazards affect the entire community. The most significant consequences were identified as damage to transportation infrastructure; impact on emergency response operations; utility damage or failure from downed power lines; and sewer system damage or failure.

Frankfort's history of severe winter storms is shown in this 1950s photo of St. Theresa's Mission Church in Frankfort Center. ***Source****:* *http://herkimer.nygenweb.net*

Ryan E. Pedone Collection of Tractor Photos, clearing Frankfort roads after a winter storm.
Source: Hank's Truck Pictures

7.8. Capabilities Assessment and NFIP Data

The Town 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 fall into the following categories: planning and regulatory; administrative and technical; safe growth; financial; and education and outreach resources.

Planning and Regulatory Capabilities

A comprehensive plan provides a framework by which to manage future development. This plan is currently being reviewed and updated to ensure concurrency with other plans and present growth needs. Emergency operations and continuity of operations (COOP) plans guide departmental response and coordination in the event or a disaster or emergency. The Town adopted the 2015 update of the International Code Council structural codes and standards. The subdivision ordinance covers acquisition of land for open space and public recreation use.

Planning and Regulatory Tools

- Comprehensive Plan
- Continuity of Operations Plan
- Floodplain Management Plan
- Zoning Ordinance
- Subdivision Ordinance
- Emergency Management Plan
- Zoning ordinances
- Site plan review requirements
- ICC Building Code
- Floodplain ordinance
- Class 4 fire ISO rating

Administrative and Technical Capabilities

The code enforcement officer serves as the community floodplain manager and is trained in building and infrastructure construction practices. The town hires GIS, engineering, surveying and other technical specialists as need. The highway superintendent works with counterparts at the county and state levels to ensure seamless work on road and bridge projects.

Safety and Safe Growth Capabilities

The current review of the comprehensive plan will affect the development of policies and ordinances related to transportation, environmental management and public safety. The building code contains provisions to strengthen or elevate construction so that buildings will withstand hazard forces. One of the proposed action items discussed in the mitigation strategy addresses a major highway that is often flooded during heavy rain. Economic development or redevelopment strategies include provisions for mitigation of natural hazards. The town and village of Frankfort are served by three fire stations, one in the village and two in the town. The police department is a part-time professional force that patrols roughly 100 miles of roadways. The force consists of a part-time lead officer, two full-time officers, and 15 part-time officers. The town is proud of the way its full- and part-time staff and volunteers cover the large territory included in the jurisdiction.

Financial Capabilities

Above: Hilltop Playground, with ball fields visible in the background.
Below: Municipal football field.
Source: Village of Frankfort

The Town of Frankfort has the capability of using capital funding for specific projects, including road maintenance and highway upgrades. The potential exists for such funding to be used for mitigation projects. The community does not charge fees for water and other utilities because all services are provided by entities located outside the town. Property owners are charged when the town connects water and sewer lines to existing branches. The community has incurred debt through general obligation or special tax bonds. During times of disaster, the Town received emergency funding from NYS for storm cleanup and infrastructure repair. Examples of public-private partnership include local sports organizations, such as the Pop Warner Youth Football League, purchasing equipment for teams participating in activities co-sponsored by Town and Village recreational departments. Small businesses in both communities also sponsor teams that participate in football, soccer, softball, and baseball programs hosted by municipalities.

Education and Outreach

The fire stations are instrumental in conducting safety and emergency management education and outreach. While staff conducts school-based programs, the best opportunity for community-wide penetration occurs at the annual Herkimer County Fair, permanently located at the village of Frankfort fairgrounds. At this event, fire personnel not only educate town and village residents, but those of the entire county. The six-day event attracts up to 60,000 attendees. Another participant, the American Red Cross, conducts outreach at the fair and provides emergency response and recovery services.

Herkimer County Fair 2017 logo
Source: Herkimer County Fair Facebook page

National Flood Insurance Program – Town of Frankfort

Table Annex 7-e provides a high-level view of how the Town administers the NFIP program.

Table Annex 7-e: Town of Frankfort Administration of the National Flood Insurance Program

Insurance Summary	
# NFIP policies in force	12
Total premiums	$8,686
Total coverage	$2,742,000
# Claims paid since 1978	4
Dollar value - paid claims	$11,601
# Substantial Damage claims	0
# structures with flood risk exposure	144
Repetitive Loss/Severe Repetitive Loss Properties	2
Areas of flood risk with limited NFIP policy coverage	Coverage is available, not all choose to purchase
Staff Resources	
Floodplain administrator certified	
Floodplain management an auxiliary function	Yes
NFIP administration services provided	Site review, floodplain ordinance
Barriers to an effective NFIP program	Funding, staff, lack of updated maps
Compliance History	
Standing with NFIP	In compliance
FIRM date	5/01/1985 [date of initial FIRM]
Last Community Assistance Visit (CAV) Community Assistance Contact (CAC)	CAV 4/23/2002
Next scheduled CAV or CAC	TBD
Sources: *NFIP Data updated 12/31/2016; NY Department of Environmental Conservation*	

The Town looks forward to receiving updated FEMA flood maps in 2018. The NFIP Community Status Book (below) illustrates how much research is needed to develop initial and updated flood maps. The chart shows that the Town received its initial flood hazard boundary map in 1974. This map is developed with less exact technical input when a hazard is first identified,

and it provides only a general estimate of hazard zones. The FIRM was in 1985, illustrating the length of time it takes to conduct a flood insurance study (FIS) and maps based on inputs such as historic, hydrologic, meteorological, and hydraulic data.

Federal Emergency Management Agency

NFIP ID #	Community	Initial Flood Hazard Boundary Map	Initial FIRM	Current Date of Effective Map	Date Joined NFIP
360312	Frankfort, Town	3/01/1974	4/17/1985	12/20/2001	4/17/1985

7.9. Community Assets at Risk

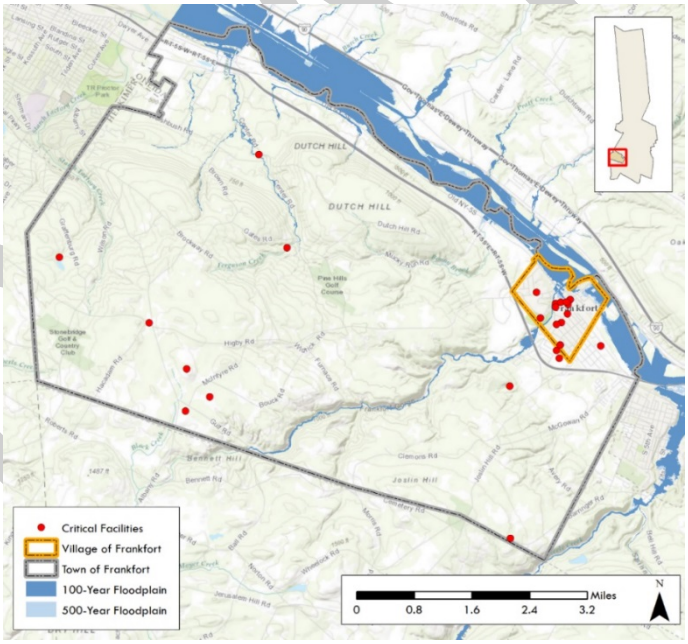
The assets described in **Table Annex 7-f** are vulnerable to one or more hazards. The low end of estimated replacement value for the assets listed in $11,151,122. Values for several assets shown are not readily available, so the total figure would likely be higher. The monetary value is only the financial loss that would be sustained should these properties be lost. Those marked with an asterisk (*) are included on the National Register of Historic Places, which means the structures have historic and social value not measured in dollars.

Table Annex 7-f: Town of Frankfort Administration of the National Flood Insurance Program

	Name of Asset	Facility Type	Replacement Value	Hazard Information
1	Town of Frankfort Town Hall * 201 Third Avenue	Government Operations, Historic	$ 618,056	Flood, Severe Weather
2	Village of Frankfort Village Hall 110 Railroad Street	Government Operation	$ 400,000	Flood, Severe Weather
3	Town of Frankfort Highway Garage 1896 Albany Road	Government Operations	$ 175,000	Flood, Severe Weather
4	Town of Frankfort Police Department 110 Railroad Street	Emergency Response	$ 150,000	Flood, Severe Weather
5	Village of Frankfort Post Office * 130 E. Main Street, Ilion	Government, Historic	$ 250,000	Flood, Severe Weather
6	Frankfort-Schuyler Central Schools Frankfort Schuyler Middle/High School 605 Palmer Road	Education, COOP, Shelter	$ 2,566,000	Severe Weather
7	Reese Road Elementary School 610 Reese Road	Education, Shelter	$ 3,062,500	Severe Weather
8	Frankfort Fire Department 158 S. Litchfield Street	Emergency Response	$ 551,667	Flood, Severe Weather
9	Frankfort Hill Fire Department 2235 Albany Road	Emergency Response	$ 256,222	Flood, Severe Weather
10	Frankfort Center Fire Department 799 Center Road	Emergency Response	$ 425,556	Flood, Severe Weather
11	St. Francis Society/Italian Society 152 8th Avenue	Non-profit, Social Services	$ 100,972	Severe Weather
12	Frankfort Free Library 123 South Frankfort Street	Government	$ 236,111	Severe Weather
16	Balloon Farm Bed and Breakfast * 128 Cemetery Street	Historic and Economic	$ 100,000	Flood, Severe Weather
17	Remington House * 1279 Upper Barringer Road, Ilion	Historic and Economic	$ 100,000	Flood, Severe Weather
18	Christian Assembly Church of Schuyler	Church, Social Services	$ 666,667	Flood, Severe Weather

	Name of Asset	Facility Type	Replacement Value	Hazard Information
	3659 State Route 5			
19	Our Lady Queen of Apostle Church 412 S. Frankfort Street	Church, Social Services	$ 582,083	Flood, Severe Weather
20	First United Methodist Church 211 Washington Street	Church, Social Services	$ 686,111	Flood, Severe Weather
21	Frankfort Marina 122 Marina Drive	Recreation, Economic	$ 224,167	Flood, Severe Weather
22	Canal Street Memorial Park	Historic and Recreation		Flood, Severe Weather
23	Firefighters Memorial Park 200 S. Litchfield Street	Historic and Recreation		Flood, Severe Weather
24	Frankfort Municipal Park	Historic and Recreation		Flood, Severe Weather
25	Frankfort Recreational Dams 1/2 (Lock #19)	Infrastructure		Flood, Severe weather

Additional information about critical facilities came from the October 2012 *Mohawk River Basin Floodplain Assessment, Executive Summary, DHS-FEMA Competitive Grant, Floodplain Coordination and Outreach.* This report specifically listed critical facilities located in in the Mohawk River floodplain, including two recreational dams at river Lock #19. The map below shows the location of many of these assets located in the town and village of Frankfort.



Sources: ESRI, USGS, *Mohawk River* Basin Floodplain Assessment, *Final Report HHS-FEMA Competitive Grant, Floodplain Coordination and Outreach*, October 17, 2012

Table Annex 7-g shows the value of property exposed to flood and to all other hazards. The first includes 185 residential and business structures located in either the 100- or 500-year flood zone. The second includes the value of all properties vulnerable to hazards that affect the entire community: extreme heat, high wind, lightning, thunderstorm/ heavy rain and winter weather. While they are both relatively small communities, the town and village of Frankfort include many critical facilities at risk for flood.

Table Annex 7-g: Summary of Potential Hazard-Related Exposure/Loss—Town of Frankfort

Hazard Type	Population	Residential Buildings		Commercial Buildings		Critical Facilities	
	Exposed Population	Number	Potential Exposure/Loss:	Number	Potential Exposure/Loss:	Number	Potential Exposure
Flood	575	145	$ 8,745,518	40	$ 9,164,635	20	$10, 814,029
All Other Hazards	3,334	842	$ 83,890,351	1	$ 3,270,588	25	$ 11,151,122

7.10. Hazard Mitigation Action Plan, Prioritization of Recommended Initiatives

The LPC included as **Table Annex 7-C.1** the three mitigation actions included in its mitigation plan. They were ranked in order of importance based on the following criteria: public safety; funding availability; the potential for matching funding; the benefit cost analysis; technical feasibility; and time until project completion. shows all proposed mitigation strategies. The appendix also includes a project worksheet for each action item, that describes the strategy in more detail. One of the three projects presented was recommended in the final report of the NY Rising Herkimer County working group. The proposed actions include: improving the seven bridges that cross Frankfort Gorge on Highway 171; providing a permanent solution to drainage problems on the Acme Road Ramp to Route 5S; and installing stormwater sewers in the Extension neighborhood, where water accumulates during a heavy downfall.

7.11. Status of Previous Plan Initiatives

This jurisdictional annex summarizes the Town's first complete effort at managing the hazard mitigation planning process. The community has no formal previous mitigation action items to monitor or on which to report. However, several efforts that contribute to progress in reducing risk and losses from hazards were completed in the past or are in progress.

1. ***Participating in local flood studies.*** The Town and the Village of Frankfort both participated in developing an assessment of Mohawk River and Moyer Creek. These studies are listed in **Appendix 2-E, Base Plan**, along with other policies, plans, studies and reports consulted during the mitigation planning process.
2. ***Repairing access ramp from Acme Road to Route 5S.*** The highway superintendent reported that this major intersection is prone to flooding. The Town excavated a 250' foot ditch to serve as a collection basin on the north side of the access road. Debris has filled in the ditch, indicating that a more long-term solution is needed. This concern is addressed in action item TOF-003. The project affects a county road, so the Town would partner with Herkimer County to carry out the mitigation action.
3. ***Post-disaster repairs to County Road 171 by the NYS Department of Transportation.*** County Road 171, also known as Frankfort Gorge, crosses Moyer Creek in seven locations. Bridge crossings are repaired as needed but remain in precarious shape, thereby putting vehicular traffic at risk. This project was cited in the 2014 Herkimer Rising report and is included in the mitigation strategy as action item TOF-001.

7.12. Action Plan

The Town code enforcement officer, who served as the primary local contact on the Herkimer County HMWG, will monitor the action plan by working with the person or position designated as responsible for seeing that each project is completed. The superintendent of highways will oversee all three projects because they are in his purview. The codes officer will request reports from the superintendent every six months. Both will review progress annually before the yearly meeting of the HMWG to follow up on projects countywide.

7.13. Plan Maintenance

The table below provides a description of monitoring, evaluating and updating procedures that the Town of Frankfort mitigation planning representative on the HMWG will use to maintain the plan. These procedures are further described in **Section 5, Base Plan** and will include jurisdictional participation.

Monitoring the Plan	• Represent the jurisdiction during the monitoring process • Collect and report data to the HMWG and County Mitigation Coordinator • Record and document all jurisdictional monitoring activities • Assist in disseminating reports to stakeholders and the public • Promote the mitigation planning process and solicit public input
Evaluating the Plan	• Represent the jurisdiction during the evaluation process • Collect and report data to the HMWG and County Mitigation Coordinator • Record and document jurisdictional evaluation efforts. • Disseminate information and reports to stakeholders and the public
Updating the Plan	• Represent the jurisdiction during the planning cycle, including plan review, revision and update process • Collect and report data to the HMWG and County Mitigation Coordinator • Record and document jurisdictional plan review and revisions • Disseminate information and reports to stakeholders and the public

Plan Maintenance Schedule

- Monitoring: Annually, and/or following major disaster(s)
- Evaluating: Annually, and/or following major disaster(s)
- Updating: Annual Tasks, conducted over five-year planning cycle

Procedures for plan monitoring, evaluation and updating are in **Section 5, Base Plan**.

Attachments

7-A Moyer Creek Flood Assessment Maps

7-B Media Coverage of Disasters and Recovery Efforts

7-C Mitigation Strategy and Action Worksheets

7-D Proposed Housing Options for Residents Displaced during a Disaster

7-E Updated and Historical Flood Maps

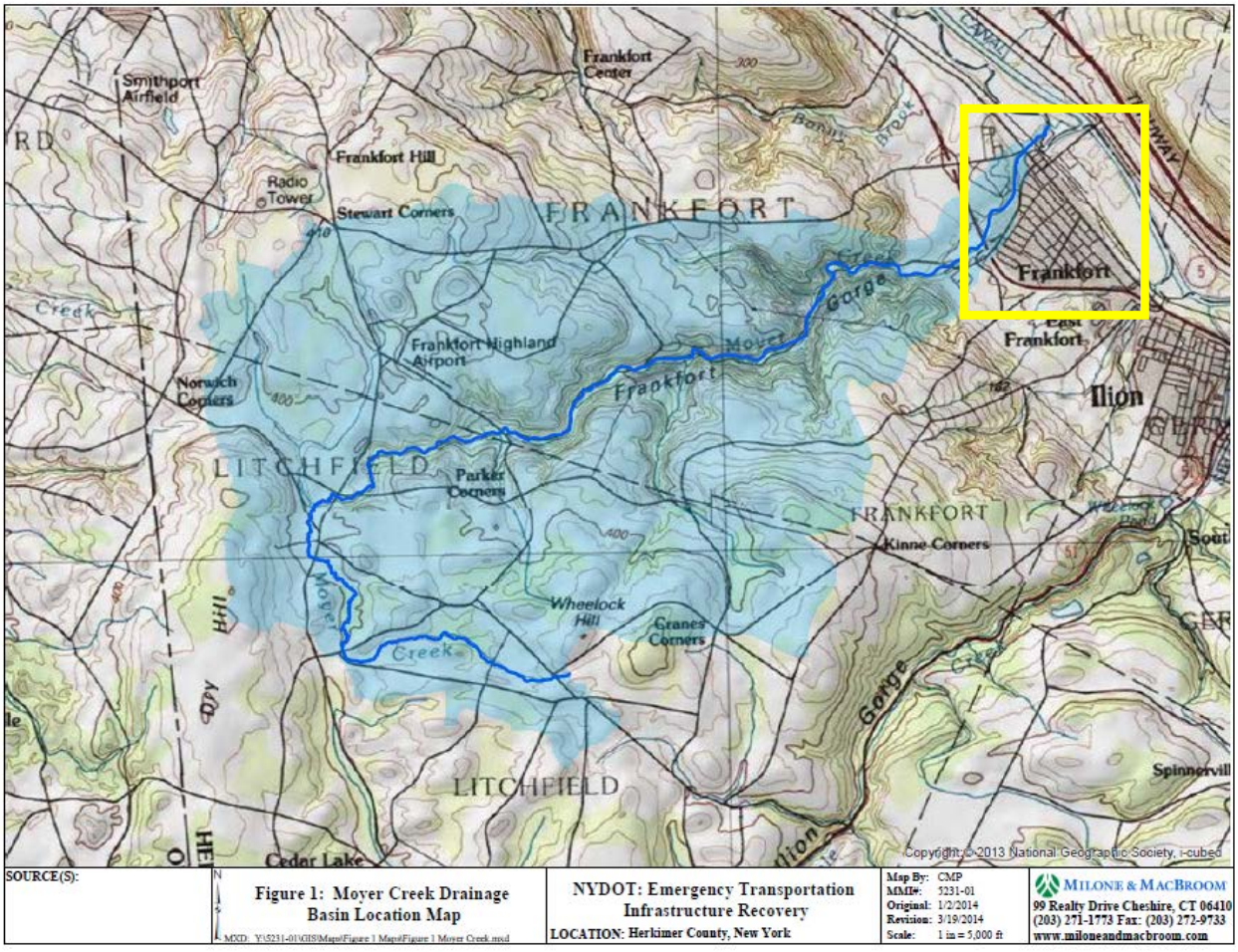
7-F Adoption Resolution

7-G Land Use Maps

7-H Community Development Trends

Attachment 7-A: Moyer Creek Flood Assessment Maps

The town of Frankfort and the village of Frankfort, located within the town, lie within the drainage basin and floodplain shown on the next two maps. The first map shows the Moyer Creek drainage basin, and the second shows the creek floodplain. The yellow box shows the approximate boundaries of the village. The maps were taken from the 2014 report titled *Emergency Transportation Infrastructure Recovery Water Basin Assessment and Flood Hazard Mitigation Alternatives*, *Moyer Creek.* The FEMA-funded report was overseen by the NYS Department of Environmental Conservation and report findings gathered by engineering firm Milone and MacBroom, LLC.



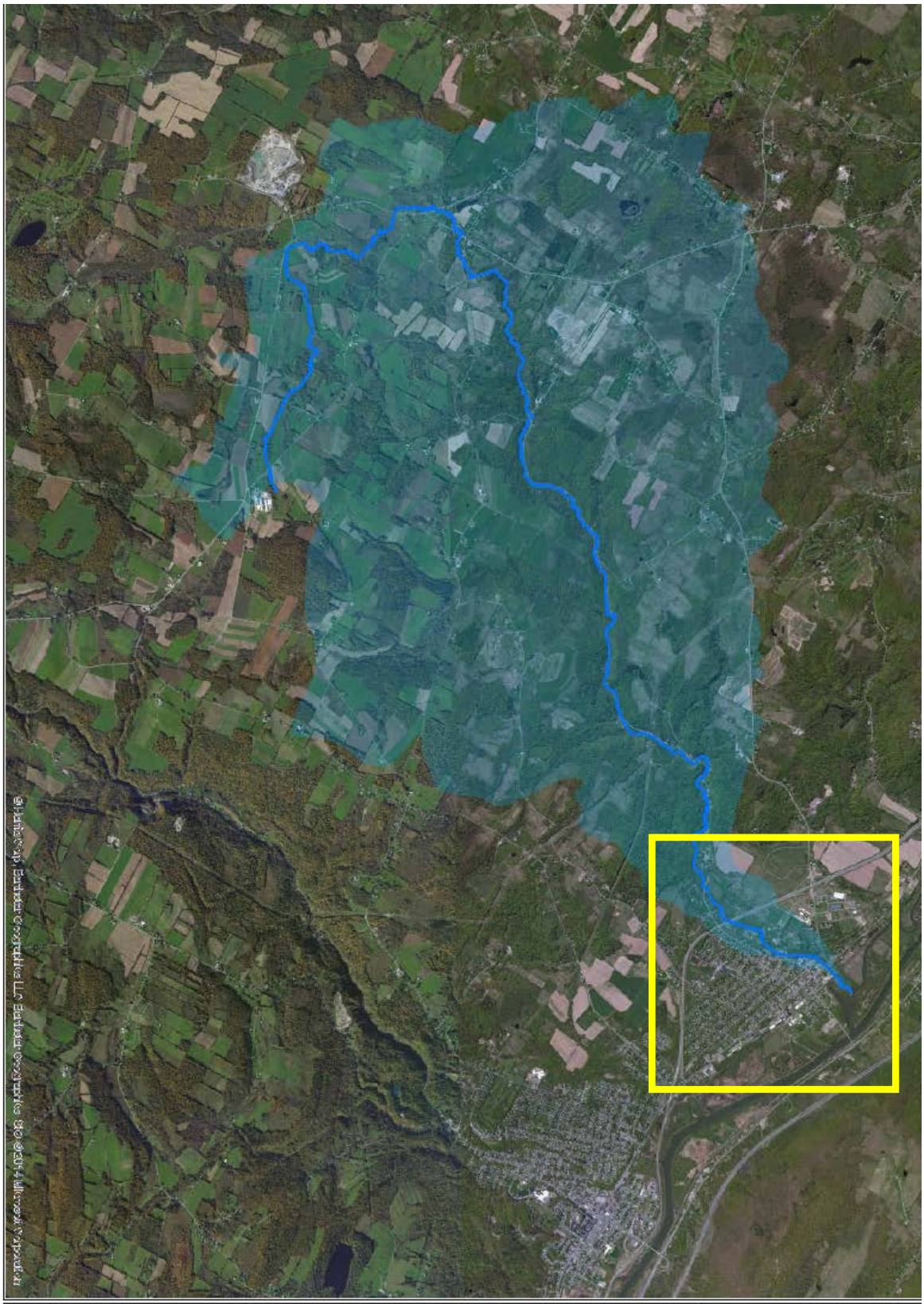


Figure 3	Map By: CMP MMI#: 5231-01 MXD: 1st Version: 01/02/2014 Revision: 3/19/2014 Scale: 1 in = 4,000 ft	Figure 3: Moyer Creek Drainage Basin Aerial NYDOT: Emergency Transportation Infrastructure Recovery Herkimer County, New York	SOURCE(S):

Attachment 7-B: Media Coverage of Disasters and Recovery Efforts

Department of Environmental Conservation | Recreation | Nature | Prevent & Control Pollution | Regulatory

For Release: Thursday, August 20, 2015

DEC and DOS Announce $9.4 Million for Flooding and Resiliency Projects in the Mohawk Valley

As part of Governor Andrew M. Cuomo's Capital for a Day in Utica, the New York State Department of Environmental Conservation (DEC) and New York State Department of State (DOS) announced the state will provide $9.4 million for flood resiliency and community reconstruction projects in Oneida, Herkimer and Montgomery counties.

The state will award $8.1 million for NY Rising Community Reconstruction Plan projects in response to 2013 Mohawk River Flooding in Oneida, Herkimer and Montgomery counties with each County receiving $2.7 million. DOS, in consultation with DEC, led the planning efforts for NY Rising and continues to work with communities by providing planners to oversee development of local reconstruction plans to ensure a focus on resiliency. These plans identify projects needed to reduce risk and expand economic development in NY Rising communities.

[Some of the Herkimer County projects are listed below. The complete announcement can be found at http://www.dec.ny.gov/press/103045.html.]

Herkimer County		
Cost	**Municipality**	**Description**
$60,000	Norway (T)	Install approximately 150 linear feet of stacked and pinned stone along the streambank to protect Newport-Gray Road.
$10,600	Frankfort (V)	Replace a collapsed pipe and rehabilitate access road to the Village's drinking water holding tank.
$514,000	Newport (T) Poland (V)	Rehabilitate and fill the washout, build an access road, fill the erosion area, install an erosion blanket and fence, and replace compromised drinking water transmission line.
$264,000	Manheim (T)	Rehabilitate damaged ditch along Timmerman Road to prevent recurring Flooding and reduce risk of damage to the road and recent repairs.
$750,000	Frankfort (V)	Restore and rehabilitate the Moyer Creek bank failure near Lehman Park in the Village of Frankfort.

(Article truncated)

Flood resiliency projects discussed at open house

Article and photo by Donna Thompson, Times Trends Editor
April 30, 2014

Mohawk Village Trustee George Cryer and Rebecca Smith, also of Mohawk, discuss flooding issues during an open house Monday evening at Herkimer College. Cryer is also a member of the New York Rising Community Reconstruction Herkimer County Committee.

HERKIMER -- Herkimer County has been awarded $3 million in funding under the New York Rising Community Reconstruction Program for projects to assist communities affected by last summer's flooding.

Residents had the opportunity to find out what projects are being considered and to offer input during an open house Monday at Herkimer College. The focus of New York Rising is to develop a countywide resiliency strategy that will identify a range of actions that can be taken to better prepare for future storms. This was the second open house program offered to give residents an opportunity to discuss the process.

The projects local communities have proposed for funding include:

- Embankment repair at Lehman Park in the village of Frankfort. The village is seeking funding for the 25 percent FEMA cost share obligation.

(Article truncated)

Source: *http://www.timestelegram.com/article/20140430/NEWS/140439926*

Herkimer Officials Offer Input on Flood Projects

Photo and article by Donna Thompson, Times Trend Editor
March 25, 2014

Captions, from left.

1. *From left, Frankfort Village Trustee Mark Harris add project suggestions to a map on display during Monday's New York Rising open house at Herkimer College. Looking on are Village of Frankfort Clerk Karlee Tamburro and Herkimer County Legislature Chair Vincent Bono.*
2. *District 3 Herkimer County Legislator Robert Schrader talks with Lindsey Realmuto, of Cameron Engineering, during Monday's New York Rising open house at Herkimer College.*
3. *From left, Lt. John Wood of the local Salvation Army, David Berg, of Cameron Engineering, and Michael Schwartz, disaster program manager for the Red Cross of the Mohawk Valley, discuss disaster planning during Monday's open House at Herkimer College.*

Some of the damage from last year's June and July floods was on display during an open house Monday at Herkimer College.

(Article truncated) Source: *http://www.timestelegram.com/article/20140325/NEWS/140329458*

JULY 2, 2013 | Albany, NY

Governor Cuomo Activates NYS Flood Helpline

(July 2, 2013) Governor Cuomo today activated the NYS Flood Helpline to aid residents affected by widespread flooding across areas of New York State. New Yorkers can call the helpline for assistance, including important local contact information for the Red Cross and Salvation Army, health and safety tips, where to go to receive a tetanus shot, what to do in case of an oil spill or power outage, mental health assistance, and for other recovery needs as well. Life threatening emergencies should be reserved for 911.

NYS Flood Helpline: 1-888-769-7243

ROAD CLOSURES:

Herkimer County:

- Rt 5 between Manheim Road and Bitelman Road, closed in both directions due to a mud slide
- Rt 5 in Town of Little Falls, at Gun Club Road, alternating traffic due to a mud slide
- NY 168 in Mohawk between Columbia St/Rt 28 and Rt 167
- NY 169 in the Town of Herkimer, between Kelly Road and West End Road
- NY 51 between Ilion and Cedarville
- NY 5S East Main Street
- NY 80 in the Town of Stark, between the Otsego County Line and NY 5S
- In Fairfield Lynch Road
- In Frankfort Main Street, Avery Street, Southside Road, Widrick Road
- German Flats Lower End Elizabeth Road, Putts Hill
- Herkimer South Main at Steele, Folts Road
- Schuyler SR 5
- Rt 5S Water over Mucky Rum and Dyke Road
- Shells Bush Road Mudslide
- Higby Road and Coop Hill Road Washed Out
- Rt 28 Water over rod at Schader Hill
- Dyke Road
- Rt 51 at Steel Creek
- SR 169 at Middleville
- Brockway at Higby
- Fords Bush and Fire Hill

Source: *https://www.governor.ny.gov/news/governor-cuomo-activates-nys-flood-helpline*

Attachment 7-C: Mitigation Strategy and Action Worksheets

Table 7-C.1: Town of Frankfort - Mitigation Action Item Ranking

Project #	Mitigation Action	Related Mitigation Goal/ Objective	Hazard/ Project Type*	Life Safety & Property	Funding Availability	Matching Funds	Benefit Cost Review	Environmental Benefit	Technical Feasibility	Timeframe to Implement (ST or LT)	TOTAL SCORE
TOF-001	Frankfort Gorge Road Crossings	1/1.1	**Flood/SIP**	2	1	1	4	4	4	4	22
TOF-002	Install storm sewers along Extension Roads	1/1.1	**Flood/SIP**	2	1	1	4	4	4	2	18
TOF-003	Acme Road ramp to Route 5S	1/1.1	**Flood/SIP**	2	1	1	4	4	4	2	18

Table 7-C.2: Town of Frankfort - Mitigation Action Item Detail

Project #	Action	Hazards Mitigated	Priority	Critical Facility	Cost	Funding Source	Project Leader	Time frame to Initiation
TOF-1	Frankfort Gorge Road Crossings	Flood, Road Erosion	High	Yes	$250,000	NYS DOT and local match	Superintendent of Highways	1 year
TOF-2	Install storm sewers along Extension Roads	Flooding	Medium	Yes	$1,000,000+	Request legislative appropriation	Superintendent of Highways	2 years
TOF-3	Elevate Acme Road ramp to Route 5S	Flood, Erosion, debris collection	Medium	Yes	$600,000	NYS DOS NBRC $500,00 funding + 20% match https://www.dos.ny.gov/funding/rfa-17-nbrc/index.html	Superintendent of Highways	2 years

Hazard ranking criteria is shown on the next page.

Mitigation Project Ranking Criteria

The ranking criteria shown here are explained in detail in the Base Plan, Section 4 as part of a full discussions discussion of mitigation strategy development and ranking.

Category	Points	Criteria
(1) Life Safety/Property Protection	4	Likely to protect more than 50% of the population and/or critical infrastructure and community assets.
	3	Likely to protect at least 50 % of the population and/or critical infrastructure and community assets.
	2	Could potentially protect up to 25 % of the population and could potentially protect critical infrastructure and community assets
	1	Could potentially protect up to 10 % of the population and could potentially protect critical infrastructure and community assets
	0	Potential for protecting lives and critical infrastructure and/or community assets cannot be determined at this time.

(2) Funding Availability		(3) Probability of Matching Funds		(4) Benefit Cost Review	
4	Little to no direct expenses	4	Little to no direct expenses	4	Likely to meet Benefit Cost Review
3	Can be funded by operating budget	3	Can be funded by operating budget	-	N/A
2	Grant funding identified	2	Grant funding identified	2	Benefit Cost Review not required
1	Grant funding needed	1	Grant funding needed	-	N/A
0	Potential funding source unknown	0	Potential funding source unknown	0	Benefit Cost Review unknown
4	Little to no direct expenses	4	Little to no direct expenses	4	Likely to meet Benefit Cost Review

(5) Environmental Benefit	4	Environmentally sound and relatively easy to implement; or no adverse impact on environment.
	3	Environmentally acceptable and not anticipated to be difficult to implement
	2	Environmental concerns and somewhat difficult to implement because of complex requirements
	1	Difficult to implement because of significantly complex requirements and environmental permitting
	0	Very difficult to implement due to extremely complex requirements and environmental permitting problems

(6) Technical Feasibility		(7) Timeframe of implementation	
4	Proven to be technically feasible	4	1 year or less (Short Term)
-	N/A	-	N/A
2	Expected to be technically feasible	2	2 – 5 years (Long-Term)
-	N/A	-	N/A
0	Technical feasibility unknown or additional information needed	0	More than 5 years (Long-Term)

Minimum = 0 Maximum = 28	**Ranking: Low: 0-10 Medium: 11-20 High: 21-28**

Action Worksheet			
Project Name:	Repair Frankfort Gorge Road Crossings		
Project	TOF-1		
Risk / Vulnerability			
Hazard of	Flash Flood & Riverine Flooding, Erosion		
Description of the Problem:	Rural State Highway171 crosses Frankfort Gorge seven times. Many of the bridges used in the crosses are narrow and the expansion joints need to be reinforced. The structures expand and contract because of settlement, temperature change, concrete shrinkage and vehicle weight. Improved expansion joints will allow the concrete to expand and contract without fear of bridge failure. Current alignment is poor.		
Action or Project Intended for Implementation			
Description of the Solution:	Replace undersized bridge crossings. Ensure new crossings are adequately sized and do not allow rocks, cement and other debris to clutter the waterway. Align bridges so they are more perpendicular to the creek. [See attached additional description.]		
Is this project related to a Critical Facility?	**Yes XXX**	**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.)			
Level of Protection:	50 Years	**Estimated Benefits (losses avoided):**	Prevent erosion, flash flooding and road damage, potential loss of life.
Useful Life:	50 Years		
Estimated Cost:	$250,000		
Plan for Implementation			
Prioritization:	High	**Desired Timeframe for Implementation:**	Summer 2018
Estimated Time Required for Implementation:	1 month	**Potential Funding Sources:**	Local taxes and DOT funding
Responsible Organization:	Highway Supervisor and DOT	**Local Planning Mechanisms to be Used in Implementation, if any:**	Floodplain management plan, Highway Department operations
Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	
Progress Report (for plan maintenance)			
Date of Status			
Report of			
Update Evaluation of the Problem and/or Solution:			

WATER BASIN ASSESSMENT AND FLOOD HAZARD MITIGATION ALTERNATIVES MOYER CREEK, HERKIMER COUNTY, NEW YORK

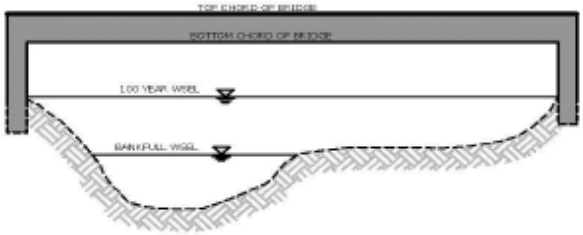
High-Risk Area #1 – Road Crossings in Frankfort Gorge

Site Description: Along Frankfort Gorge, Route 171 crosses over Moyer Creek a total of seven times with a distance of 3.6 miles. Many of the bridges have poor alignments with the creek and most of the bridges do not span the bankfull width therefore create hydraulic constrictions during peak flows. The undersized bridges along Route 171 include: East of Ball Road (340+50), West of Furnace Road (266+00), East of Furnace Road (235+50), D/S of Parking Area (148+00), and West of Brice Road (134+00).

Recommendations:

- Replace undersized bridge crossings as funding becomes available.
- Ensure new bridge crossings are adequately sized to span the regional bankfull width, and to safely pass severe flood events with the freeboard required by State of NY design standards.
- Consider alignment of bridges to a more perpendicular angle of approach.

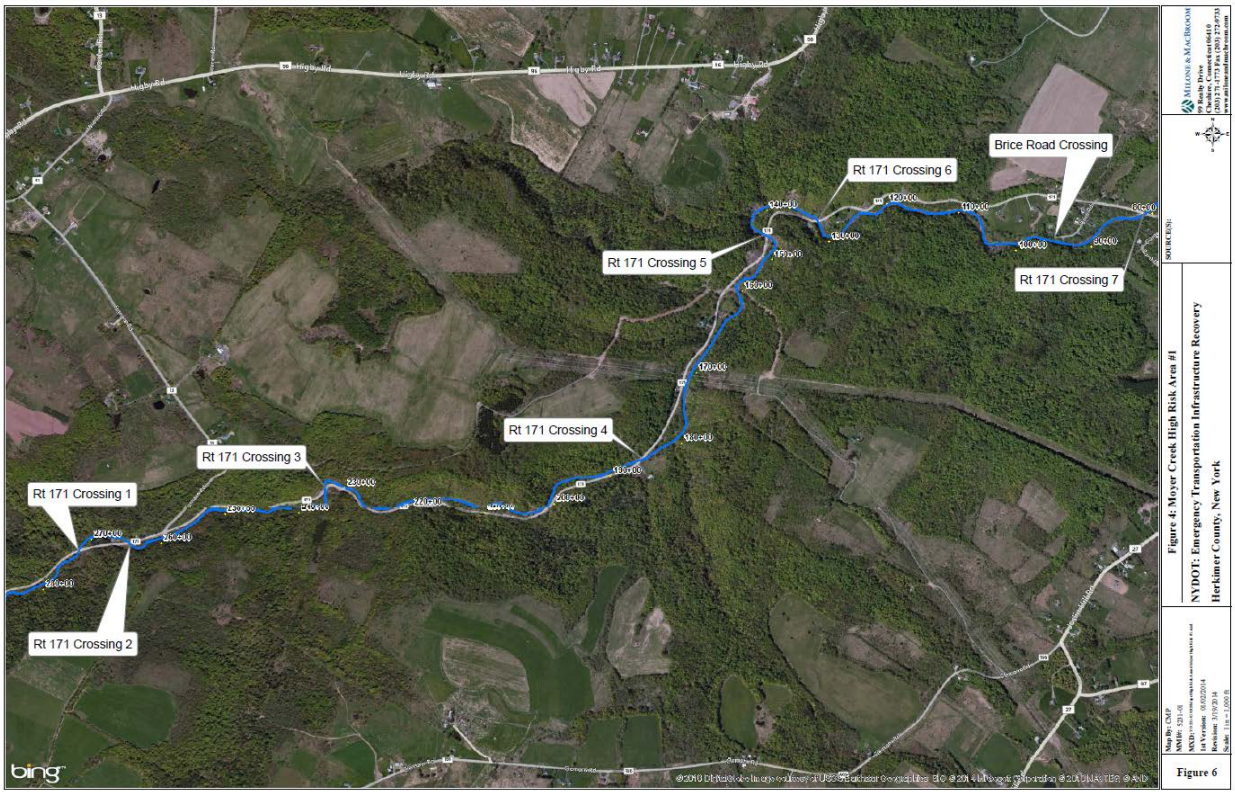
	BENEFITS
✓	Improved safety
✓	Reduction in debris jams
✓	Improved hydraulic capacity
✓	Reduced flood hazard
✓	Improved ecological connectivity

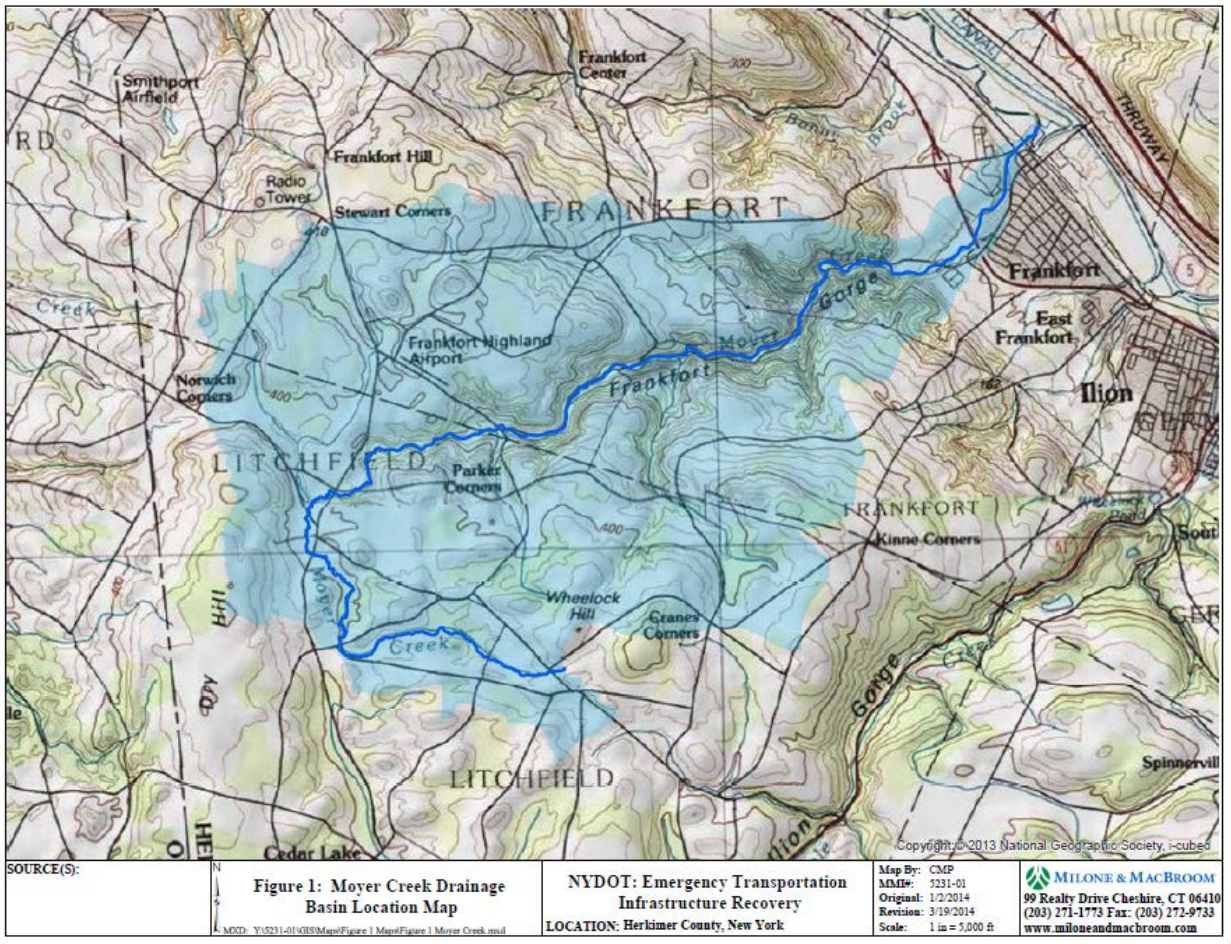


TYPICAL UNCONSTRAINED BRIDGE CROSSING

MILONE & MACBROOM®

The Google map above shows the path of Route 171 running east to west from the village of Frankfort through the town. The Milone and MacBroome, LLC, map below shows the location of bridge crossings, structures identified to be upgraded.





The path of Frankfort Gorge is clearly marked on this Moyer Creek Drainage Basin map.

The next page includes photos taken by the engineering firm conducting the Moyer Creek flood assessment. The images document deteriorating structures along Frankfort Gorge, beneath Highway 171. These pictures were taken near proposed project TOF-1.

Engineering, Landscape Architecture and Environmental Science
MILONE & MACBROOM®
99 Realty Drive
Cheshire, Connecticut 06410
(203 271-1773

Moyer Creek
Photo Log

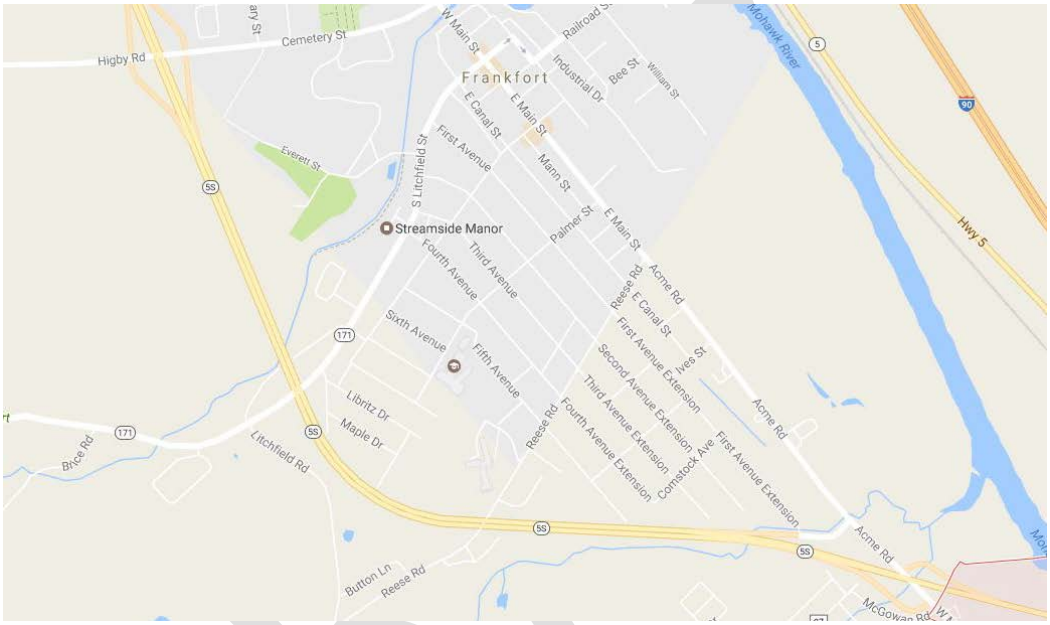
MMI# 5231-01
NYDOT
January 2014

PHOTO NO.: **1** DESCRIPTION: This represents the high relief in the upper reaches of Moyer as well as deteriorated grade control structures. Photo location is approximate at station 190+00.	
PHOTO NO.: **2** DESCRIPTION: At station 150+50 this tributary flows through a culvert beneath Rt 171 before entering Moyer Creek. This crossing becomes filled with debris during storm events causing flows to overtop the road.	

Action Worksheet			
Project Name:	Install storm sewers along Extension Avenues		
Project Number:	TOF-2		
Risk / Vulnerability			
Hazard of Concern:	Riverine and storm flooding		
Description of the Problem:	Five town roads named First Avenue Extension through Fifth Avenue Extension begin at Reese Road, where the village of Frankfort ends. There are no storm sewers in this neighborhood. Water collects in the streets, thereby exposing businesses, homes and residents to flood risk.		
Action or Project Intended for Implementation			
Description of the Solution:	Install storm sewers on both sides of First Avenue Extension through Fifth Avenue Extension from Reese Road to where the extensions end at Route 5S. Three critical facilities are affected: Reese Road Elementary School, Frankfort-Schuyler Elementary School, and Frankfort-Schuyler Middle School. They are located just west of the neighborhood, and children from the neighborhood in question attend these schools. Challenges arise when streets flood and parents or bus drivers must transport children to and from school. In the event of a disaster, residents would have difficulty navigating flooded streets to reach school shelters.		
Is this project related to a Critical Facility?	**Yes XXX**	**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.)			
Level of Protection:	100 Years	**Estimated Benefits (losses avoided):**	Repeated repairs, cost of Highway Department staff and resources. Potential for road erosion, vehicular damage, and harm to citizens driving or walking.
Useful Life:	100 Years		
Estimated Cost:	$1,000,000+		
Plan for Implementation			
Prioritization:	Medium	**Desired Timeframe for Implementation:**	3 years
Estimated Time Required - Implementation:	1 year	**Potential Funding Sources:**	Legislative appropriation request
Responsible Organization:	Highway Department	**Local Planning Mechanisms to be Used in Implementation, if any:**	Highway Maintenance and Improvement Program, Floodplain management
Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	
Progress Report (for plan maintenance)			
Date - Status Report:			
Progress Report:			
Update:			

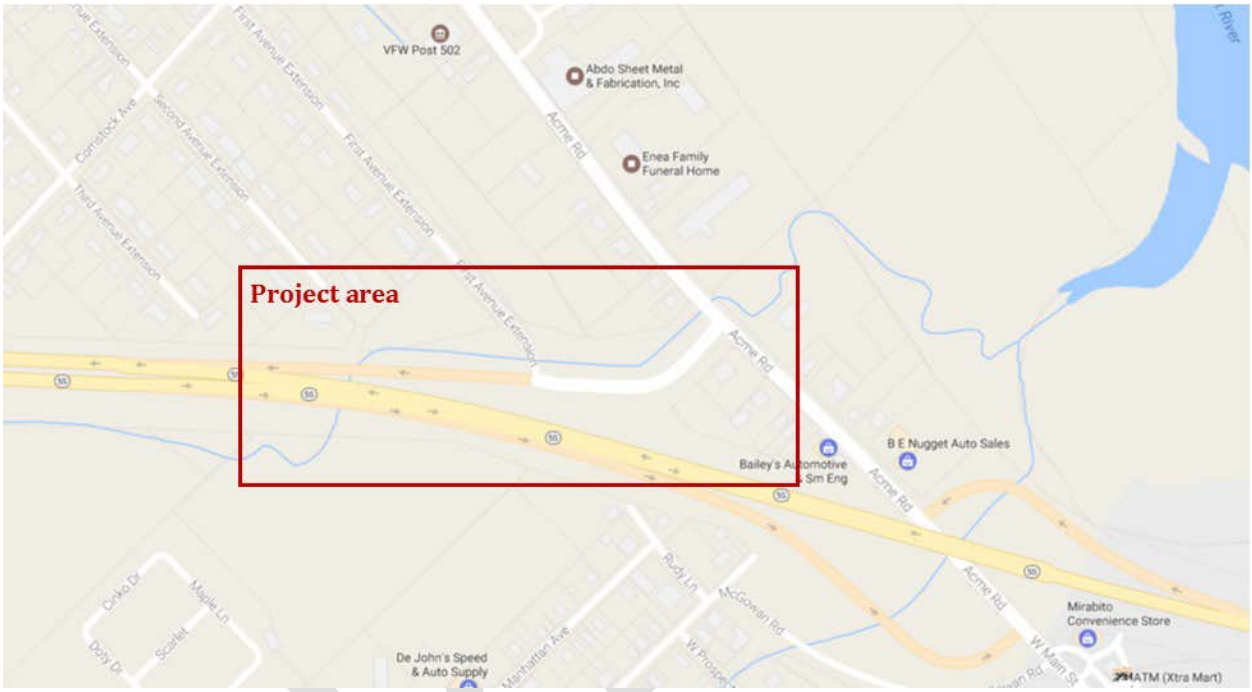
The Google maps below illustrate the neighborhood in which project TOF-2 is located. Reese Road is the eastern boundary of the village of Frankfort. First through Fifth Avenue are located in the village, and the roads are renamed as extensions after crossing Reese Road. As such, they are called First Avenue Extension through Fifth Avenue Extension. The street map at top shows First Avenue Extension Creek as it meanders through the area.

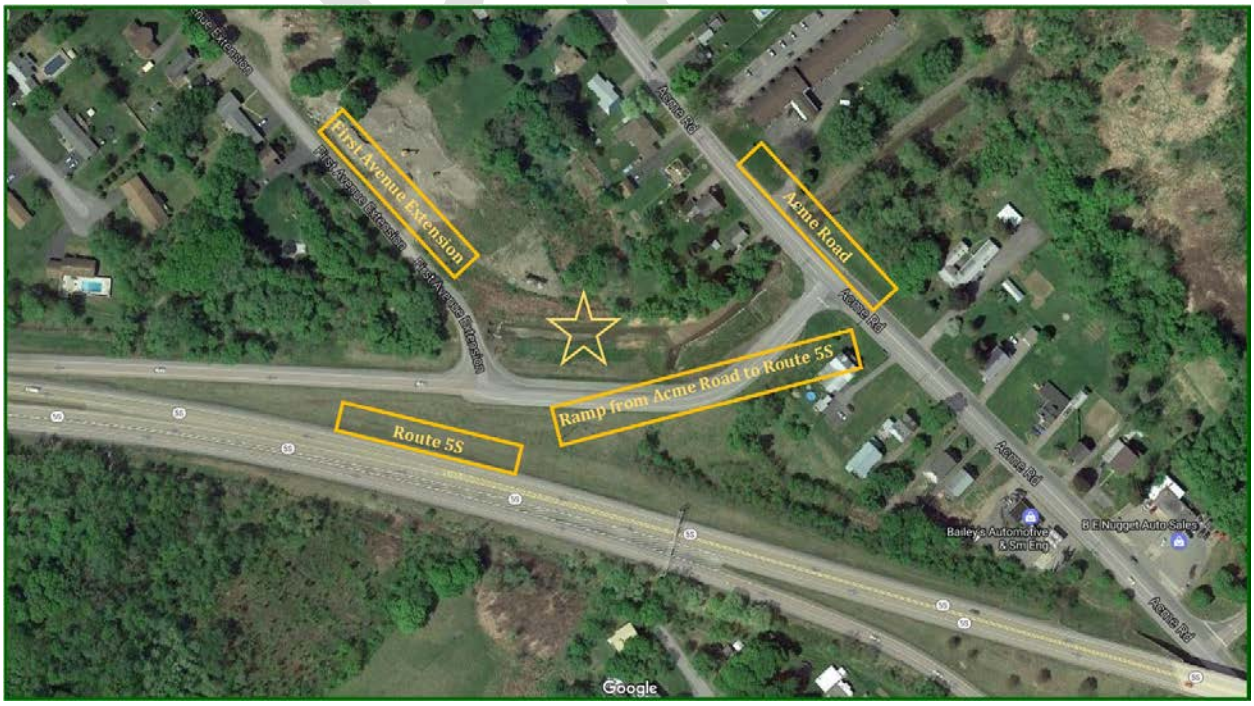
The topographical map at bottom shows Reese Road (orange line) running in a north-south direction. The extensions are marked with yellow lines. The map indicates that a large number of structures in the community are at risk from creek or street flooding.



Action Worksheet			
Project Name:	Elevate Acme Road ramp to Route 5S		
Project Number:	TOF-3		
Risk / Vulnerability			
Hazard of Concern:	Flooding and road erosion		
Description of the Problem:	Acme Road is the extension of Main Street in the village of Frankfort. It is a main thoroughfare running from west to east through the eastern side of the town. There is a ramp for traffic turning onto Route 5S, another major roadway. The ramp is flat, causing rainwater to collect and flood the roadway at a critical traffic intersection. Stopgap repairs made by the Town highway department are insufficient to solve the problem. The affected roadway is considered critical infrastructure.		
Action or Project Intended for Implementation			
Description of the Solution:	Elevate the roadway and upsize drainage capability.		
Is this project related to a Critical Facility?	**Yes XXX**	**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.)			
Level of Protection:	50 years	**Estimated Benefits (losses avoided):**	Repeated repairs, cost of Highway Department personnel and resources. There is the potential for road erosion, vehicular damage, and danger to citizens driving or walking in the area.
Useful Life:	50 years		
Estimated Cost:	$600,000		
Plan for Implementation			
Prioritization:	Medium	**Desired Timeframe for Implementation:**	2019
Estimated Time Required - Implementation:	6-12 months	**Potential Funding Sources:**	NYS DOS NBRC $500,00 funding + 20% match https://www.dos.ny.gov/funding/rfa-17-nbrc/index.html
Responsible Organization:	Town Highway Department	**Local Planning Mechanisms to be Used in Implementation, if any:**	Highway Department Maintenance Schedule
Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	Roadway keeps flooding, damaging roads, cards and putting lives at risk
	Continue ongoing response	$5,000year	The Town dug a water collection pit 250' deep but it keeps filling with water/debris and must be regularly cleaned. Still high probability of infrastructure and property damage.
Progress Report (for plan maintenance)			
Date - Status Report:			
Progress Report:			
Update:			

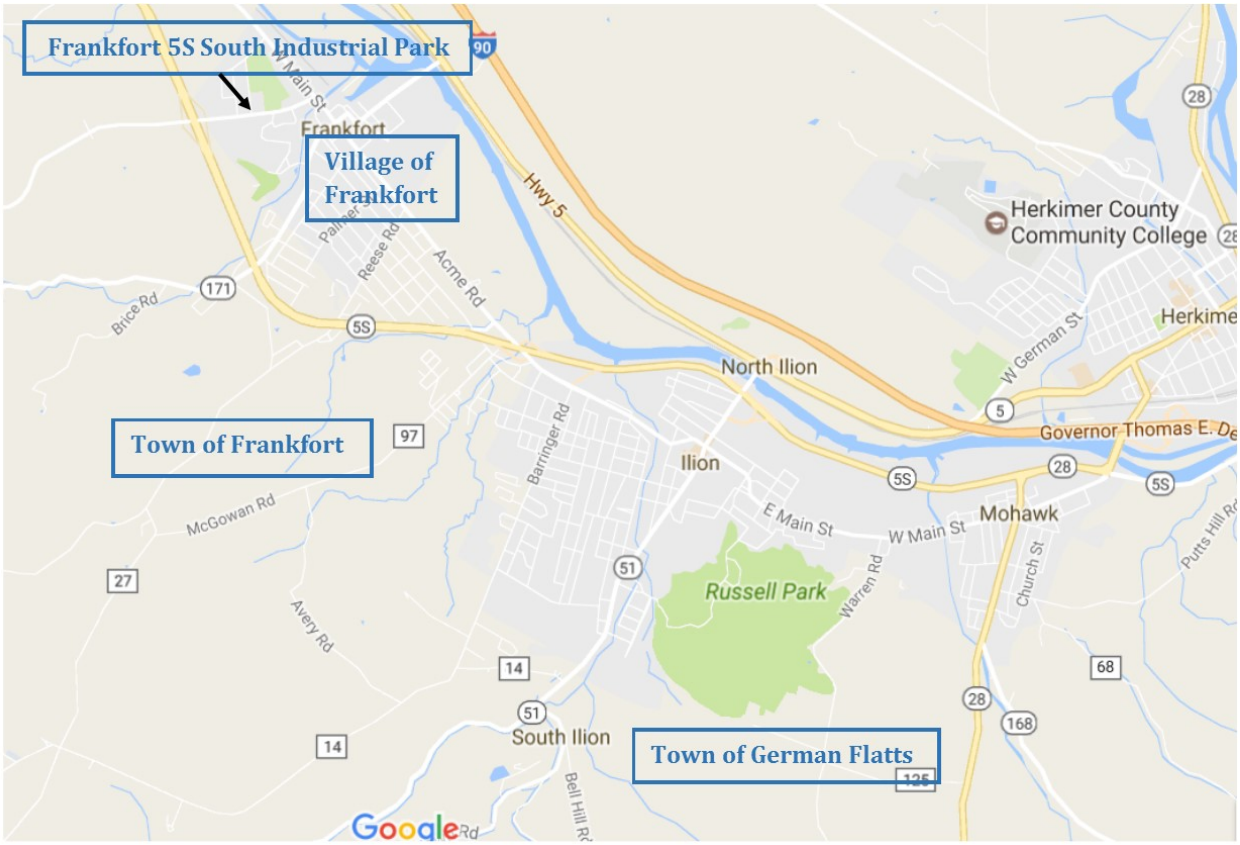
The following Google street and topographical maps show the location of the proposed road elevation project described in project TOF-3. The arrow on the bottom map shows where the town, as a stopgap measure, excavated a 250' ditch (marked by a star) to collect rain water and runoff from the creek at the end of First Avenue Extension, near the Acme Road ramp to Route 5S. The ditch quickly fills with debris and water and runs into the adjacent flats. The top map shows the project area surrounded by homes and small businesses.





Attachment 7-D: Proposed Housing Options for Residents Displaced during a Disaster

The Town of Frankfort has identified an alternate housing site in open space away from the floodplain on undeveloped land in the Frankfort Industrial Park on Highway 5S. The Town of German Flatts has also determined that this site could serve its residents in the same capacity given the lack of a more appropriate space within its borders.



The attached letter from the Town floodplain manager confirms the suitability of the site for temporary housing.

Date: June 12, 2017

To: Herkimer County Hazard Mitigation Coordinator

From: Mishele Spaman, Chief Enforcement Officer and Floodplain Manager
Town of Frankfort

Re: Temporary Disaster Housing in compliance with floodplain policies

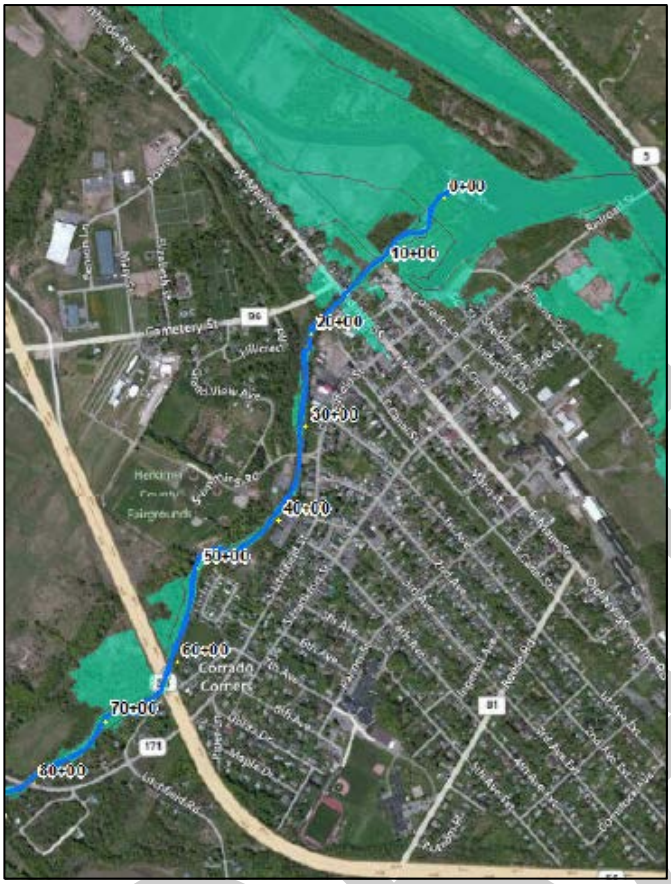
This letter addresses the need to comply with the hazard mitigation planning standards issued by the NY State Department of Homeland Security and Emergency Services (DHSES).

The Town of Frankfort has selected a space for alternate housing in the event of a disaster that entails the removal of a large number persons from their neighborhood because of unsafe conditions. The selected property is in the Frankfort 5S South Industrial Park. Several businesses operate there, but a large segment of open space remains that could be used to house temporary alternate housing. The land is not in a flood zone and those staying here on a temporary basis would be safe.

Please do not hesitate to call me if you need additional information.

Mishele Spaman, Chief Enforcement Officer and Floodplain Manager
frankfortcodes@hotmail.com
315-894-0922

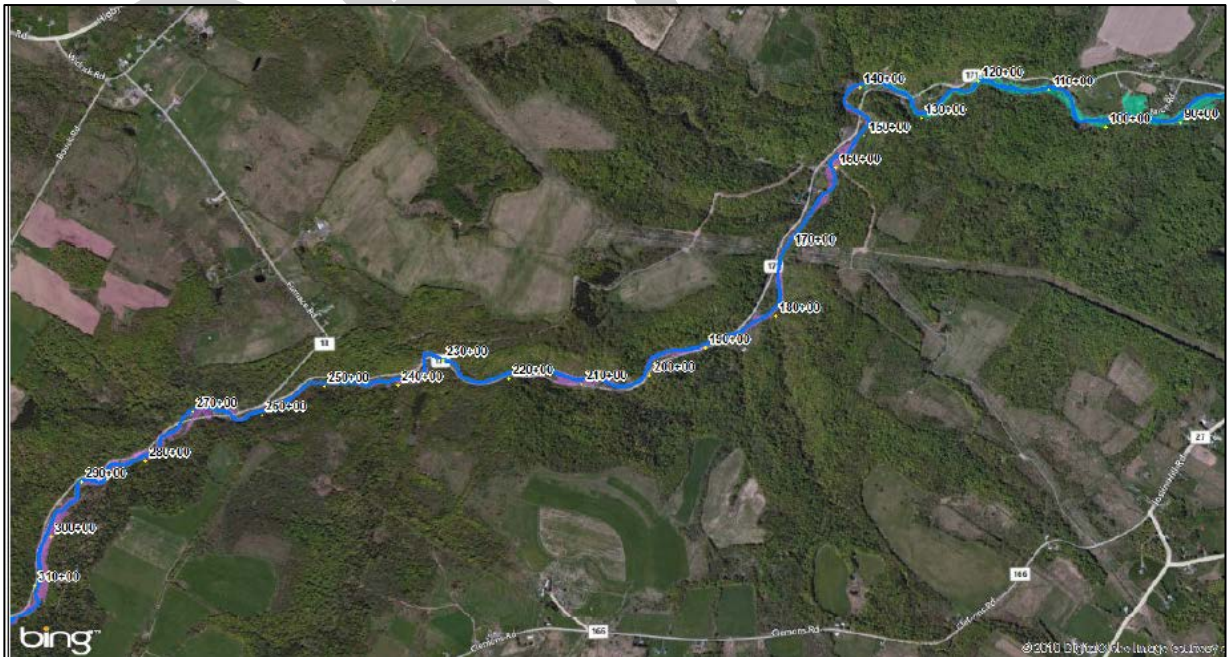
Attachment 7-E: Updated Flood Boundaries and FEMA FIRMS



Legend

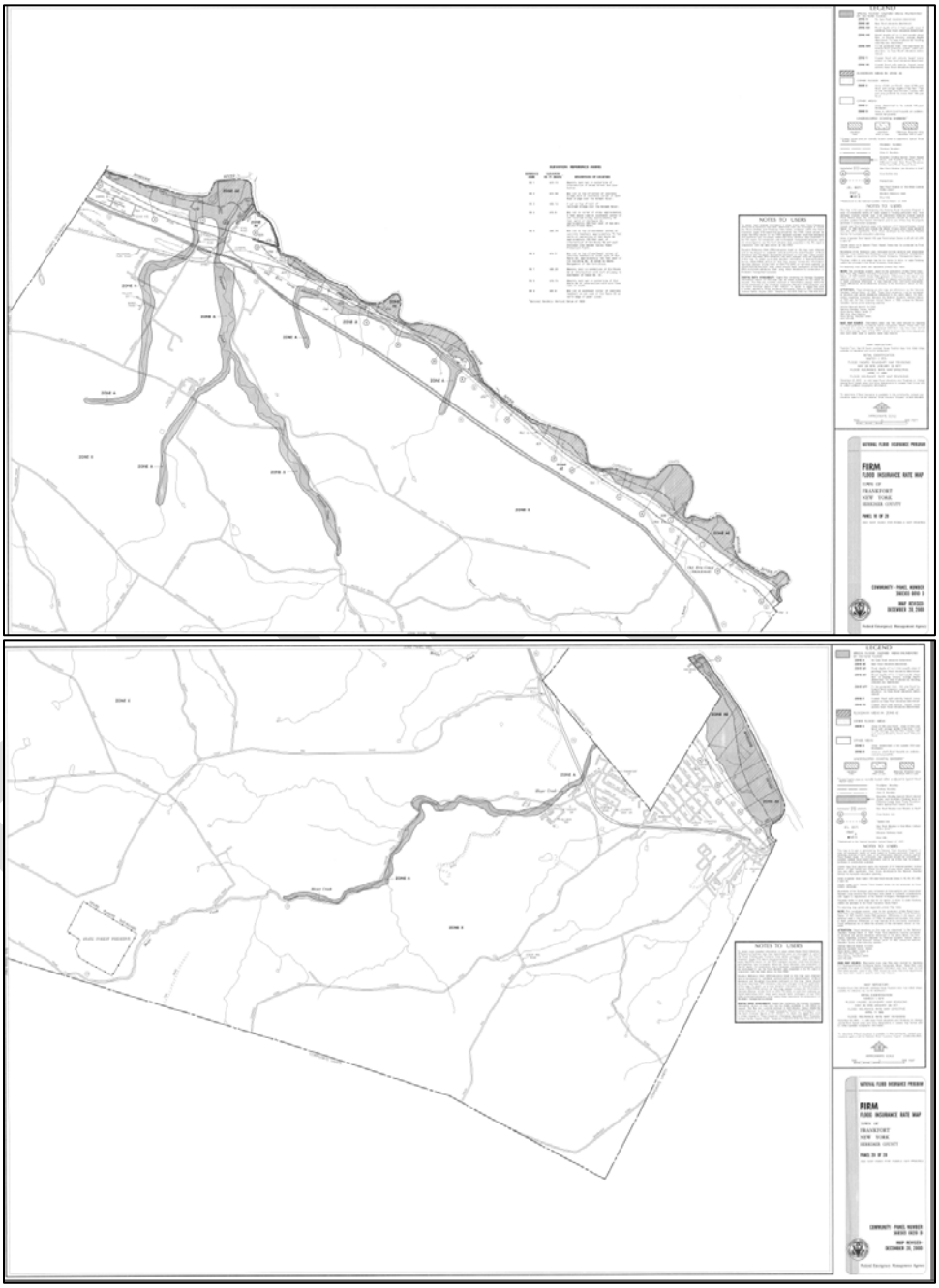
- A
- AE
- AO
- Watercourse

The 2014 maps on this page depict the flood zones of the Village (top) and Town (bottom) of Frankfort using the legend showing A, AE and AO zones. They were created by engineering firm Milone and MacBroom, LLC, and are considered to be an accurate representation of flood risk.

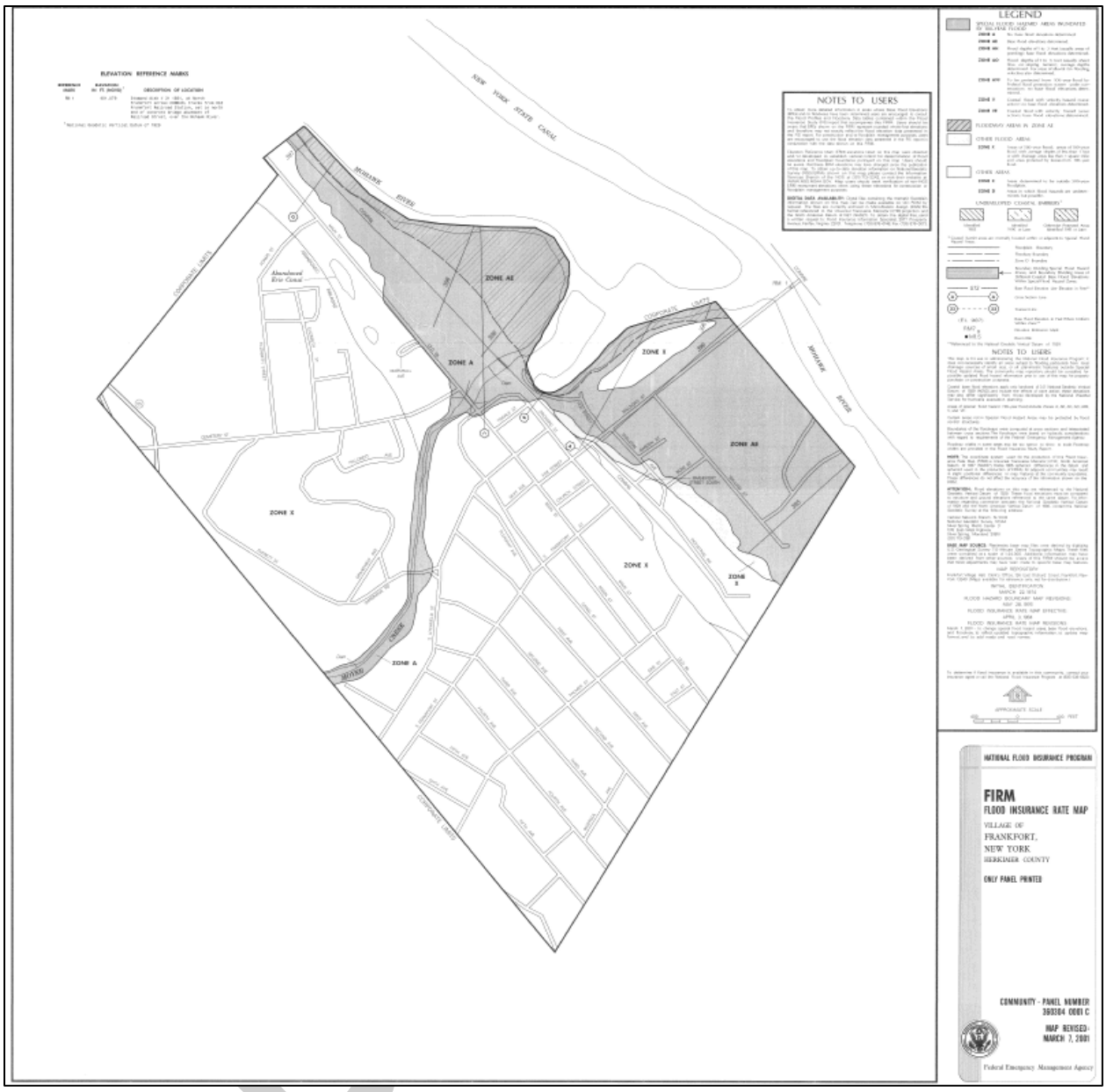


The two maps below are the official DFIRMS produced by the FEMA Map Service Center for the Town of Frankfort. The next page includes a DFIRM for the Village of Frankfort, also produced by FEMA. The maps were published in the year 2000. As such, they are relatively recent but do not take into account disaster-related changes in landscape that may have occurred in the past 17 years.

DFIRMS – Town of Frankfort



DFIRM – Village of Frankfort



Attachment 7-F: Draft Mitigation Plan Adoption Resolution

(Name of Jurisdiction) Town of Frankfort

(Governing Body) Town of Frankfort Town Board

(Address) 201 Third Avenue, Frankfort, NY 13340

RESOLUTION

WHEREAS, the Town of Frankfort participated in the planning process to develop the 2017 Herkimer County Multi-Jurisdictional Hazard Mitigation Plan (the Plan) with other members of the Herkimer County Hazard Mitigation Planning Group (HMPG); and

WHEREAS, during the same process, the Village Board of Trustees and senior staff also participated in developing the Town of Frankfort Jurisdictional Annex to the Plan; and

WHEREAS, the Town of Frankfort Jurisdictional Annex and the Plan were prepared in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, the Town of Frankfort is a local unit of government that afforded its citizens an opportunity to comment and provide input in the Plan and the actions in the Plan by posting on its web site a link to the draft plan and annex during the public comment period and agreed to consider all public input; and

WHEREAS, the Town Board has reviewed the Plan and Jurisdictional Annex and affirms that both will be updated no less than every five years;

NOW, THEREFORE, BE IT RESOLVED by the Town Board that the Town of Frankfort adopts the 2017 Herkimer County Multi-Jurisdictional Hazard Mitigation Plan and Town of Frankfort Jurisdictional Annex as this community's Natural Hazard Mitigation Plan, and resolves to execute the actions in the Plan and the Annex.

ADOPTED this xxth day of xxx, 2017 (to be updated) at the meeting of the Town Board.

_____

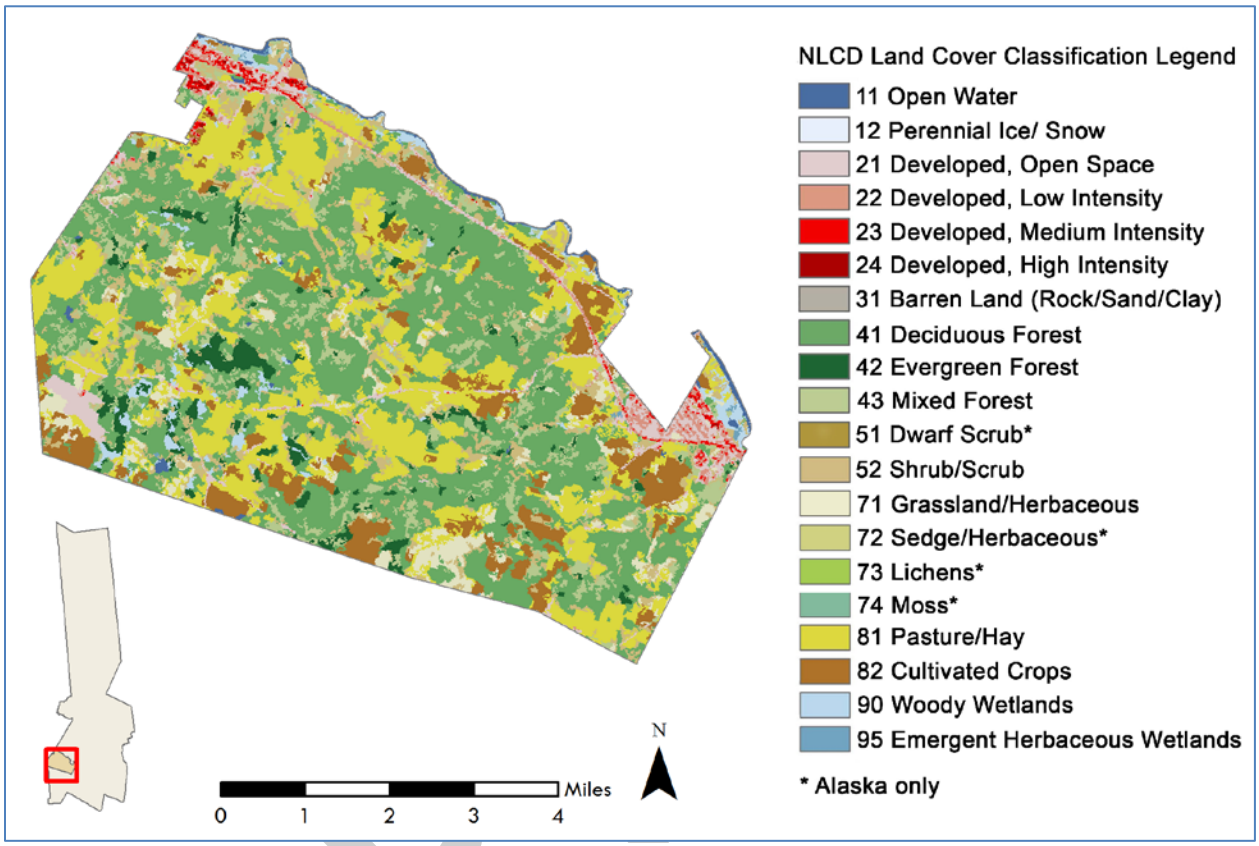
(Joseph P. Kinney, Supervisor)

_____

(Gina Bellino, Town Clerk)

Attachment 7-G: Town of Frankfort Land Use Maps

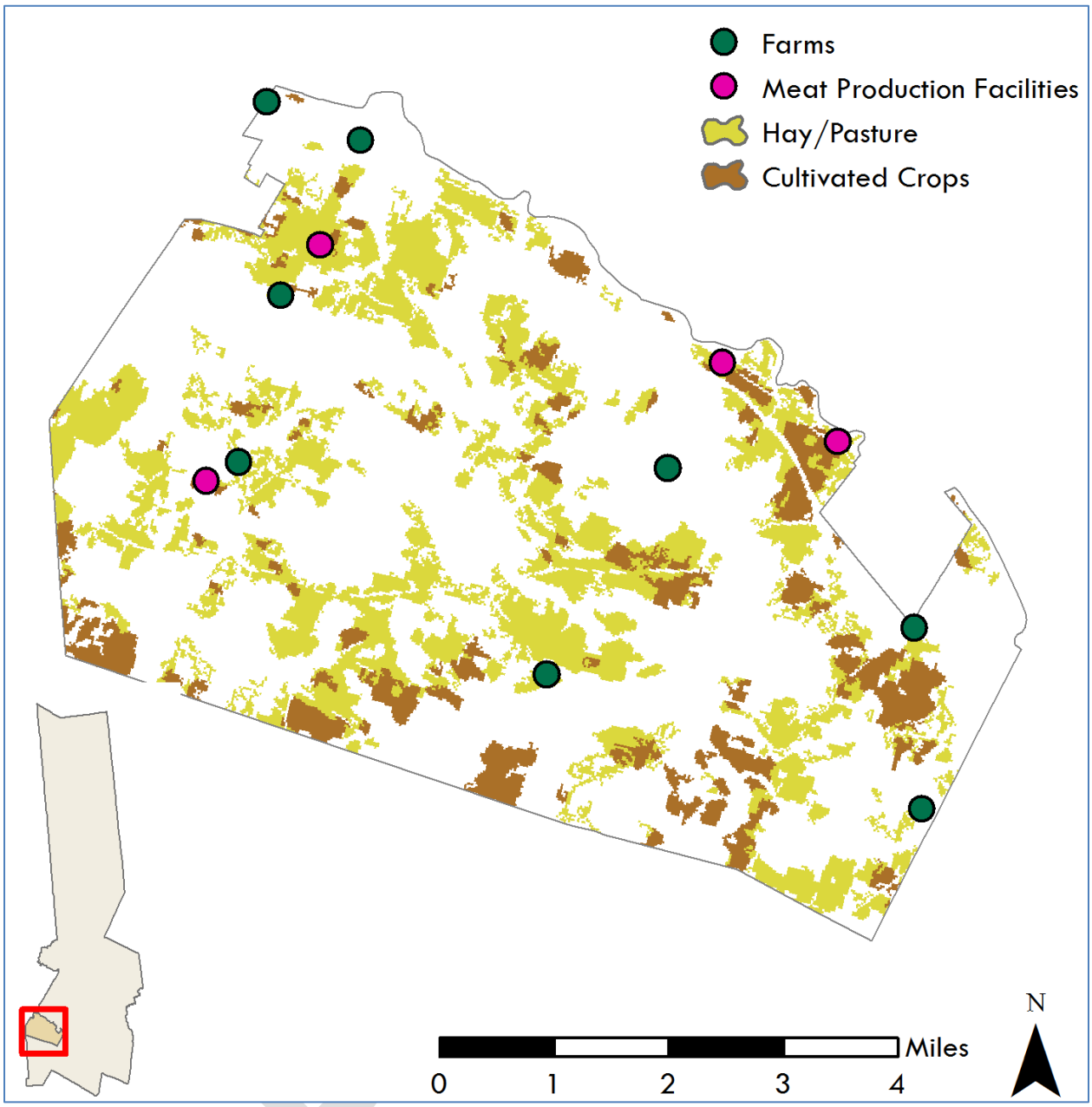
Land Cover



Source: *National Land Cover Database, Multi-Resolution Land Characteristics (MRLC) Consortium, https://www.mrlc.gov/nlcd2011.php*

Land cover reflects the town's economic base as being largely agricultural. This map shows large sections of land used for pasture and crop cultivation. Residential development is open space and of relatively low intensity overall.

Agricultural Land Use



Source: *National Land Cover Database and Homeland Security Infrastructure Program (HSIP).*

The town's agricultural industry includes crop farming, raising of livestock, and dairy farming. The previous map suggests that land not used for agricultural or residential purposes is forested.

Attachment 7-H: Community Development Trends

Frankfort 5S South Business Park

The Frankfort 5S South Business Park is a designated "Build Now-NY Shovel Ready" site. Water and sewer infrastructure installation is complete. This site, commonly referred to as the "Pumpkin Patch," is Herkimer County's newest industrial park. Nearly 200-acres, extremely level and HCIDA-owned, this site is ideally located alongside NYS Route 5S in the Town of Frankfort. Within five minutes from the NYS Thruway via limited-access highway, it is ideal for large "big-box" warehouse and distribution use; or small-to-medium sized, light industrial projects. Note: Low cost municipal power supplied by the Village of Frankfort.

West Frankfort Industrial Park

Located just east of the City of Utica, in the suburban Town of Frankfort, the WFIP is fully-serviced by municipal sewer and water, and natural gas and electric service from National Grid. Highway access to the park is excellent with the NYS Thruway (I-90) only four miles away. Rail service is available in nearby Utica.

Frankfort 5s North Business Park

Located in the Village of Frankfort, this 36-acre, fully-serviced business park offers some of lowest cost electrical service available in the country. It is located immediately adjacent to NYS Route 5S, which is a limited access, four-lane highway, less than five minutes from the NYS Thruway (I-90).

Source: *Herkimer County Industrial Development Authority*

Tractor Supply Plowing into Frankfort with Hundreds of Jobs in Tow

By Cara Thomas
April 19, 2017

FRANKFORT, N.Y. -- On the heels of several large development projects in Oneida County the last few years, Herkimer County was waiting for their time to come.

Earlier this month, local leaders announced Tractor Supply was showing interest in building a new distribution center in the Town of Frankfort. The proposed facility would sit on about 140 acres of land within the town's 5S South Business Park. The initial building is estimated to be more than 930,000 square feet, with an additional 300,000 square feet added at a later date.

"They promise us it will be a very beautiful building, very aesthetically pleasing. They will hire 350 employees and we are so excited about having them come," said Stephen Smith, director of the Herkimer County Industrial Development Agency.

Local leaders say it's not just the future employees who will reap the benefits of this new operation. "Tractor Supply is going to come in and they're going to come in and create some nice jobs so other employers here in this area are going to have to take interest in that and do the same thing for their employees," said John Scarano, of the Herkimer County Chamber of Commerce.

Developers hope to break ground no later than July, but local officials say there are still a few more t's to cross before that can happen.

"They still have to have all their permits and approvals. We have to go through the legal process through the Town of Frankfort and there's some things on our end too, as far as updating the infrastructure in the park," said Smith.

The Town of Frankfort is holding a public hearing on the project on April 27 at 7 p.m. at their town offices.

On May 3, the town's Planning Board will have another public hearing to discuss the rezoning of that property.

Source: http://www.twcnews.com/nys/central-ny/news/2017/04/19/tractor-supply-to-create-hundreds-of-jobs-in-herkimer-county.html