

9.1 CAYUGA COUNTY

This section presents the jurisdictional annex for Cayuga County.

A.) HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact	Alternate Point of Contact
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B.) PROFILE

Population

According to the 2010 U.S. Census, the estimated Cayuga County population was 80,026. Cayuga County is one of the 62 counties in New York State and is comprised of one city, 23 towns, and nine villages.

Location

Cayuga County is bordered to the North by Lake Ontario, to the Northeast by Oswego County, to the East by Onondaga County, to the southeast by Cortland County, to the South by Tompkins County, and to the West by Seneca and Wayne Counties. Cayuga County is located in the central part of the state, in the Finger Lakes region. Waterbodies in and around Cayuga County are its most defining characteristics, with Owasco Lake in the center of the County, Cayuga Lake forming part of the Western boundary of the County, Lake Ontario on the northern border, and Skaneateles Lake and Cross Lake forming part of the Eastern border. The New York State Barge Canal and the Seneca River cross Cayuga County North of the New York State Thruway, which also bisects Cayuga County North and South.

Cayuga County is made up of 33 municipalities (cities, towns, and villages) and encompasses an area of approximately 734 square miles (Cayuga County, 2010). The major commercial and industrial areas of



Cayuga County are located in the City of Auburn and the Towns of Mentz, Sennett, Brutus and Aurelius, all centrally located in Cayuga County along the major transportation routes.

Brief History

The first existence of Cayuga County was a large portion of land formed in 1799 by the splitting of Onondaga County. This land area of Cayuga County at that time, however, was much larger than the present Cayuga County, including present-day Seneca and Tompkins Counties. Five years later in 1804, Cayuga County split to form Seneca County, and in 1817 it released another portion of land for the creation of Tompkins County, leaving the remainder of Cayuga County as it stands today (Corcoran, Date Unknown).

Governing Body Format

Cayuga County is a full service county government with 35 operating departments including a full service Health Department. Cayuga County is governed by a County Legislature consisting of 15 elected Legislators who represent equally divided districts and who select a County Chairperson annually. The County also has a County Administrator who acts on the behalf of the Legislature. Cayuga County operates a Nursing Home, Soil and Water Conservation District, Community College, Water and Sewer Authority, and a County Jail.

Cayuga County is made up of one city, 23 towns, and nine villages. Home rule is strong in New York State and thus, the City and each town and village have its own governing body.

The City of Auburn has an elected mayor serving as Chief Executive and administrative head of the City with a City Council serving as the legislature. The City of Auburn also has a manager appointed by the City Council to direct and supervise the activities of the City; manage municipal resources; present plans, reports and analysis to the Council; and maintain the financial affairs of the City (Auburn, 2013).

In towns, the Town Board serves as the legislative branch. It is made up of an elected Supervisor and a specific number of elected town board members. A town can contain one or more villages. In villages, the Board of Trustees is the legislature and it is composed of an elected mayor and trustees. The Mayor is the Chief Executive of the Village.

Along with town and village roads, any public water and sewer systems, with the exception of the Cayuga County Water and Sewer Authority and the Dudley private water system, are operated by the local municipality, though they may cooperate with County departments. Each municipality has charge over its own planning and zoning and uses Cayuga County personnel as a resource (Cayuga County, 2010).

Growth/Development Trends

The following table summarizes major residential/commercial development and major infrastructure development that are identified for the next five (5) years in the municipality. Refer to the map in section I.) of this annex which illustrates the hazard areas along with the location of potential new development.

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New Development/Potential Development in Municipality						
Municipality	Property Name	Type (Residential, Municipal or Commercial)	Number of Structures	Address	Potential Hazard	Description/Status
Auburn (C)	State Dam (2013)	Municipal	1	42.919630, -76.548017	karst	Renovation
Auburn (C)	Mill St. Hydro (2013-14)	Municipal	1	42.928753,-76.559261	karst, flood	Renovation
Auburn (C)	Downtown Theater	Commercial	1	1 State St	karst	
Auburn (C)	N. Division St. Bridge (2015)	Municipal	1	42.932076,-76.584499	karst	
Auburn (C)	Public Safety Bldg.	Municipal	2	Market Street	karst	
Auburn (C)	Security for critical infrastructure	Municipal			karst	
Auburn (C)	Calamar – Auburn Woods – (2013)	Residential	110 units	42.943858, -76.554968	karst	Senior Housing
Auburn (C)	CCC Dorms – (2013)	Residential	300-400 students	42.946434, -76.541966	karst	Currently on-hold
Auburn (C)	Vitale Subdivision – (2013)	Residential	52 units total	42.946151, -76.538705	karst	
Auburn (C)	Mack Studios (2013),	Commercial		42.944486, -76.592799	karst	Build a warehouse/ manufacturing facility
Auburn (C)	Currier Plastics	Commercial		42.924566, -76.588250	karst	Build a production and storage facility
Auburn (C)	Hammond & Irving	Commercial		42.949952, -76.565698	karst	
Auburn (C)	NUCOR	Commercial		42.949559, -76.572672	karst	
Auburn (C)	East Hill/John St Residential Rehab Project	Residential	20+	42.934150, -76.561300	karst	Rehab project
Auburn (C)	Cottage Cove	Residential	36 units	30 Cottage St., Auburn	karst	Planned senior housing project
Auburn (C)	Car Dealership on Grant Avenue	Commercial			karst	
Auburn (C)	Franklin St. Water Line (2013)	Municipal		42.942617,-76.542159	karst	
Auburn (C)	York Street Reconstruction Project (2013)	Municipal		42.949151,-76.573831	karst; NEHRP soil E	
Aurelius(T)/Cayuga (V)	Waste water treatment plant	Municipal		6819 Route 90 North, Cayuga		
Aurelius (T)	Cayuga Ingredients	Commercial		Off Eagle Drive in		Milk processing plant



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New Development/Potential Development in Municipality						
Municipality	Property Name	Type (Residential, Municipal or Commercial)	Number of Structures	Address	Potential Hazard	Description/Status
				Cayuga County's IDA park in Aurelius		
Brutus (T)	Water District # 8	Municipal	85 units		Flood	Built in 2013
Brutus (T)	Water District #1-9	Municipal			WD#7 – flood and NEHRP D and E WD#3: NEHRP Soil D WD#2, 9: Flood	Planning stages
Fair Haven (V)	Lake Effects Vineyard	Commercial	10	West Bay Road	No	Winery under construction
Fair Haven (V)	Cidery	Commercial	1	Richmond Street	No	Waiting License
Fleming (T)	West Lake Road	Both	N/A	Various	Steep Slope	
Fleming (T)	Water District	Municipal			Pipe Failure; flood	Upgrade
Fleming (T)	Sewer District	Municipal			Pipe Failure; flood	Upgrade
Genoa (T)	Genoa Grain LLC	Commercial	2	Rte. 34 Genoa		
Genoa (T)	Ethanol Plant	Commercial	1	Genoa/Venice Town line		
Sennett (T)	Quincy Hill Phase 2	Residential	36	U.S. Route 20		
Springport (T)	Cayuga Shores	Residential	13	State Route 90, Cayuga, NY 13054	Shoreline	Sewer District
Springport (T)	Lakeview Seniors	Residential	50 possible	Trusdale Rd, Union Springs, NY 13160	karst	Sewer District
Summerhill (T)	Estimated	Residential	5	Unknown		
Weedsport (V)	Village Heights	Residential	33	Rosewood Circle Dorothy Court		33 vacant lots to be sold
Weedsport (V)	Fire house/ Municipal and Court/ Police Compound	Public	1	South St		In planning stage

Note: Please refer to Section I for new development location information. Potential hazards are based on the potential new development with location information provided and if found.



C.) NATURAL HAZARD EVENT HISTORY

Cayuga County has a history of natural hazard events as detailed in Volume I, Section 5 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events affecting Cayuga County and its municipalities. Below is presented a summary of historical events to indicate the range and impact of natural hazard events in Cayuga County. Please refer to the Previous Occurrences and Losses section of the appropriate hazard profiles in Section 5.4 of this Plan in Section 5.4, Volume 1.

Type of Event	FEMA Disaster # (if applicable)	County Designated?	Date	Approximate Damage Assessment
Flood in Moravia			June 1, 1905	Severely damaged Moravia business district
Steamship Frontenac Fire South of Union Springs			June 27, 1907	8 deaths
Severe Flooding along Cayuga Lake			April 1916	N/A
Spanish Influenza			1918 — 1919	nearly 100 deaths in Cayuga County
Riots at Auburn Prison			1929	11 deaths, 3 firefighters injured
Hislops fire in Auburn			December 1931	Destroyed a block of downtown, 1 firefighter killed
Floods in Moravia & Locke			July 1, 1935	Floods in Moravia & Locke
Gasoline leak & explosion in Auburn			March 30, 1960	Killed 5 including 3 firefighters
Gasoline spill in Auburn			September 1960	17,000 gallon gasoline spill at Drake Oil
Gasoline spill			May 1966	8,500 gallon gasoline spill at Sinclair Bulk Terminal in Auburn
Dutch Elm Disease			1960's	Kills thousands of trees in City and Villages
Tropical Storm Agnes	DR-338	Y – IA, PA	June 20-25, 1972	Auburn's Mill Street dam washed out, Owasco Lake dam weakened; Cayuga Lake rises 1.25 feet higher than 1916 level. Approximately \$3.7 million in residential, commercial and public property damage and \$4.46 million in crop damage.
High Winds/Wave Action/Flooding	DR-367	Yes - IA, PA	March 17-19, 1973	Caused approximately \$200,000 in property damage in Cayuga County.
Gasoline tanker crash			April 10, 1975	Resulting fire destroys 11 buildings in Locke
Hurricane Eloise /Severe Storm, Heavy Rain,	DR-487	Yes - IA, PA	September 25-27, 1975	Caused severe damage in Moravia and Locke. Caused approximately \$6.5 million in



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Type of Event	FEMA Disaster # (if applicable)	County Designated?	Date	Approximate Damage Assessment
Landslide/Flooding				property damage in Cayuga County.
10,000 gallon gasoline spill at Agway in Auburn			September 11, 1977	N/A
Ice Jam in Port Byron			February 15, 1979	Severe ice jamming required heavy equipment and dynamite to clear the ice. The Village's schools were closed for at least three days. Ice jams in the Outlet resulted in flooding and evacuation of several homes. Cayuga County declared the area as a disaster site.
Flooding in Moravia and Locke			October 26-28, 1981	"Worse than Agnes or Eloise." Town of Locke and Village of Moravia had significant damage. Over \$2 million in damage in Cayuga County.
Radiation incident at Austeel (dental scrap)			1980's	N/A
Blizzard followed by lake and river flooding in April	EM-3107	Yes - PA	April 13, 1993	Blizzard followed by lake and river flooding in April. Approximately \$1.4 million in damage in Cayuga County.
Dunn & McCarthy fire in Auburn.			December 19, 1993	Empty shoe factory caught fire, which spread to Rude Utility and three other buildings. Six businesses burned. Blaze was close to Auburn Correctional Facility. Tanker truck in accident on way to fire.
Ice jam flooding in Port Byron			January 19, 1994	A freeze-up ice jam was reported in the Village of Port Byron and existed from the abandoned railroad grade (downstream from the Village) up through the entire Village limits. The ice made contact with the underside of two bridges in the jammed area and the sewage treatment plant and the access road became impassable. About 30 to 40 homes in the Green Street area were vulnerable and 30 homes were evacuated. Some homes had basement flooding and one residence had extensive basement flooding due to seepage. Local officials mobilized a clam shell crane to break up the ice jam and the City of Auburn reduced the flow in the Owasco Outlet.



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Type of Event	FEMA Disaster # (if applicable)	County Designated?	Date	Approximate Damage Assessment
County-wide flooding	DR-1095	Yes - IA, PA	January 19-20, 1996	1 death (MVA). Approximately \$1.4 million in property damage in Cayuga County.
Street flooding in Moravia and Locke	DR-1148	No	November 8-9, 1996	Cayuga County had approximately \$150 K in property damage.
Tornado(s) in Niles and Moravia	DR-1222 DR-1233	No	May 31, 1998	N/A
Labor Day storm.	DR-1244	Yes - IA, PA	September 7, 1998	Property damage estimate close to \$25 million with \$1 million in crop damages.
USDA declared Drought (t40329).			August 1999	Genoa issues Emergency water restrictions
Road flooding in King Ferry		No	June 2000	(Fed. Declared disaster elsewhere).
Flood			May 2002	Road flooding in Union Springs and Meridian.
Landslide along Seneca River near Cross Lake in Town of Cato.			February 2003	1000 feet of Seneca River bank failed and slid into the river. Two homes were condemned and eight to twelve property owners lost lawns, septic systems, boat houses, sheds, docks and/or shoreline.
Ice storm	DR-1467	Yes - IA, PA	April 3 - 5, 2003	3 deaths in Cayuga County. Approximately \$28.5 million in property damages and over \$955,000 in crop damages.
NE blackout.	EM-3186	Yes - PA	August 23, 2003	N/A
Snow emergency declared	EM-3195	Yes - PA	January 28 - 31, 2004	Approximately \$450,000 in property damage in Cayuga County.
Rain/Flooding	DR-1589	Yes - PA	April 2-9, 2005	Flooding triggered by snow melt and rain. Approximately \$800,000 in property damage in Cayuga County. Mill Street Bridge in Port Byron washed away.
Severe Storms and Flooding	DR 1670	No	November 16-17, 2006	Approximately \$10,000 in damages in Cayuga County.
April Nor'easter	DR 1692	No	April 14-18, 2007	Approximately \$8,000 in damages in Cayuga County.
Buckeye Pipeline	N/A	No	September 20, 2011	Pipeline rupture that spilled thousands of gallons of gasoline into farm field and stream.



D.) NATURAL HAZARD RISK/VULNERABILITY RISK RANKING

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c}	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking ^b
Flood	1% Annual Chance: \$24,649,025 0.2% Annual Chance: \$35,636,482	Frequent	33	High
Severe Storm	100-Year MRP: \$0 500-Year MRP: \$40,720 Annualized Loss: \$4,617	Frequent	18	Medium
Severe Winter Storm	1% of GBS: \$35,077,472 5% of GBS: \$175,387,362	Frequent	48	High
Transportation	Not available	Frequent	18	Medium
Ground Failure	Karst Exposure \$3,993,840,146 Moderate Incidence \$252,869,837 Moderate Susceptibility \$366,714,619	Rare	13	Low

- a. Building damage ratio estimates based on FEMA 386-2 (August 2001)
- b. High = Total hazard priority risk ranking score of 30 and above
Medium = Total hazard priority risk ranking of 15-29
Low = Total hazard risk ranking below 15
- c. The valuation of general building stock and loss estimates was based on custom inventory for Cayuga County.
- d. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
- e. Loss estimates for the flood hazard represents both structure and contents.



E.) CAPABILITY ASSESSMENT

This section identifies the following capabilities of the local jurisdiction:

- Legal and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community resiliency
- Community political capability
- Community classification.

Cayuga County indicates that it has moderate planning, regulatory, administrative, technical, fiscal, community resiliency, and community political capability; with a moderately willing political capability to enact policies or programs to reduce hazard vulnerabilities in the community.

E.1) Legal and Regulatory Capability

Regulatory Tools (Codes, Ordinances., Plans)	Do you have this? (Y or N)	Enforcement Authority	Code Citation (Section, Paragraph, Page Number, Date of adoption)
1) Building Code		Local	
2) Zoning Ordinance		Local	
3) Subdivision Ordinance		Local	
4) NFIP Flood Damage Prevention Ordinance		Local	
4a) Cumulative Substantial Damages		Local	
4b) Freeboard		Local	
5) Comprehensive Plan / Master Plan/ General Plan	Y	Local	Cayuga County Master Plan, 1969
6) Floodplain Management / Basin Plan		Local or Watershed	
7) Stormwater Management Plan/Ordinance		Local	
8) Growth Management		Local	
9) Capital Improvements Plan	N	Local or County	
10) Site Plan Review Requirements		Local	
11) Open Space Plan	Y	Local or County or State	NYSDEC Open Space Conservation Plan, 2009
12) Stream Corridor Management Plan	Y	Local or Watershed	Dutch Hollow Brook Stream bank Management Plan, Veness Brook Stream bank Management Plan and Sucker Brook Stream bank Management Plan, 2003
13) Watershed Management or Protection Plan	Y	Local or Watershed	Cayuga Lake Watershed Restoration and Protection Plan (2001); Owasco Lake Watershed Management Plan (2001); Duck Lake Watershed Management Plan (2005); Lake Como Watershed Management Plan (2007); Skaneateles Lake Watershed Management Plan (1998)
14) Economic Development Plan	Y	County	Cayuga County, New York Economic Development Strategic Plan, 2011
15) Comprehensive Emergency Management Plan	Y	Local or County	Cayuga County Comprehensive Emergency Management Plan, September 25, 2012
16) Emergency Response Plan		Local or County	
17) Post Disaster Recovery Plan		Local	

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Regulatory Tools (Codes, Ordinances., Plans)	Do you have this? (Y or N)	Enforcement Authority	Code Citation (Section, Paragraph, Page Number, Date of adoption)
18) Post Disaster Recovery Ordinance		Local	
19) Real Estate Disclosure Requirement		State	State Requirement
20) Other [Special Purpose Ordinances (i.e., critical or sensitive areas)] Cayuga County Land Use Plan	Y	County	December 3, 1997

E.2) Administrative and Technical Capability

Staff/ Personnel Resources	Available (Y or N)	Department/ Agency/ Position
1) Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	Planning Department
2) Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Planning Department, Buildings and Grounds, Highway Department, SWCD
3) Planners or engineers with an understanding of natural hazards	Y	Planning Department
4) NFIP Floodplain Administrator	N	This is at Town/Village level.
5) Surveyor(s)	Y	Highway Department, SWCD
6) Personnel skilled or trained in "GIS" applications	Y	Planning Department, Real Properties
7) Scientist familiar with natural hazards	Y	Planning Department
8) Emergency Manager	Y	Emergency Management Office
9) Grant Writer(s)	Y	Planning Department, SWCD, Highway, Emergency Management Office, Sheriff's Office, Health Department
10) Staff with expertise or training in benefit/cost analysis	Y	Planning Department, Emergency Management Office

E.3) Fiscal Capability

Financial Resources	Accessible or Eligible to use (Yes/No/Don't know)
1) Community Development Block Grants (CDBG)	Y
2) Capital Improvements Project Funding	Y
3) Authority to Levy Taxes for specific purposes	Y
4) User fees for water, sewer, gas or electric service	Y
5) Impact Fees for homebuyers or developers of new development/homes	?
6) Incur debt through general obligation bonds	Y
7) Incur debt through special tax bonds	Y
8) Incur debt through private activity bonds	Y
9) Withhold public expenditures in hazard-prone areas	Y
10) State mitigation grant programs (e.g. NYSDEC, NYCDEP)	Y
11) Other	

E.4) Community Classifications

Program	Classification	Date Classified
Community Rating System (CRS)		
Building Code Effectiveness Grading Schedule (BCEGS)		
Public Protection Classification (PPC)		
Storm Ready	Y	2010
Firewise		

N/A = Not applicable. NP = Not participating. - = Unavailable.

The classifications listed above relate to the community’s effectiveness in providing services that may impact it’s vulnerability to the natural hazards identified. These classifications can be viewed as a gauge of the community’s capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class one (1) being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is not within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO’s Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

F. MITIGATION STRATEGY

F.1) Past Mitigation Actions/Status

Disaster	Lead	Project	Funding
Jan. 1996	Genoa	Weeks Road added third culvert	FEMA, damaged site upgrade
Jan. 1996	Genoa FD	Flood proofed basement	FEMA, damaged site upgrade
Jan. 1996	Summerhill	Filmore Gulf Road, piped 600 feet	FEMA, damaged site upgrade
Jan. 1996	Genoa	Berm to protect water supply	FEMA, hazard mitigation grant
Jan. 1996	SWCD	Removed railroad pier in Port Byron	FEMA, hazard mitigation grant
Jan. 1996	SWCD	Locke and Moravia riprap plus drainage improvements	FEMA, hazard mitigation grant
Jan. 1996	Moravia (T)	Stormwater pond #2 (archeology)	FEMA, hazard mitigation grant
Jan. 1996	Moravia (V)	Stormwater pond #1	Village
Sept. 1998	County	Green Street Bridge in Port Byron	HUD DRI grant
Sept. 1998	County	Moravia (T) stormwater pond #2	HUD DRI grant
Apr. 2003	Mentz	Sperry Road riprap	FEMA, hazard mitigation grant
Apr. 2003	Auburn	Washington St. channel improvements	FEMA, hazard mitigation grant
Apr. 2005	Mentz	Mill Street Bridge in Port Byron	FEMA, damage site upgrade
N/A	NYS	Replaced bridges on pilings with freespans over Owasco River (2)	NYS Thruway Authority, 2002-2004
N/A	NYS	County-wide FIRM map modernization	NYS, FEMA and County, 2007
N/A	County	911 and Emergency Communication System Upgrade	County 2010-2013

F.2) Hazard Vulnerabilities Identified

Cayuga County indicates that its hazard vulnerabilities are aligned with many of those listed under the town and village section, including threats to its critical facilities.

Generally, Cayuga County's road system and other infrastructure are vulnerable to damage and disruption from flooding, severe storms and winter storm events, as well as possible shale bank collapse or muck soil subsidence. Also, hazardous material transportation accidents have the potential to endanger the health and welfare of County residents including disrupting water supplies and transportation routes.

In addition to these general vulnerabilities, the Cayuga County Soil and Water Conservation District (SWCD) has identified the following flooding vulnerabilities for Cayuga County, and has proposed hazard mitigation initiatives corresponding to these vulnerabilities, as shown in Section F.3 of this annex:



- Cayuga Lake is a major Finger Lake located partially within Cayuga County. Land use in the area includes residential areas and agriculture. Erosion on the lakeshore has been of concern in the past. In the event of a major storm, water levels could rise above normal stages and threaten lakeshore properties and homes. Recreation areas, steep slopes and certain beaches on parts of the lake may require stabilization. Areas along the lakeshore are also prone to flooding and damage resulting from ice jams where tributaries enter the lake. Unnamed and named watercourses, including Paines Creek, Great Gully Creek and others, contribute a large volume of sediment to the lake as a result of bank erosion. The Cayuga County SWCD has worked on many such projects on the lake in the past.
- Cold Springs Brook, a tributary that flows to the Seneca River, has been identified as having flooding issues. After heavy rainfall events, the swell of the stream erodes the banks and causes significant damage. As the banks deteriorate, cropland and other property is lost. The predominant land use adjacent to the watercourse is agriculture and residential. Stream bank erosion is a primary concern, particularly during heavy rain events or during the spring melt. Portions of the stream are also prone to ice jams. These cause flooding and an increase in erosion due to bed and bank scour, as well as having the potential for causing significant property damage. Clearing and snagging of debris jams and removal of excess sediment is needed to protect a 60 bed adult care facility, the Village of Weedsport's wastewater treatment plant and the CSX/Amtrak railroad culvert, berm and track from erosion and flooding.
- Crane Brook, a tributary that flows to the Seneca River, has been identified as having erosion issues. After heavy rainfall events, the swell of the stream erodes the banks and causes significant damage. As the banks deteriorate, cropland and other property is lost. The predominant land use adjacent to the watercourse is agriculture and residential. Stream bank erosion is a primary concern, particularly during heavy rain events or during the spring melt.
- Dutch Hollow Brook has been evaluated for flooding and erosion concerns. Stream bank erosion, woody debris and ice jams have been identified as primary concerns along the stretch.
- Fall Creek, a watercourse that flows to Cayuga Lake, has steeply sloped banks and runs through rural and agricultural areas. After heavy rainfall events, the swell of the stream erodes the banks and causes significant damage. As the banks deteriorate, land is lost and property along the creek is endangered. Stream bank erosion is a primary concern, particularly during heavy rain events or during the spring melt.
- Great Gully Creek, a watercourse that flows to Cayuga Lake, has steeply sloped banks and runs through residential and agricultural areas. After heavy rainfall events, the swell of the stream erodes the banks and causes significant damage. As the banks deteriorate, cropland is lost and property along the creek is endangered. Stream bank erosion is a primary concern, particularly during heavy rain events or during the spring melt.
- Moon Beach, on the Southeastern shore of Lake Ontario, is a high, very steep slope that is frequently and severely impacted by wave, ice, and wind action. The bank is very unstable and erosion is a major concern in the area. Homes on Moon Beach are in imminent danger from the top of slope collapsing beneath them. In at least one case, a house has been relocated to avoid this scenario.
- The Owasco Inlet has been evaluated for flooding and erosion concerns. Stream bank erosion, channel deposition and woody debris have been identified as primary concerns along the stretch.
- Owasco Lake is a major Finger Lake located entirely within Cayuga County. It supplies drinking water to the City of Auburn and many towns within Cayuga County. Lake levels are controlled by the City of Auburn using the United States Corps of Engineers rule

curve, however; in the event of a major storm, water levels could rise above normal stages and threaten lakeshore properties and homes. This could also contaminate the drinking water supply, as pollutants could overwhelm the water filtration plant's capabilities. Land use in the area includes residential areas and agriculture. Recreation areas, steep slopes and certain beaches on parts of the lake may require stabilization. The Cayuga County SWCD has worked on many such projects on the lake in the past, as well as dredging in areas that have received heavy siltation.

- The Owasco Outlet has been evaluated for flooding and erosion concerns. Stream bank erosion and woody debris have been identified as primary concerns along the stretch.
- Paines Creek, a watercourse that flows to Cayuga Lake, has steeply sloped banks and runs through residential and agricultural areas. After heavy rainfall events, the swell of the stream erodes the banks and causes significant damage. Significant sediment deposits have been noted in Cayuga Lake from this stream. As the banks deteriorate, cropland is lost and property along the creek is endangered. Stream bank erosion is a primary concern, particularly during heavy rain events or during the spring melt.
- Putnam Brook and North Brook, tributaries that flow to the Seneca River, have been identified as having erosion issues. After heavy rainfall events, the swell of the streams erode the banks and cause significant damage. As the banks deteriorate, cropland and other property is lost. The predominant land use adjacent to the watercourses is agriculture and residential. Stream bank erosion is a primary concern, particularly during heavy rain events or during the spring melt.
- Big Salmon Creek, Little Salmon Creek and their tributaries have been evaluated for flooding and erosion concerns. Stream bank erosion and woody debris have been identified as primary concerns along the stretch.
- The Seneca River, the Barge Canal and Cayuga/ Seneca Canal run across Cayuga County and impact six towns. Seasonal flooding is common on the River, and has caused significant property damage over the years. Large portions of the riverbank have sloughed off into the river during certain flood events. Debris and sediment deposits also impede the flow and cause undercutting of the banks.
- Skaneateles Lake is a major Finger Lake located partially within Cayuga County. Skaneateles Lake is the primary source of water for the City of Syracuse. Land use in the area includes residential areas and agriculture. Erosion on the Lakeshore is of concern, as the banks of the lake in Cayuga County are generally high and very steep. In the event of a major storm, water levels could rise above normal stages and damage the shoreline. Recreation areas, steep slopes and certain beaches on parts of the lake may require stabilization.
- Sterling Creek, Sterling Valley Creek and their tributaries have been evaluated for flooding and erosion concerns. Stream bank erosion, excessive vegetation, channel deposition and woody debris have been identified as primary concerns in these streams.
- Sucker Brook, a flashy watercourse that flows to Owasco Lake, is prone to flooding and erosion concerns. After heavy rainfall events, the swell of the stream erodes the banks and causes significant damage. As the banks deteriorate, cropland is lost the predominant land use adjacent to the watercourse is agriculture. The stream also passes through a golf course. Stream bank erosion is a primary concern.
- Veness Brook, a flashy watercourse that flows to Owasco Lake, is prone to flooding and erosion concerns. After heavy rainfall events, the swell of the stream erodes the banks and causes significant damage. As the banks deteriorate, cropland is lost. The predominant land use adjacent to the watercourse is agriculture. Residential development is also steadily expanding in the area. Stream bank erosion is a primary concern, particularly during heavy rain events or during the spring melt.

- The Village of Moravia and the Hamlet of Locke are low-lying population centers with several streams and watercourses flowing through them, coming down from steep slopes above. Historically, the village and hamlet have experienced flooding from snowmelt and storm events. In some cases, road culverts have become plugged with debris from upstream. The village and hamlet storm sewers are not adequate to handle excessive amounts of stormwater. Erosion from stream banks often leads to silt and shale deposits in the flat areas in the village and hamlet, reducing stream channels even further. Debris carried downstream into the village and hamlet also creates logjams and flooding. The Cayuga County SWCD has worked with the village and hamlet in the past to address some of these issues, however, lack of funds has limited the projects.
- The Village of Port Byron has the Owasco Outlet running through it, which has been known to cause flooding from ice jams and debris carried in the stream. Bank erosion contributes to the issue, by depositing sediments in the stream. The Cayuga County SWCD has worked with the Village in the past to address some of these issues; however, lack of funds has limited the projects.
- Yawgers Creek, a major tributary that flows to Cayuga Lake, has been identified as having erosion issues. After heavy rainfall events, the swell of the stream erodes the banks and causes significant damage. As the banks deteriorate, cropland is lost the predominant land use adjacent to the watercourse is agriculture, although there are homes along the stream that have been threatened by stream bank erosion in the past. Stream bank erosion is a primary concern, particularly during heavy rain events or during the spring melt.

Additional:

- Many of these flooding situations can be exacerbated by debris accumulation and/or beaver activity. Comprehensive plans are needed to deal with debris and beaver issues.
- Many areas of Cayuga County and town road systems are vulnerable to shale bank failure, muck/organic soil subsidence and karst/sinkhole development.

NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)	# Policies in 500-year Boundary (3)	# Policies Outside the 500-year Flood Hazard (3)
Cayuga County	497	171	\$919,060	2	0	291	22	184

Source:

- (1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, in June 2012 using the “Comm_Name”. These statistics are current as of June, 2012. Please note the total number of repetitive loss properties includes the severe repetitive loss properties.
- (2) Total building and content losses from the claims file provided by FEMA Region 2 (current as of June, 2012).
- (3) The policy locations used are based on the latitude and longitude provided by FEMA Region 2.

It is estimated that in Cayuga County, 3,252 residents live within the 1% annual chance flood area (NFIP Special Flood Hazard Area). Of the municipality's total land area, 11% is located within the 1% annual chance flood area. \$217,986,036 (3.8%) of the municipality's general building stock replacement cost value (structure and contents) is located within the 1% annual chance flood area. There are 497 NFIP policies in the community. While there are 7027 parcels located within the 1% annual chance flood area, there are only 291 policies issued to property owners in the 1% annual chance flood area. FEMA has identified 2 Repetitive Loss (RL), including 0 Severe Repetitive Loss (SRL), properties in the entire County. The two repetitive loss properties are on Cayuga Lake (Honoco Road, Ledyard) and Cross Lake (Firelane 14, Cato).

HAZUS-MH estimates that for a 1% annual chance flood, \$24,649,025 (0.4%) of the municipality's general building stock replacement cost value (structure and contents) will be damaged and 9,512 tons of debris could be generated. HAZUS-MH estimates the following damage and loss of use to critical facilities in the community as a result of a 1% annual chance flood event:

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Critical Facilities Located in the 1-Percent and 0.2-Percent Annual Chance Flood Boundaries and Estimated Potential Damage

Name	Municipality	Type	Exposure		Potential Loss from 1% Flood Event			Potential Loss from 0.2% Flood Event		
			1% Zone	0.2% Zone	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽¹⁾	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽¹⁾
Substation (Clark St)	Auburn (C)	Electric Substation	X							
North Division Street Dam	Auburn (C)	Electric Power	X							
Mill Street Dam	Auburn (C)	Electric Power	X							
Penske Truck Leasing Co., LP	Auburn (C)	HAZMAT	X							
Xylem Inc. Water Systems U.S.A., LLC	Auburn (C)	HAZMAT		X						
City of Auburn Sewerage Facility	Auburn (C)	WWTF	X							
City of Auburn CSO (17)	Auburn (C)	WWTF	X							
City of Auburn CSO (07)	Auburn (C)	WWTF		X						
Canoga St	Auburn (C)	WW Pump Station	X							
John Walsh Blvd (Walmart)	Auburn (C)	WW Pump Station	X							
Intake	Cayuga (v)	Potable Water	X							
Treatment Plant	Cayuga (V)	Potable Water		X						
Town of Brutus	Brutus (T)	Highway Department		X						
Fair Haven Senior Apartments	Fair Haven (V)	Senior	X					4.53	24.6	NA
Treatment Plant	Ledyard (T)	Potable Water	X							
Intake	Ledyard (T)	Potable Water	X							
HEWITT BROTHERS, INC.	Locke (T)	HAZMAT	X							
Village Of Meridian Fire Department #1	Meridian (V)	Fire	X							
Town Hall	Montezuma (T)	Municipal Hall	X							
Four Town First Aid Squad, Inc.	Moravia (V)	Fire		X						
Town Hall	Moravia (V)	Municipal Hall		X						
Village of Moravia	Moravia (V)	Highway Department		X						
Moravia (V)	Moravia (V)	Electric Substation	X							
Moravia Justice Center	Moravia (V)	Police	X							
Moravia Sewage Plant	Moravia (V)	WWTF	X							
Millstream Court	Moravia (V)	Senior	X		15	86.1	NA	16.43	95.3	NA



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Name	Municipality	Type	Exposure		Potential Loss from 1% Flood Event			Potential Loss from 0.2% Flood Event		
			1% Zone	0.2% Zone	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽¹⁾	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽¹⁾
Northwoods	Moravia (V)	Senior	X		15.31	89.86	NA	16.32	94.95	NA
Town of Moravia	Moravia (V)	Highway Department	X		63	78	NA	63.82	78.82	NA
Well #2,#3,#4 & Treatment Plant	Moravia (V)	Potable Water	X							
Maus Marineland	Niles (T)	Airport	X							
Owasco and Oakridge	Owasco (T)	WW Pump Station	X							
Archie St. Severe High Flow Pump	Owasco (T)	WW Pump Station	X							
Burtis Point	Owasco (T)	WW Pump		X						
Intake	Owasco (T)	Potable Water	X							
Intake	Owasco (T)	Potable Water	X							
Port Byron Fire Department	Port Byron (V)	Fire	X					10.89	35.93	480
Village Of Port Byron Village Hall	Port Byron (V)	Municipal Hall	X							
Village of Port Byron Sewage Treatment Plant	Port Byron (V)	WWTF	X							
Frontenac Harbor (previously known as Castelli's Marina Inc.)	Union Springs (V)	HAZMAT	X							
Fox Lane Apartments	Union Springs (V)	Senior	X		0.25	1.34	NA	5.35	29.02	NA
Village of Union Springs	Union Springs (V)	Highway Department	X		4.67	4.24	NA	14.5	13.18	NA
Verizon CO (NY70596)	Union Springs (V)	HAZMAT		X						
Union Springs Sewage Plant	Union Springs (V)	WWTF		X						
Weedsport Sewage Plant	Weedsport (V)	WWTF	X							
Village of Weedsport	Weedsport (V)	Department of Public Works	X							
Weedsport Evergreen Heights Assisted Living	Weedsport (V)	Assisted Living	X							

Source: HAZUS-MH 2.1

Note: C = City; NA = Not available; T = Town; V = Village

X = Facility located within the DFIRM boundary.

(1) HAZUS-MH 2.1 provides a general indication of the maximum restoration time for 100% operations. Clearly, a great deal of effort is needed to quickly restore essential facilities to full functionality; therefore this will be an indication of the maximum downtime (HAZUS-MH 2.1 User Manual).



(2) In some cases, a facility may be located in the DFIRM flood hazard boundary; however HAZUS did not calculate potential loss. This may be because the depth of flooding does not amount to any damages to the structure according to the depth damage function used in HAZUS for that facility type. The flood model does not estimate damages for HAZMAT facilities.

Please refer to the Hazard Profiles for additional vulnerability information relevant to this jurisdiction.

F.3) PROPOSED HAZARD MITIGATION INITIATIVES

Note some of the identified mitigation initiatives in Table F are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities.

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
CC-1	Conduct a flood study of the 3-4 blocks around the Cayuga County Office Building and implement green infrastructure and other changes to mitigate and prevent flooding of the basement of the County Office Building which contains the County's Emergency Operations Center.	Existing	Flooding	1-5 1-6	County with City support	High	Medium	County, grants	Short	Medium	PP
CC-2	Develop a comprehensive beaver management plan along flood prone streams and marshes in Cayuga County.	Both	Flood	1-5 1-6	County with support from municipalities and NYSDEC.	Medium	Low	Municipal, County	Short	High	NR
CC-3	Develop a debris control plan for all protected and unprotected streams in Cayuga County and work with County agencies, towns, villages and landowners to implement.	N/A	Flood	1-5 1-6	County, municipality	High	Low	County, Municipal, Grants	Short	High	NR
CC-4	Explore County road stabilization in shale and muck areas. Roads include Appletree Point, Glen Haven Road, Filmore Gulf Road, Slayton Road, Sunken Bridge Road and others.	Existing	Flood	1-5 1-6 3-4	County, with municipality support	Medium	Medium to High	County	Long Term	Medium	PP
CC-5	O'Neil Road, Howland Island	Existing	All		NYS	Medium	Medium	State	Short	High	PP



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	and CSX High Bridge bridges are no longer in use and are no longer maintained by NYSDOT or CSX. Work with NYSDOT or CSX to remove or begin maintenance of these bridges to prevent failure.			2-5 3-7							
CC-6	North Division Street Bridge in Aurelius catches debris. Explore and install mitigation measures.	Existing	Flood	1-5 1-6	County with municipal support	Medium	Low	County, Municipal	Short	Medium	PP
CC-7	Explore flooding of Aurora Street and Long Hill Road in Moravia and mitigation measures.	Existing	Flood	1-5 1-6	County with municipal support	High	Medium	County, Municipal, grants	Short	High	PP
CC-8	Rockefeller Road Protection and Mitigation Project. Improve resiliency of County and Town Roads in the vicinity of steep slopes of the Owasco Lake Valley particularly Rockefeller and Oak Hill Roads.	Existing	Flood	1-1 1-5 4-1 4-4	County	High	High	County, grants	Short	High	PP
CC-9	Conduct engineering to determine how to utilize the County digester as an emergency power source to Cayuga County buildings at the County House Road Complex.	Existing	All	3-3	County	Medium	Medium	County	Short	High	ES
CC-10	Detailed flood analysis and installation of green infrastructure in flood prone areas.	Both	Flood	1-5 1-6	County with municipal support	Medium	Medium	County, Municipal, grants	Long Term	Medium	PP
CC-11	Create a list of emergency equipment available in Cayuga County.	N/A	All	3-6 3-7	County with municipal support	Low	Low	County	Short	Low	ES
CC-12	Explore ways to make the railroad crossing at North Division Street in the City of Auburn safer.	Existing	All	2-2 3-1 3-2	Railroad, County with municipal support	Low	Low	Railroad, County, Municipality	Long Term	Low	PE
CC-13	Re-evaluate the rule curve of Owasco Lake.	N/A	Landslide Flood	4-1 4-2 4-3	USACOE, County	Medium	Low	USACE, County, grant	Short	Medium	NR
CC-14	Identify places to store wood	N/A	All	3-1	County	Low	Low	County	Short	Low	PP



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	debris after an incident.			3-3 3-7							
CC-15	Develop a plan to get fuel where it is needed after an incident.	N/A	All	1-6 3-1 3-2	County	Low	Low	County	Short	Medium	PP
CC-16	Work with the City of Auburn to maintain and flood proof their water pump Station	Existing	Flood	1-1 3-7	City of Auburn, County	High	Medium	City of Auburn, grant	Short	High	SP
CC-17	Develop a tree trimming law to prevent improper trimming of trees which leads to road closures and phone/cable line damage and failures.	Existing	All	1-6	County with municipal support	Medium	Low	County, Municipalities	Long Term	Medium	PP
CC-18	<p>Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Provide and maintain links to the HMP website, and regularly post notices on Cayuga County homepage(s) referencing the HMP webpages. <input type="checkbox"/> Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation. <input type="checkbox"/> Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, 	N/A	All Hazards	2-1 2-2 2-3 2-4 2-5	County Planning, NYSOEM, FEMA	Medium	Medium	Municipal Budget, HMA programs with local or county match	Short Term	High	PE



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	and personal natural hazard risk reduction measures. <ul style="list-style-type: none"> Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding. 										
CC-19	Support Incorporation of ordinances and/or zoning restrictions to control and mitigate future development in hazard areas, specifically as identified in County multi-hazard identification map provided in Section I of this annex.	N/A	All Hazards	1-6 4-3	County	Medium	Medium	Municipal Budget	Short	Medium	PR
CC-20	Continue to improve communication systems.	N/A	All Hazards	3-3 3-7	County	Medium	Medium	Municipal Budget	Short	Medium	ES PR
CC-21	Develop programs/procedures to capture and archive loss data from events. Examples include: <ul style="list-style-type: none"> Record location and length of roadway closures; Develop a database of residential and commercial property damage, including permit history for such repairs; High water marks, perhaps painting phone poles with high water marks and or regulatory Base Flood Elevations (BFEs). 	N/A	All Hazards	1-3 1-4	County with support from, NYSOEM and FEMA	Medium	Medium	Municipal Budget	Short	Medium	PR
CC-22	Obtain and install backup power sources at critical	N/A	All Hazards	3-3 3-5	County	Medium	Medium	Municipal Budget, grant	Short	Medium	ES



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	facilities especially for the Emerson Park Pavilion for use as shelter.										
CC-23	<p>Participate in local, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Such programs may include developing a detailed inventory of critical facilities based upon FEMA's Comprehensive Data Management System (CDMS) which could be used for various planning and emergency management purposes including:</p> <ul style="list-style-type: none"> • Support the performance of enhanced risk and vulnerability assessments for hazards of concern. • Support state, county and local planning efforts including mitigation (including updates to the State HMP), comprehensive emergency management, debris management, and land use. <p>Improved structural and facility inventories could incorporate flood, wind and seismic-specific parameters (e.g. first floor elevations, roof types, structure types based on FEMA-154 "Rapid Visual Screening of Buildings for Potential Seismic Hazards" methodologies). It is recognized that these programs will need to be initiated and supported at</p>	N/A	All Hazards	1-1 1-3 1-4	Hazard Mitigation Plan Coordinator	Medium-High	Medium-High	FEMA Mitigation Grant Programs with local match	Long Term DOF	Medium	PR



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	Cayuga County and/or State level, and will require training, tools and funding provided at the county, state and/or federal level.										
CC-24	Support ongoing updates of Comprehensive Emergency Management Plans	New and Existing	All Hazards	1-6	County Emergency Management	Low	Low	Municipal Budget	On-going	High	PR
CC-25	Support creation and enhancement of Mutual Aid agreements with neighboring communities for continuity of operations	N/A	All Hazards	3-2 3-5 3-6 3-7	County	Medium	Low	Municipal Budget	Short Term	High	PR, ES
CC-26	Identify and develop agreements with entities that can provide support with FEMA/NYSOEM paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/SOEM paperwork compilation, submissions, record-keeping	N/A	All Hazards	3-7	County	Medium	Medium	Municipal Budget	Short Term	Medium	PR, ES
CC-27	Work with regional agencies (i.e. County and NYSOEM) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).	N/A	All Hazards	3-6 3-7	County, FEMA	Medium	Medium	Municipal Budget, FEMA HMA and HLS grant programs	Short-Long Term DOF	Medium	PR
CC-28	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	New and Existing	All Hazards	3-1 3-5	County Emergency Management and Planning,	High	Low – High (for 5 year update)	Municipal Budget, FEMA planning grants	On-going	High	PR
CC-29	Purchase, relocate, or elevate County-owned structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss	Existing	Flood, Severe Storm	1-2 4-2	County Planning, Emergency Management with support from NYSOEM,	High	High	FEMA Mitigation Grants	Long Term DOF	Medium	PP



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	property as priority. Phase 1: Identify appropriate candidates based on cost-effectiveness. Phase 2: Where determined to be a viable option, work with property owners toward implementation of the determined action based on available funding from FEMA and local match availability				FEMA						
CC-30	Inventory and evaluate private bridges throughout Cayuga County.	Existing	Flood	1-5 1-6	County Planning, Emergency Management	High	Low	Municipal Budget	Short	Medium	PR
CC-31	Continue to monitor and upgrade bridges as needed to mitigate ice jams, flooding, and other ice damage (e.g. Hayden Road and NY Central Railroad Bridges).	Existing	Flood	1-1 1-7 3-4	County Planning, Emergency Management with support from NYSDOT, Town of Mentz	High	High	Municipal Budget, Grants	Short	Medium	PR
CC-32	Promote the participation of Floodplain Administrators within the planning process and other activities.	N/A	Flood	1-4 1-7	County, NYSOEM and FEMA	Medium	Medium	Municipal Budget	Short	Medium	PR
CC-33	Maintain County's involvement with the Storm Ready Program.	N/A	Severe Storm	1-4 1-6 2-2	County, NYSOEM and FEMA	Medium	Low	Municipal Budget	Short Term DOF	Medium	PE
CC-34	Support adoption of regulations for undergrounding utilities in new developments outside of flood hazard areas.	N/A	Severe Storm	1-6 3-1	County Planning	Medium	Low	Municipal Budget	Short	High	PR
CC-35	Support Implementation of permit fee waivers for installation of backup power for private property.	N/A	Severe Storm	2-4 2-5	County Planning	Medium	Low	Municipal Budget	Short	High	PR
CC-36	Provide public education and outreach on proper installation and/or use of backup power	N/A	Severe Storm	2-1 2-2	County Planning	Medium	Low	Municipal Budget	Short	High	PR
CC-37	Upgrade facilities impacted by	Existing	Ground	1-1	County	Medium	Medium	NYS,	DOF	Medium	PP



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	sinkhole contamination (e.g. generator, treatment).		Failure	1-7							
CC-38	Inventory shale in Cayuga County and upgrade roads and facilities that could be impacted by ground failure	Existing	Ground Failure	1-1 1-7	County	Medium	Medium	NYS, Municipal Budget, grants	DOF	Medium	PP
CC-39	Inventory muck in Cayuga County and upgrade roads and facilities that could be impacted by ground failure	Existing	Ground Failure	1-1 1-7	County	Medium	Medium	NYS, Municipal Budget, grants	DOF	Medium	PP
CC-40	Catalog and prioritize at grade rail crossing for improvement.	Existing	Transportation	1-1 1-6 3-7	County, Railroads	Medium	Low	Municipal Budget	DOF	Low	PP
CC-41	Work with railroads to upgrade and maintain Cayuga Lake and Seneca River crossings.	Existing	Transportation	1-1 1-6 3-7	County, Railroads	High	Medium	Municipal Budget, Railroads	DOF	Low	PP
CC-42	The Cayuga SWCD proposes to complete bank stabilization along the Cayuga Lake lakeshore and nearby tributaries as needed. Recreation areas, steep slopes and certain beaches on part of the lake may require stabilization.	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR
CC-43	The Cayuga SWCD proposes to complete bank stabilization as needed along the Cold Springs Brook watercourse. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Enhancement of the floodplain will also lead to a reduction of damage during a major storm event. Portions of the stream are also prone to ice jams. These cause flooding and an increase in erosion due to bed and bank scour, as well as having the potential for causing	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	significant property damage as well as threatening a 60 bed adult care facility, the Village of Weedsport’s wastewater treatment plant and the CSX/Amtrak railroad culvert, berm and track. Significant losses to valuable agricultural land, forestland and property would be mitigated.										
CC-44	The Cayuga SWCD proposes to complete bank stabilization as needed along the Crane Brook watercourse. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Enhancement of the floodplain will also lead to a reduction of damage during a major storm event. Significant losses to valuable agricultural land, forestland and property would be mitigated.	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR
CC-45	The Cayuga SWCD proposes to complete bank stabilization and clearing/snagging of debris jams from the channel of the Dutch Hollow Brook watercourse. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Areas where improvements can be made to enhance the stream’s ability to reach its floodplain will also be investigated and potential projects proposed. Significant losses to valuable	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	agricultural land, forestland and property would be mitigated. The reduction of soil loss would also be beneficial for the water quality of Owasco Lake as a result of the reduction of nutrient rich soil particles entering the Lake. Additional projects listed in the Dutch Hollow Brook Stream bank Management Plan.										
CC-46	The Cayuga SWCD proposes to complete bank stabilization along a few reaches of the Fall Creek watercourse, and to enhance the floodplain. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Significant losses to valuable agricultural land, forestland and property would be mitigated.	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR
CC-47	The Cayuga SWCD proposes to complete bank stabilization along a few reaches of the Great Gully Creek watercourse. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Significant losses to valuable agricultural land, forestland and property would be mitigated. The reduction of soil loss would also be beneficial for the water quality of Cayuga Lake as a result of the reduction of nutrient rich soil particles entering the	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	Lake.										
CC-48	The Cayuga County SWCD proposes to put bank stabilization and erosion control measures in place at Moon Beach, on the southeastern shore of Lake Ontario, to combat shoreline erosion issues.	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR
CC-49	The Cayuga SWCD proposes to complete bank stabilization, gravel bar removal and/or reshaping and clearing/ snagging of debris jams from the channel of the Owasco Inlet watercourse. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Areas where improvements can be made to enhance the stream's ability to reach its floodplain will also be investigated and potential projects proposed. Significant losses to valuable agricultural land, forestland and property would be mitigated. The reduction of soil loss would also be beneficial for the water quality of Owasco Lake as a result of the reduction of nutrient rich soil particles entering the Lake.	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR
CC-50	The Cayuga SWCD proposes to complete bank stabilization along the Owasco Lake lakeshore and throughout the immediate unnamed smaller tributaries that flow into the lake, as needed. The reduction of soil loss would also be beneficial for the	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	water quality of Owasco Lake as a result of the reduction of nutrient rich soil particles entering the Lake.										
CC-51	The Cayuga SWCD proposes to complete bank stabilization and clearing/snagging of debris jams from the channel of the Owasco Outlet watercourse. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Areas where improvements can be made to enhance the stream's ability to reach its floodplain will also be investigated and potential projects proposed. Significant losses to valuable agricultural land, forestland and property would be mitigated. Portions of the outlet are also prone to ice jams. These cause flooding and an increase in erosion due to bed and bank scour.	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR
CC-52	The Cayuga SWCD proposes to complete bank stabilization along a few reaches of the Paines Creek watercourse. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Significant losses to valuable agricultural land, forestland and property would be mitigated. The reduction of soil loss would also be beneficial for the water quality of Cayuga Lake as a result of	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	the reduction of nutrient rich soil particles entering the Lake. Turbidity has been an issue in for some of the village water treatment systems that draw public water from the lake, so a reduction of sediments would benefit those systems as well.										
CC-53	The Cayuga SWCD proposes to complete bank stabilization as needed along the Putnam Brook and North Brook watercourses. Protecting the banks from erosion and removing excess gravel and debris from the watercourses will allow the main flow of the water to remain in the channel. Enhancement of the floodplain will also lead to a reduction of damage during a major storm event. Portions of the streams are also prone to ice jams. These cause flooding and an increase in erosion due to bed and bank scour, as well as having the potential for causing significant property damage. Significant losses to valuable agricultural land, forestland and property would be mitigated.	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR
CC-54	The Cayuga SWCD proposes to complete bank stabilization and clearing/snagging of debris jams from the channel of the Big Salmon Creek, Little Salmon Creek and their tributaries. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	channel. Areas where improvements can be made to enhance the streams' ability to reach their floodplain will also be investigated and potential projects proposed. Significant losses to valuable agricultural land, forestland and property would be mitigated. The reduction of soil loss would also be beneficial for the water quality of Cayuga Lake as a result of the reduction of nutrient rich soil particles entering the Lake.										
CC-55	The Cayuga SWCD proposes to complete bank stabilization and clearing/snagging of debris jams from the channel of the Seneca River, the Barge Canal and Cayuga/Seneca Canal. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Areas where improvements can be made to enhance the waterbodies' ability to reach their floodplains will also be investigated and potential projects proposed.	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR
CC-56	The Cayuga SWCD proposes to identify areas of concern and complete bank stabilization along the Skaneateles Lake lakeshore as needed.	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR
CC-57	The Cayuga SWCD proposes to complete bank stabilization, gravel bar removal and/or reshaping and clearing/snagging of debris jams from	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	the channel of the Sterling Creek, Sterling Valley Creek and their tributaries. Protecting the banks from erosion and removing excess gravel and debris from the watercourses will allow the main flow of the water to remain in the channel. Removal of excessive vegetation, including harmful invasive species is also a priority. Areas where improvements can be made to enhance the streams' ability to reach their floodplains will also be investigated and potential projects proposed. Significant losses to valuable agricultural land, forestland and property would be mitigated.										
CC-58	The Cayuga SWCD proposes to complete bank stabilization along a few reaches of the Sucker Brook watercourse. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Areas where improvements can be made to enhance the stream's ability to reach its floodplain will also be investigated and potential projects proposed. Significant losses to valuable agricultural land, forestland and property would be mitigated. The reduction of soil loss would also be beneficial for the water quality of Owasco Lake as a result of the reduction of nutrient rich soil particles	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	entering the Lake. Additional projects listed in the Sucker Brook Stream bank Management Plan.										
CC-59	The Cayuga SWCD proposes to complete bank stabilization along a few reaches of the Veness Brook watercourse. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Areas where improvements can be made to enhance the stream's ability to reach its floodplain will also be investigated and potential projects proposed. Significant losses to valuable agricultural land, forestland and property would be mitigated. The reduction of soil loss would also be beneficial for the water quality of Owasco Lake as a result of the reduction of nutrient rich soil particles entering the Lake. Additional projects listed in the Veness Brook Stream bank Management Plan.	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR
CC-60	The Cayuga SWCD proposes to complete bank stabilization and clearing/snagging of debris jams in the watercourses throughout the Village of Moravia and the Town of Locke. Protecting the banks from erosion and removing excess gravel and debris from the watercourses will allow the main flow of the water to remain in the channels. The SWCD will also work with the Village DPW,	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	Town of Locke Highway and County Highway to properly size culverts and improve the storm sewers.										
CC-61	The Cayuga SWCD proposes to complete bank stabilization and clearing/snagging of debris jams in the watercourses throughout the Village of Port Byron. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel, thereby reducing the potential for flooding and property damage from bank loss. Portions of the outlet are also prone to ice jams. These cause flooding and an increase in erosion due to bed and bank scour, as well as having the potential for causing significant property damage.	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR
CC-62	The Cayuga SWCD proposes to complete bank stabilization as needed along the Yawgers Creek watercourse. Protecting the banks from erosion and removing excess gravel and debris from the watercourse will allow the main flow of the water to remain in the channel. Significant losses to valuable agricultural land, forestland and property would be mitigated. The reduction of soil loss would also be beneficial for the water quality of Cayuga Lake as a result of the reduction of nutrient rich soil particles entering the	N/A	Flood	4-1 4-2 4-3 4-4	Cayuga SWCD; NYSDEC; USACE;	High	High	HMA grants, State, County, local funding	On-going DOF	Medium	NR



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	Lake.										

Notes:

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (NA) is inserted if this does not apply.

Acronyms and Abbreviations:

- ARC American Red Cross
- DPW Department of Public Works
- FEMA Federal Emergency Management Agency
- HMA Hazard Mitigation Assistance
- HMP Hazard Mitigation Proposal
- N/A Not applicable
- NFIP National Flood Insurance Program
- NYSOEM New York State Office of Emergency Management
- NOAA National Oceanic and Atmospheric Administration
- SWCD Cayuga County Soil and Water Conservation District
- USACE U.S Army Corp of Engineers
- USGS U.S. Geological Survey



Costs:

Where actual project costs have been reasonably estimated:

Low = < \$10,000

Medium = \$10,000 to \$100,000

High = > \$100,000

Where actual project costs cannot reasonably be established at this time:

Low = Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.

Medium = Could budget for under existing work-plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.

High = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

Where possible, an estimate of project benefits (per FEMA’s benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low = < \$10,000

Medium = \$10,000 to \$100,000

High = > \$100,000

Where numerical project benefits cannot reasonably be established at this time:

Low = Long term benefits of the project are difficult to quantify in the short term.

Medium = Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.

High = Project will have an immediate impact on the reduction of risk exposure to life and property.

Potential FEMA HMA Funding Sources:

PDM = Pre-Disaster Mitigation Grant Program

FMA = Flood Mitigation Assistance Grant Program

RFC = Repetitive Flood Claims Grant Program

SRL = Severe Repetitive Loss Grant Program

HMGP = Hazard Mitigation Grant Program

Timeline:

Short = 1 to 5 years. Long Term= 5 years or greater. OG = On-going program.

DOF = Depending on funding.

Notes (for Mitigation Type):

1. PR=Prevention: Government, administrative or regulatory actions or processes that influence the way land and buildings are developed and built Examples of these are acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
2. PP= Property Protection: These actions also include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
3. PE=Public Education and Awareness: Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and school-age and adult education programs.
4. NR=Natural Resource Protection: Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.



5. SP=Structural Projects: Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
6. ES=Emergency Services: Actions that protect people and property, during and immediately following, a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities.

G.) PRIORITIZATION OF MITIGATION INITIATIVES

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits equal or exceed Costs? (Yes or No)	Is project Grant eligible? (Yes or No)	Can Project be funded under existing programs/budgets? (Yes or No)	Priority (High, Med., Low)
CC-1	2	H	M	Y	Y	Y	M
CC-2	2	M	L	Y	N	Y	H
CC-3	2	H	L	Y	Y	Y	H
CC-4	3	M	M	Y	N	Y	M
CC-5	2	M	M	Y	N	N	H
CC-6	2	M	L	Y	N	Y	M
CC-7	2	H	M	Y	Y	Y	H
CC-8	4	H	H	Y	Y	Y	H
CC-9	1	M	M	Y	N	Y	H
CC-10	2	M	M	Y	Y	Y	M
CC-11	2	L	L	Y	N	Y	L
CC-12	3	L	L	Y	N	N	L
CC-13	3	M	L	Y	Y	Y	M
CC-14	3	L	L	Y	N	Y	L
CC-15	3	L	L	Y	N	Y	M
CC-16	2	H	M	Y	Y	Y	H
CC-17	1	M	L	Y	N	Y	M
CC-18	5	M	M	Y	Y	Y	H
CC-19	2	M	M	Y	N	Y	M
CC-20	2	M	M	Y	Y	Y	M
CC-21	2	M	M	Y	Y	Y	M
CC-22	2	M	M	Y	Y	Y	M
CC-23	3	M	M	Y	Y	N	M
CC-24	1	L	L	Y	N	Y	H
CC-25	4	M	L	Y	N	Y	H
CC-26	1	M	M	Y	N	Y	M
CC-27	2	M	M	Y	Y	N	M
CC-28	2	H	L	Y	Y	N	H
CC-29	2	H	H	Y	Y	N	M
CC-30	2	H	L	Y	N	Y	M
CC-31	2	H	H	Y	Y	N	M
CC-32	2	M	M	Y	N	Y	M
CC-33	3	M	L	Y	N	Y	M
CC-34	2	M	L	Y	N	Y	H

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Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits equal or exceed Costs? (Yes or No)	Is project Grant eligible? (Yes or No)	Can Project be funded under existing programs/budgets? (Yes or No)	Priority (High, Med., Low)
CC-35	2	M	L	Y	N	Y	H
CC-36	2	M	L	Y	N	Y	H
CC-37	2	M	M	Y	Y	N	M
CC-38	2	M	M	Y	Y	N	M
CC-39	2	M	M	Y	Y	N	M
CC-40	3	M	L	Y	N	Y	L
CC-41	3	H	M	Y	Y	Y	L
CC-42	4	H	H	Y	Y	N	M
CC-43	4	H	H	Y	Y	N	M
CC-44	4	H	H	Y	Y	N	M
CC-45	4	H	H	Y	Y	N	M
CC-46	4	H	H	Y	Y	N	M
CC-47	4	H	H	Y	Y	N	M
CC-48	4	H	H	Y	Y	N	M
CC-49	4	H	H	Y	Y	N	M
CC-50	4	H	H	Y	Y	N	M
CC-51	4	H	H	Y	Y	N	M
CC-52	4	H	H	Y	Y	N	M
CC-53	4	H	H	Y	Y	N	M
CC-54	4	H	H	Y	Y	N	M
CC-55	4	H	H	Y	Y	N	M
CC-56	4	H	H	Y	Y	N	M
CC-57	4	H	H	Y	Y	N	M
CC-58	4	H	H	Y	Y	N	M
CC-59	4	H	H	Y	Y	N	M
CC-60	4	H	H	Y	Y	N	M
CC-61	4	H	H	Y	Y	N	M
CC-62	4	H	H	Y	Y	N	M

Notes: H = High. L = Low. M = Medium. N = No. N/A = Not applicable. Y = Yes.



Explanation of Priorities

High Priority = A project that meets multiple objectives (i.e., multiple hazards), benefits exceeds cost, has funding secured or is an on-going project and project meets eligibility requirements for the Hazard Mitigation Grant Program (HMGP) or Pre-Disaster Mitigation Grant Program (PDM) programs. High priority projects can be completed in the short term (1 to 5 years).

Medium Priority = A project that meets goals and objectives, benefits exceeds costs, funding has not been secured but project is grant eligible under, HMGP, PDM or other grant programs. Project can be completed in the short term, once funding is completed. Medium priority projects will become high priority projects once funding is secured.

Low Priority = Any project that will mitigate the risk of a hazard, benefits do not exceed the costs or are difficult to quantify, funding has not been secured and project is not eligible for HMGP or PDM grant funding, and time line for completion is considered long term (1 to 10 years). Low priority projects may be eligible other sources of grant funding from other programs. A low priority project could become a high priority project once funding is secured as long as it could be completed in the short term.

Prioritization of initiatives was based on above definitions: Yes

Prioritization of initiatives was based on parameters other than stated above: Not applicable.

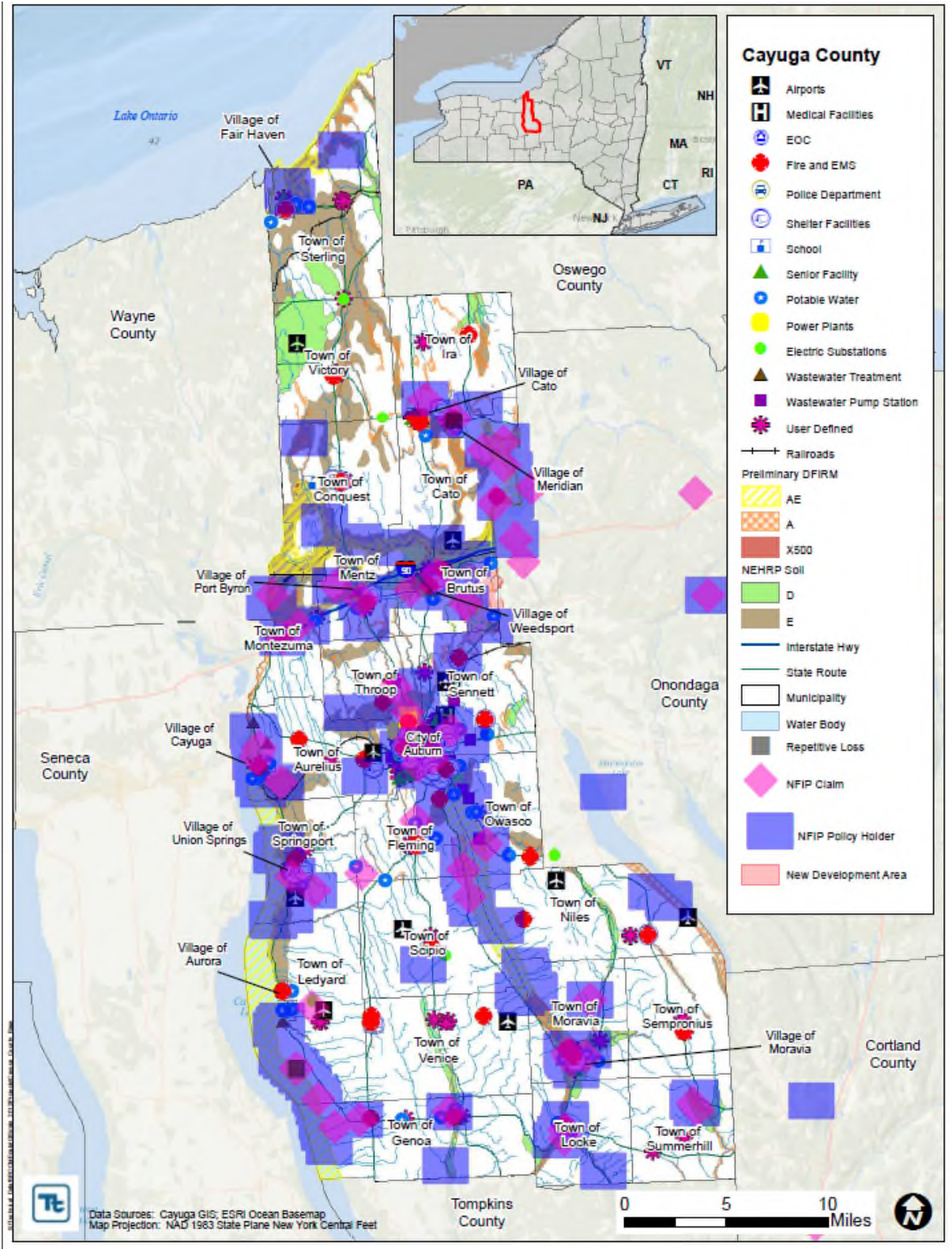
H.) FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

None at this time.

I.) HAZARD AREA EXTENT AND LOCATION

A hazard area extent and location map has been generated for the jurisdiction to illustrate the probable areas impacted within the municipality and is provided on the next page. This map is based on the best available data at the time of the preparation of this Plan, and is considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the jurisdiction has significant exposure. The Planning Area maps are provided in the hazard profiles within Section 5.4, Volume I of this Plan and in the municipal annexes in Section 9 of this plan.

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J.) ADDITIONAL COMMENTS

No additional comments at this time.