

## Jurisdictional Annex

### Village of Earlville

#### 1. Contacts

The contacts for the Village of Earlville regarding this plan are identified as follows:

- Dale Wissenbach - Village DPW  
Address: Po Box 88, 8 N. Main Street, Earlville NY  
Phone: (315) 691-7000  
Email: [earlilledpw@gmail.com](mailto:earlilledpw@gmail.com)

- Kelly Beach – Village Clerk  
Address: Po Box 88, 8 N. Main Street, Earlville NY  
Phone: (315) 691-2121  
Email: [villageofearlville@gmail.com](mailto:villageofearlville@gmail.com)

Village Website: <https://www.villageofearlville.com/>

#### 2. Municipal Profile

##### 2.1 Population

The 2020 Census estimated that 774 people live in the Village of Earlville. The Village's population has decreased by 11.2% since the 2010 Census (872) (U.S. Census Bureau, 2020). The median age in the Village is 27 years and 14.7% of the population is over the age of 65. The Village currently covers approximately 1.1 square miles. The Village has an equalized assessed value of approximately \$19 million dollars, which is distributed across a variety of property classes.

##### 2.2 Location

The Village of Earlville is located within the Towns of Hamilton (Madison County) and Sherburne (Chenango County) in the southern portion of Madison County and the northern portion of Chenango County. The Village's primary transportation route is State Route 12B. The Village of Earlville is shown in Figure 1 (Attachment A).

### **2.3 Governing Body**

The Village of Earlville is governed by a five-member Village Board, which includes the Mayor and four Trustees.

### **2.4 Recent and Anticipated Future Development**

Since the last Madison County HMP update (2017), a Dollar General was constructed at 72 S Main Street in 2019, and Madison Lane Storage was constructed on S Main Street in 2020. No new development has occurred in the Special Flood Hazard Area, and the reported developments have not changed the Village's vulnerability to natural hazards.

### 3. Capability Assessment

#### 3.1 Planning and Regulatory Capability

The Village has considered the 2017 HMP when implementing their existing plans and regulations and progressing projects. The Village's HMP update will be incorporated into and referenced by future updates of the plans, policies, ordinances, programs, studies, and reports listed in Table 1, below. The Village also participated in Chenango County's HMP update in 2021.

Table 1. Planning Mechanisms and Capabilities		
Planning Mechanism	Village of Earlville	Notes
<b>Administration</b>		
Maintenance Programs	Yes	
Mitigation Planning Committee	Yes	
Mutual Aid or Shared Services Agreements	Yes	
Planning Board	No	
Zoning Board	No	
<b>Development Approvals</b>		
Building Code	Yes	
Building Code Effectiveness	No	
Grading Schedule (BCEGS) Evaluation		
Fire Department ISO Rating		
Site Plan Review Requirements	No	
Special Use Permits	No	
<b>Funding Resources</b>		
Authority to Levy Taxes	Yes	
Capital Improvement Project Funds	Yes	
Federal Funding Programs (i.e., USDA, FEMA, others)	Yes	
General Obligation Bonds and/or Special Tax Bonds	Yes	
Impact Fees for New Development	No	
State Funding Programs (i.e., NYSEFC, NYSOCR, NYSDEC, others)	Yes	
Utility Fees (i.e., water, sewer, stormwater, gas, electric)	Yes	Water
<b>Land Use Regulations</b>		
Density Controls	No	
Flood Insurance Rate Maps	Yes	
Floodplain Ordinance	Yes	
Hillside Development Regulations	No	
Open Space Preservation	No	
Stormwater Management Regulations	Yes	State regulations apply
Streambank Setback Regulations	Yes	State Health dept. rules for septic

Table 1. Planning Mechanisms and Capabilities		
Planning Mechanism	Village of Earlville	Notes
Subdivision Regulations	Yes	
Transfer of Development Rights	Yes	State and Federal Programs available for agriculture
Zoning Ordinance	Yes	
Natural Resources		
Forest/Vegetation Management	Yes	NYSDEC 319 program available
Stream Corridor Management	No	
Stream Dumping Regulations	Yes	State rules apply
Urban Forestry and Landscape Management	No	
Watershed Management	Yes	Chesapeake Bay Tributary Strategy
Wetland Regulations	Yes	State and Federal rules apply
Plans		
Capital Improvement Plan	No	
Comprehensive Emergency Management Plan	No	Madison and Chenango County have plan in place
Comprehensive Plan	Yes	
Continuity of Operations Plan	No	Madison County has plan in place
Economic Development Plan	No	
Other Plans (specify)	Yes	Adopted Public Health Plan in response to COVID-19 pandemic (required by NYS)
Programs/Organizations		
Climate Smart Community	Yes	Registered
Local Emergency Preparedness/Disaster Response Organizations	Yes	Earlville Fire Dept., SOMAC, Sherburne Ambulance
Local Environmental Protection Organizations	No	
National Weather Service StormReady Certification	No	County is certified
Outreach Programs	Yes	Education of Elected to NIMS Standards
Partnerships with private entities addressing mitigation or disaster response	No	
School Programs or Adult Educational Programs	Yes	Fire Safety Education
Staff Positions		
Civil Engineer	No	Contracted out as needed
Code Enforcement Officer	Yes	
Emergency Manager	Yes	County Emergency Management and Earlville Fire Dept.
Floodplain Administrator	Yes	Chenango County Code Enforcement
Planner/GIS Coordinator	No	County assists
Technical Abilities		
Grant Writing	No	County assists
Hazard Information Centers	No	

Table 1. Planning Mechanisms and Capabilities		
Planning Mechanism	Village of Earlville	Notes
Hazard Warning Systems	Yes	

### 3.2 Emergency Communications, Routes, and Shelters

The Village utilizes their website and Facebook page for emergency communications. The Village is also covered by Madison and Chenango County's emergency notification systems. State Route 12B is the primary transportation route in the Village. The Village's emergency shelter locations are summarized in Table 2, below.

Table 2. Emergency Shelters						
Facility	Address	Owner/ Occupant	Support medical needs?	ADA Compliant?	Pets accepted?	Notes
Earlville Village Office and Fire Department	8 North Main Street, Earlville, NY 13332	Village of Earlville	Yes	Yes	No	No backup power available

### 3.3 Temporary and Permanent Housing Locations

The potential temporary and permanent housing locations listed below were identified for displaced residents in the Village of Earlville based on the 2017 NYS Hazard Mitigation Planning Standards.

- **Potential Temporary Housing Locations**
  - Field near former school in Village
- **Potential Permanent Housing Locations**
  - Privately owned vacant land in neighboring Town of Hamilton (coordination required with landowners for potential property purchase or subdivisions)

## 4. Hazard Vulnerabilities and Ranking

### 4.1 Risk Assessment

The Village reviewed multiple natural hazards to include in the HMP update. The hazard analysis criteria is summarized in Table 3. The Village's natural hazard analysis results are provided in Table 4.

Score	Extent	Onset	Impact	Frequency	Total Score	Overall Vulnerability
1	One location	Days of warning	Minor damages/injuries	Rare	4 to 5	Low
2	Several locations	Hours of warning	Moderate damages/injuries	Infrequent	6 to 8	Moderate
3	Large area	No warning	Severe damages/injuries	Regular	9 to 12	High

Hazard Event	Extent	Onset	Impact (Damages and Injury)	Frequency	Total Score and Overall Vulnerability	Jurisdiction Rank
Severe Thunderstorm/Wind/Hail	3	2	3	3	11 - High	1
Severe Winter Storm	3	2	3	3	11 - High	2
Ice Storm	3	1	3	3	10 - High	3
Tornado	3	3	2	1	9 - High	4
Extreme Temperatures	3	1	2	2	8 - Moderate	5
Earthquake	3	3	1	1	8 - Moderate	6
Flood	2	2	1	2	7 - Moderate	7
Drought	3	1	1	1	6 - Moderate	8
Ice Jam	1	1	1	1	4 - Low	9

## 4.2 Critical Facilities

Critical facilities include any facility that is critical for emergency response or that requires special emergency response in the event of hazardous incidents as identified by the Village of Earlville. Table 5, below, denotes the types and locations of critical facilities within the Village. The Village's water storage tank and water supply wells are located in the Town of Hamilton.

Table 5. Critical Infrastructure in the Village of Earlville		
Facility Name	Address	Located in Floodplain
Village Water Pump House	E Main Street, Earlville, NY 13332	No
Earlville Water Storage Tank	off Bentley Ave (tank located in Town of Hamilton)	No
Earlville Water Supply Wells	off Clyde Street	No
Earlville Village Offices and Fire Department	8 North Main Street, Earlville, NY 13332	No
Earlville Department of Public Works	31 Fayette Street, Earlville, NY 13332	No
Frontier Communications	N Main St	No

## 5. Priority Hazard Events

The following sections detail the priority hazard events identified by the jurisdiction. Additional information about each hazard including frequency, history, and severity within Madison County is included within Section 5.0 of the main body of the Hazard Mitigation Plan. Historical tornado and earthquake records are reported for the last ten years (2012-2022). All other hazard profiles report events that have occurred in the last five years (2017-2022).

The probability of climate-related hazard events is expected to increase in the future within the Village of Earlville. Climate change is expected to cause an increase in weather volatility, rising sea level, and greater temperature extremes.

Past occurrences of hazard events are indicated in their respective profiles below. Some hazards do not have historical records, but they were profiled for future mitigation planning consideration. The Village of Earlville chose not to profile landslide and wildfire in their annex even though these hazards were profiled for the County. The Village does not have a history of nor do they have any significant concerns regarding these hazards.

### 5.1 Severe Thunderstorm, Windstorm, or Hail

#### 5.1.1 *Description*

For a description of these hazards, please see Section 5.1 of the main body of the plan.

#### 5.1.2 *Hazard Vulnerability*

The Village's overall vulnerability for a severe thunderstorm, windstorm, or hail event is high, as documented in their hazard analysis in Section 4.1. The entire Village is susceptible to damages from a severe thunderstorm, windstorm, or hail event. Fallen trees from severe winds can damage overhead utility lines, resulting in power outages. In addition, these events are likely to result in damages to private and public infrastructure and property. The Village Department of Public Works is responsible for tree maintenance/debris clearing along Village roadways; private utility companies are responsible for maintenance of utility corridors. Damages to the Village's critical infrastructure or primary transportation route (State Route 12B) would be most impactful to Village residents. Development

within the Village is concentrated along State Route 12B (N and S Main St) and E and W Main Street.

### 5.1.3 Historical Hazard Occurrences and Damage Estimates

The NCDC reports two specific severe storm events that occurred in the Village of Earlville within the past five years. Both of these records were thunderstorm winds. Estimated damages for the Village of Earlville ranged from \$3,000 to \$5,000 per event (Table 6). Actual damages were likely greater than those estimated by the NCDC.

Table 6. Severe Storm Event Records for the Village of Earlville				
Event Type	Date	Magnitude	Estimated Property Damage	Estimated Crop Damage
Thunderstorm Wind	8/22/2017	55 knots	\$5,000.00	-
Thunderstorm Wind	6/30/2021	50 knots	\$3,000.00	-
Total			\$8,000.00	None reported

### 5.1.4 Future Potential Impacts

The Village's overall vulnerability for a severe thunderstorm, windstorm, or hail event remains high. The Village DPW and private utility companies will continue to address tree maintenance along roads and utility corridors to mitigate potential storm damages. The frequency and magnitude of severe storm events may increase due to climate change.

## 5.2 Severe Winter Storm

### 5.2.1 Description

For a description of this hazard, please see Section 5.3 of the main body of the plan.

### 5.2.2 Hazard Vulnerability

The Village's overall vulnerability for a severe winter storm is high, as documented in their hazard analysis in Section 4.1. These storms typically affect more than one area within the County. The entire Village of Earlville is susceptible to damages from a severe winter storm event. The Village Department of Public Works clears Village streets during heavy snow events,

and the Village works with the Town of Hamilton Highway Department, the Madison County Highway Department and NYS Department of Transportation for clearing of other roadways. Roadway safety is a major concern during severe winter storm events. Damages to the Village's critical infrastructure or primary transportation route (State Route 12B) would be most impactful to Village residents. Development within the Village is concentrated along State Route 12B (N and S Main St) and E and W Main Street.

#### *5.2.3 Historical Hazard Occurrences and Damage Estimates*

The Village of Earlville has been affected by a number of severe winter storm events reported for Madison County, which are described in Section 5.3 of the main body of the plan. These storms typically affect more than one area within the County. The NCDC does not report any winter storm damage estimates specific to the Village of Earlville.

#### *5.2.4 Future Potential Impacts*

The Village's overall vulnerability for a severe winter storm remains high. The Village DPW and private utility companies will continue to address tree maintenance along roads and utility corridors to mitigate potential storm damages. The severity and frequency of severe winter storms may increase due to climate change.

### **5.3 Ice Storm**

#### *5.3.1 Description*

For a description of this hazard, please see Section 5.7 of the main body of the plan.

#### *5.3.2 Hazard Vulnerability*

The Village's overall vulnerability for an ice storm is high, as documented in their hazard analysis in Section 4.1. The entire Village of Earlville is susceptible to damages from an ice storm event. Damages to the Village's critical infrastructure or primary transportation route (State Route 12B) would be most impactful to Village residents. Development within the Village

is concentrated along State Route 12B (N and S Main St) and E and W Main Street. The Village Department of Public Works completes tree maintenance within Village road right of ways to minimize potential damages to overhead utility lines, which is common during ice storms. Private utility right of ways are generally maintained by the individual utility companies.

#### *5.3.3 Historical Hazard Occurrences and Damage Estimates*

The NCDC reports one ice storm in Madison County within the past five years, which was reported for the entire County. This event occurred on February 10, 2021 and is described in Section 5.7 of the main body of the plan. The Village reports a local record of an ice storm in April 2022 that resulted in substantial power line and tree damage. No damage estimates related to ice storms are reported specific to the Village of Earlville.

#### *5.3.4 Future Potential Impacts*

The Village's overall vulnerability for an ice storm remains high. The Village DPW and private utility companies will continue to address tree maintenance along roads and utility corridors to mitigate potential storm damages.

### **5.4 Tornado**

#### *5.4.1 Description*

For a description of this hazard, please see Section 5.8 of the main body of the plan.

#### *5.4.2 Hazard Vulnerability*

The Village's overall vulnerability for a tornado is high, as documented in their hazard analysis in Section 4.1. Topography within the Village is relatively flat and gently sloping, but the Village is surrounded by more varied topography in the Town of Hamilton. Tornadoes often touch down along topographic high points in this portion of the County, and affect more localized areas at one time, rather than longer swaths of damage experienced in flatter areas. A tornado can result in severe damage to homes, over-turned automobiles and leveling of utility lines. This event is highly likely to result in damages to private and public infrastructure and property.

#### 5.4.3 *Historical Hazard Occurrences and Damage Estimates*

Three tornadoes have occurred in Madison County within the past ten years, but none of these records occurred in the Village of Earlville. There are no damage estimates specific to the Village related to tornadoes.

#### 5.4.4 *Future Potential Impacts*

The Village's overall vulnerability for a tornado remains high. Damages from a tornado event can be devastating, and the frequency and magnitude of tornado events may increase due to climate change.

### 5.5 Extreme Temperatures

#### 5.5.1 *Description*

For a description of this hazard, please see Section 5.6 of the main body of the plan.

#### 5.5.2 *Hazard Vulnerability*

The Village's overall vulnerability for an extreme temperature event is moderate, as documented in their hazard analysis in Section 4.1. Extreme temperatures typically affect most or all of the County, and the entire Village of Earlville is susceptible to this hazard. Extreme temperature events tend to have greater impacts on vulnerable populations, including older adults (over 65 years), young children (under 5 years), people with health problems, or people who cannot afford to sufficiently heat or cool their homes. Approximately 4.2% of the population in the Village is under 5 years old, and 15% of the population is over 65 years old. Approximately 10.2% of the Village's population is below the poverty level. These populations are at a higher risk of being impacted by extreme temperature events.

#### 5.5.3 *Historical Hazard Occurrences and Damage Estimates*

The NCDC reports three extreme temperatures in Madison County within the past five years. Each of these events was an extreme cold/wind chill reported countywide. Details of these events are described in Section 5.5 of the main

body of the plan. No damage estimates related to extreme temperatures are reported specific to the Village of Earlville.

#### *5.5.4 Future Potential Impacts*

The Village's overall vulnerability for an extreme temperature event remains moderate. Extreme temperatures are likely to increase in frequency and extremity in the future due to climate change.

### **5.6 Earthquake**

#### *5.6.1 Description*

For a description of this hazard, please see Section 5.5 of the main body of the plan.

#### *5.6.2 Hazard Vulnerability*

The Village's overall vulnerability for an earthquake is moderate, as documented in their hazard analysis in Section 4.1. According to Figure 5.8 of the main body plan, the Village of Earlville has a peak ground acceleration (PGA) Hazard rating of 8-10%g. An earthquake could impact any location within the Village, though historically, the Village has not experienced significant earthquake damages. Earthquakes that damage the Village's critical infrastructure or emergency evacuation routes would result in the most significant impacts to the Village and its residents.

#### *5.6.3 Historical Hazard Occurrences and Damage Estimates*

According to the USGS Earthquake Catalog, there are no historical records of earthquakes occurring specifically in the Village of Earlville. An earthquake has the potential to cause hundreds of thousands of dollars in damages.

#### *5.6.4 Future Potential Impacts*

The Village's overall vulnerability for an earthquake remains moderate. The Village of Earlville is within an area of light seismic activity. The Village is not likely to experience significant earthquake damages.

## 5.7 Flood

### 5.7.1 *Description*

For a description of this hazard, please see Section 5.2 of the main body of the plan.

### 5.7.2 *Hazard Vulnerability*

The Village's overall vulnerability for a flood is moderate, as documented in their hazard analysis in Section 4.1. The Village is drained by the Chenango and Sangerfield Rivers. FEMA provides flood insurance rate maps for the Village of Earlville. The 100-year floodplain corresponds with areas that are at high risk for flooding (1% likely to flood any given year), and areas within a 500-year floodplain are at moderate flood risk (0.2% likely to flood in any given year). Figure 1 (Attachment A) shows FEMA mapped 100-year and 500-year floodplains within the Village. Table 7 summarizes the amount of land within the Village of Earlville that is located within 100-year and 500-year floodplains, as mapped by FEMA. None of the Village's critical facilities are located in a mapped floodplain.

<b>Table 7. Summary of Areas in Floodplains</b> <i>(Source: FEMA Q3 Digital Floodplain Data, 1996)</i>		
<b>Village of Earlville Total Area</b>	<b>Percent of Total Area</b>	
	<b>100-Year Floodplain</b>	<b>500-Year Floodplain</b>
695.6 acres	10.3%	0.5%

### 5.7.3 *Historical Hazard Occurrences and Damage Estimates*

According to the NCDC, in the past five years, no flood records were noted to specifically impact the Village of Earlville. The Village reports flooding issues along Preston Street, Clyde Street and Greene Street. Flooding in these areas typically not a result of flash flooding. As described in Section 6.0 of this annex, NFIP loss claims data were requested from FEMA and a response is pending. There are no repetitive loss properties in the Village.

#### 5.7.4 *Future Potential Impacts*

The Village's overall vulnerability for a flood remains moderate. Properties along the Chenango and Sangerfield Rivers are most vulnerable to flooding in the future. The Village proposed one flood-related mitigation action involving stormwater drainage improvements along Clyde Street. Once implemented, this action will reduce flood risk during heavy rain events in this location. The frequency and magnitude of flood events may increase due to climate change.

### 5.8 Drought

#### 5.8.1 *Description*

For a description of this hazard, please see Section 5.9 of the main body of the plan.

#### 5.8.2 *Hazard Vulnerability*

The Village's overall vulnerability for drought is moderate, as documented in their hazard analysis in Section 4.1. Agricultural areas would experience the most significant impacts. Agricultural areas are located in the northern and southern portions of the Village outside of the developed N/S and E/W Main Street corridors. The Village has a municipal water system that supplies developed properties, and therefore residents connected to municipal water are less susceptible to a drought.

#### 5.8.3 *Historical Hazard Occurrences and Damage Estimates*

The NCDC reports no specific drought events for the Village of Earlville. The Village's water system is supplied by wells, but they did not report any past issues with their water supply.

#### 5.8.4 *Future Potential Impacts*

The Village's overall vulnerability for drought remains moderate. Areas that rely on private wells, and agricultural areas (northern and southern portions of Village) are most likely to be impacted in the future. Drought events are

likely to increase in frequency and magnitude in the future due to climate change.

## 5.9 Ice Jam

### 5.9.1 *Description*

For a description of this hazard, please see Section 5.11 of the main body of the plan.

### 5.9.2 *Hazard Vulnerability*

The Village's overall vulnerability for an ice jam is low, as documented in their hazard analysis in Section 4.1. Properties along the Chenango River and the Sangerfield River are most vulnerable to ice jams.

### 5.9.3 *Historical Hazard Occurrences and Damage Estimates*

The U.S. Army Corps of Engineers (USACE) Cold Regions Research and Engineering Laboratory (CRREL) reports no specific ice jam events for the Village of Earlville.

### 5.9.4 *Future Potential Impacts*

The Village's overall vulnerability for an ice jam remains low. Properties along the Chenango River and Sangerfield River are vulnerable to ice jams, but historically, the Village has not experienced significant damages related to this hazard. The frequency and magnitude of ice jam events may increase due to climate change.

## 6. National Flood Insurance Program

Long-term mitigation of potential flood impacts can be best achieved through comprehensive floodplain management regulations and enforcement at a local level. The National Flood Insurance Program (NFIP), regulated by FEMA, aims to reduce the impact of flooding on private and public structures by providing affordable insurance for property owners. The program encourages local jurisdictions to adopt and enforce floodplain management regulations in order to mitigate the potential effects of flooding on new and existing infrastructure (FEMA, 2015).

Communities that participate in the NFIP adopt floodplain ordinances. If an insured structure incurs damage costs that are over 50% of its market value, the owner must comply with the local floodplain regulations when repairing or rebuilding the structure. A structure could be rebuilt at a higher elevation, or it could be acquired and demolished by the municipality or relocated outside of the floodplain. Insured structures that are located within floodplains identified on FEMA's Flood Insurance Rate Maps (FIRMs) may receive payments for structure and content losses if impacted by a flood event.

The NFIP and other flood mitigation actions are important for the protection of public and private property and public safety. Flood mitigation is valuable to communities because it:

- Creates safer environments by reducing loss of life and decreasing property damage;
- Allows individuals to minimize post-flood disaster disruptions and to recover quicker (homes built to NFIP standards generally experience less damage from flood events, and when damage does occur, the flood insurance program protects the homeowner's investment); and
- Lessens the financial impacts on individuals, communities, and other involved parties (FEMA, 2015).

The Village of Earlville currently participates in the NFIP (community ID 360397), and its current FIRM(s) became effective on 11/26/2010. The Village joined the NFIP on 6/5/1985. NFIP loss claims data were requested from FEMA and a response is pending. There are no repetitive loss properties in the Village. More current repetitive loss data from FEMA is pending. The Village will continue to comply with the NFIP by enforcing floodplain management requirements and regulating new development in Special Flood Hazard Areas, among other required duties.

## 7. Mitigation Strategy and Prioritization

### 7.1 Past, Completed, and Ongoing Initiatives

The Village proposed two mitigation actions in the 2017 Madison County HMP, and the status of each action is summarized in Table 8, below. Both of the Village's 2017 mitigation actions were re-included for the 2022 update.

<b>Table 8. Status of 2017 Mitigation Actions Village of Earlville</b>				
<b>Project Name</b>	<b>Description</b>	<b>Hazard(s) Mitigated</b>	<b>Lead Agency</b>	<b>Status</b>
Drainage improvements for Preston & Clyde Streets	Design and install drainage and pump system to capture and remove stormwater from Preston & Clyde Streets, in the Village of Earlville.	Flood	Village of Earlville DPW	Not progressed; re-included in HMP update
Standby Generator for Fire Department	Equip the fire station with a propane fueled standby generator and automatic transfer switch. This would support fire department operations, especially during prolonged power outages.	All	Earlville Village Board	Not progressed; re-included in HMP update

## 7.2 Proposed Mitigation Actions

The Village updated and re-included their mitigation actions from 2017 for the HMP update. These actions are described in Table 9, below and on worksheets included in Attachment A.

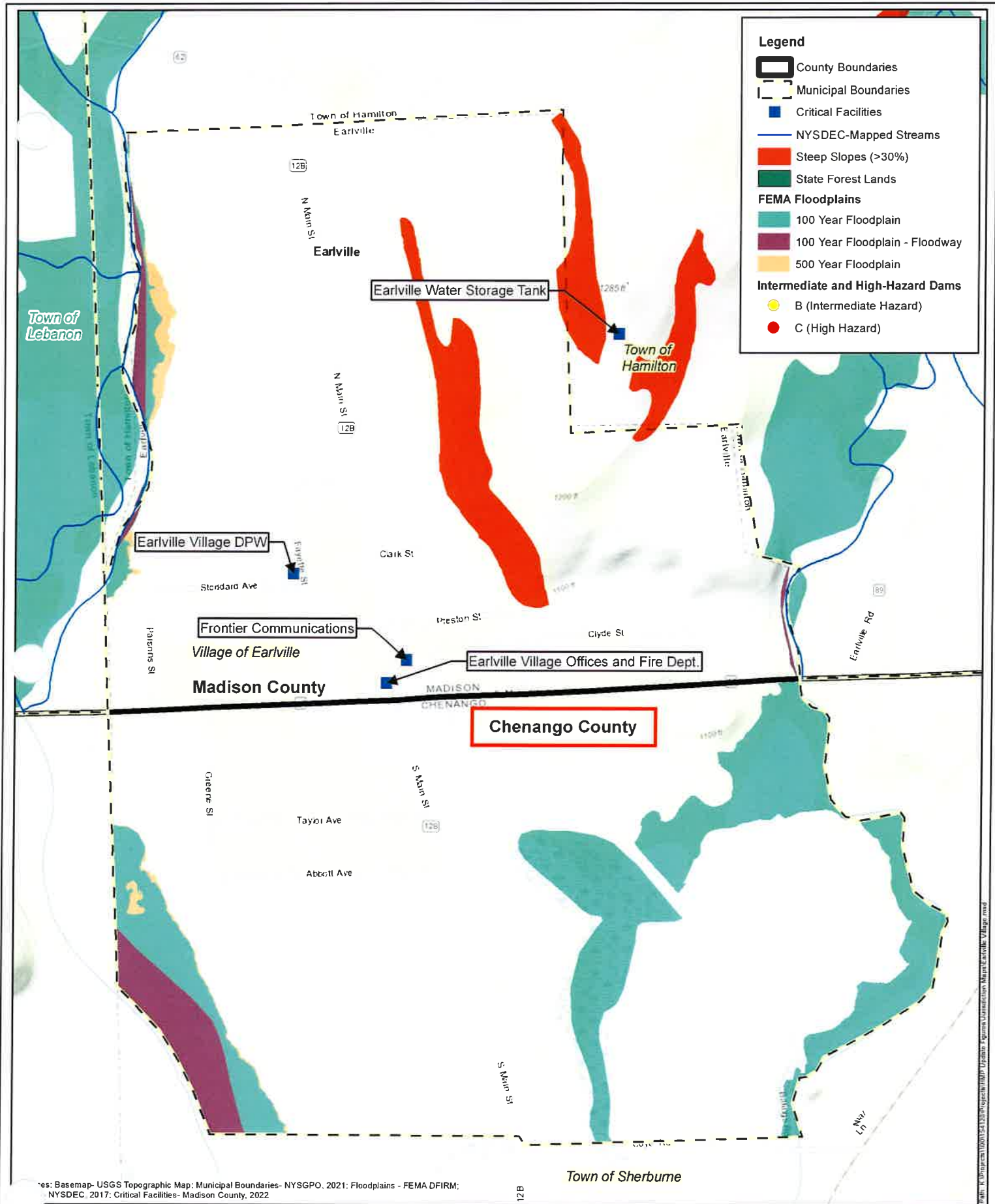
Table 9. Proposed Hazard Mitigation Actions Village of Earlville									
Action ID	Mitigation Action	Hazard(s) Mitigated	Implementing Agencies (Lead* & Support)	Planning Mechanism	Timeframe	New or Existing Development	Estimated Cost	Funding Source(s)	Priority
Earlville 1	Install Standby Generator at Village Office/Fire Department and Water Chlorination Station	All	Village of Earlville Board	None	1 year	New	\$55,000	Village Budget, USDA RD - Community Facilities, FEMA- BRIC	1
Earlville 2	Clyde Street Drainage Improvements	Flood	Village of Earlville DPW	None	1 year	New	\$75,000	Village Budget, USDA RD, NYSEFC - CWSRF, FEMA- BRIC	2

## 7.3 Cost-Benefit Analysis

Each of the Village's proposed mitigation actions were evaluated and prioritized using the STAPLEE cost-benefit analysis described in Section 7.2.3 of the main body of the plan. The Village's STAPLEE worksheet is provided in Attachment A. The STAPLEE analysis considers the following lenses of evaluation: social, technological, administrative, political, legal, economic, and environmental. It also considers the level of overall costs and benefits of the action.

## **Attachment A**

### **Hazard Vulnerability Figure, Mitigation Action Worksheets and STAPLEE Table**



Basemap- USGS Topographic Map; Municipal Boundaries- NYSGPO, 2021; Floodplains - FEMA DFIRM; NYSDEC, 2017; Critical Facilities- Madison County, 2022

**Barton & Loguidice**



0 250 500 1,000 Feet

Village of Earlville

**Hazard Vulnerability**

Madison County

July 2022

New York

Figure

1

Project

No.

154.120

# Madison County HMP Update Mitigation Action Worksheet

**Jurisdiction:** Village of Earlville

Mitigation Action	
<b>Project ID:</b>	Earlville 1
<b>Project Name:</b>	Install Standby Generator at Village Office/Fire Department and Water Chlorination Station
Risk/Vulnerability	
<b>Hazard of Concern:</b>	All
<b>Description of the Problem:</b>	The Village Office/Fire Department and Water Chlorination Station currently lack backup power. Standby backup power is needed at these facilities in case of power outage. These facilities provide critical community services that could be interrupted during a power outage.
Proposed Action	
<b>Description of the Solution:</b>	Install standby generators in the Village Office/Fire Dept and Water Chlorination Station so that they can continue operating during a power outage.

Is this project related to a Critical Facility? ☒ Yes ☐ No

(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater)

Level of Protection:	High	Estimated Benefits (losses avoided):	Improved continuity of operations
Useful Life:	50 years		
Estimated Cost:	\$55,000		

Plan for Implementation			
Priority (High, Medium, Low):	High	Responsible Organization:	Earlville Village Board, Village DPW
Desired Timeframe for Implementation:	1 year	Potential Funding Sources:	Village Budget, USDA RD - Community Facilities, FEMA - BRIC
Estimated Time Required to Implement:	2 months	Local Planning Mechanisms to be used in Implementation, if any:	None

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	No change from existing conditions
	Purchase a portable generator for use at multiple facilities	\$30,000	More flexible options for use but requires additional coordination for use and may not power entire facility/limitations
	Add on-demand generator for both facilities	\$55,000	Best protection for all facilities

Progress Report (for Plan Maintenance)	
Date of Status Report:	
Summary of Progress:	
Evaluation of the Problem and/or Solution:	

## Madison County HMP Update Mitigation Action Worksheet

**Jurisdiction:** Village of Earlville

Mitigation Action	
Project ID:	Earlville 2
Project Name:	Clyde Street Drainage Improvements
Risk/Vulnerability	
Hazard of Concern:	Flood
Description of the Problem:	Drainage issues along Clyde street during heavy precipitation events. Basements are known to frequently flood in this area.
Proposed Action	
Description of the Solution:	Installation of a closed drainage system from Clyde Street to North Main Street (approximately 1,000 linear feet). The new drainage system would connect to the existing closed drainage system in the Village.

Is this project related to a Critical Facility? ☐ Yes ☒ No  
*(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater)*

Level of Protection:	High	Estimated Benefits (losses avoided):	Decreased flooding issues along Clyde Street.
Useful Life:	50 years		
Estimated Cost:	\$75,000		

Plan for Implementation			
Priority (High, Medium, Low):	Medium	Responsible Organization:	Village DPW, Madison County
Desired Timeframe for Implementation:	1 year	Potential Funding Sources:	Village Budget, USDA RD, NYSEFC - CWSRF, FEMA - BRIC
Estimated Time Required to Implement:	18 months	Local Planning Mechanisms to be used in Implementation, if any:	None

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	No change from existing conditions
	Complete stormwater drainage study	\$5,000	Not a comprehensive solution; problem area already targeted
	Installation of a closed drainage system	\$75,000	Improved drainage and reduced flooding along Clyde Street.

Progress Report (for Plan Maintenance)	
Date of Status Report:	
Summary of Progress:	
Evaluation of the Problem and/or Solution:	