

Town of Cairo Climate Smart Planning

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Climate Smart Resiliency Planning Tool is a checklist to identify gaps in a community's planning process.

The Climate Smart Resiliency Planning Tool was used to evaluate opportunities for the Town of Cairo to improve its community's resilience to flooding and climate change. The Planning Tool reviews many long and short-term aspects of storm and climate change preparedness by reviewing Village and County planning documents, activities and management. Documents were reviewed, and municipal staff members were consulted in the process of completing the assessment. The assessment and recommendations have been shared through meetings and correspondence with the Town Board and municipal staff.

Municipal staff engaged in the Town of Cairo Climate Smart Planning assessment:

Mary Jo Cord, Town Board Member

John Coyne, Town Supervisor

Marrienne Baldwin, Supervisor's Clerk

The completed assessment and recommendations highlight areas of opportunity for the Town of Cairo to integrate flood and climate change preparedness into its municipal operations and planning.

Areas of Strength

- The Town of Cairo adopted the Greene County Hazard Mitigation and Resilience Plan, which:
 - Successfully identifies and prioritizes climate hazards.
 - Describes the damage and cost of previous storms and describes past mitigation efforts.
 - Spatially defines Cairo's infrastructure; such as schools, roads, water towers, police stations, etc. in relation to landslide susceptibility, floodplains, and flood hazard areas.
- The Town is planning to implement flood mitigation actions. This includes a proposed study to determine the size of replacement for an undersized culvert on Moorehouse Road and the feasibility of elevating the road. This action was identified in the FEMA approved Greene County Hazard Mitigation and Resilience Plan.
- Flood resilience is incorporated into zoning and subdivision regulations to ensure low densities along stream corridors promoting waterfront open space and recreation.

- The Town is part of the National Flood Insurance Program and tracks riverine repetitive loss properties within the community.
- Measures have been taken to prepare for climate related emergencies:
 - Both a Disaster Shelter and an Emergency Operations Center are located within the town.
 - Weather related threats are relayed to the community using multiple forms of communication. Residents may sign up to receive town notifications via text message.
 - The Town website encourages residents to sign up for NYAlert¹.
 - The Town is part of the Greene County Emergency Operations Plan.

Areas of Opportunity

- Consider participating in the Climate Smart Communities (CSC) certification program². Climate Smart Communities certification grants the Town increased access to funding opportunities for implementation of projects. The Town has already addressed some of the certification requirements, including the Climate Smart Resiliency Planning Tool **CSC PE7 Action: Evaluate Policies for Climate Resilience (6pts)**.
- The Town of Cairo Comprehensive Plan included existing plans, studies, reports, and technical information and involved a broad base of the community in its planning process. The plan, however, was completed in 2009 and could be reviewed and updated. Updates could include making recommendations to reduce hazard vulnerability through land-use planning.
- The adoption of the Greene County Hazard Mitigation and Resilience Plan makes the Town of Cairo eligible to receive FEMA grants such as the Flood Mitigation Assistance Program, Hazard Mitigation Grant Program, and the Building Resilient Infrastructure and Communities (BRIC) program (formerly the Pre-Disaster Mitigation Grant Program) for completion of hazard mitigation actions.
- Greene Land Trust developed a county-wide Natural Resources Inventory³ **CSC PE6 Action: Natural Resources Inventory (8-10 pts)**. This could be a useful tool for the Town of Cairo to create an open space/natural resource management plan that incorporates climate resiliency measures. This plan could coordinate with the New York State Open Space Plan⁴ **PE7 Action: Conservation of Natural Habitats (4-16 pts)**.
- The Town is developing a Flood Preparedness Guide for Residents and Businesses in partnership with Cornell Cooperative Extension that provides information about expected inundation areas, evacuation routes, location of shelters, and location of pet shelters prior to the threat of a storm. Consider adding a webpage to the Town website for floodplain information and disaster preparedness and including this document.

¹ NY-Alert is a New York State service that alerts citizens of hazards and emergencies via email or telephone. <https://nyalert.gov/>

² Climate Smart Communities Portal: <https://climatesmart.ny.gov/> Recommendations that correspond with CSC actions are in **bold**.

³ Greene Land Trust Natural Resource Inventory information: <https://www.greenelandtrust.org/projects/nri-and-conservation-priorities>

⁴ New York State Open Space Plan: <http://www.dec.ny.gov/lands/317.html>

Recommendations

The following opportunities emerged under each of the sections of the Climate Smart Planning assessment:

Section 2- Vulnerability and Risk Assessment

- Train municipal employees in risk mapping tools such as lake, and overland surges, shoreline change analysis, cumulative risk assessments, HAZUS-MH, etc.
- Conduct a full vulnerability assessment **CSC PE7 Action: Climate Vulnerability Assessment (4-16 pts)** detailing the magnitude of consequences associated with current and future climate hazards. Include how these events will effect internal operations, people, public health, the environment, the economy, and capital and operating costs. Consider using the Department of the State’s Asset Inventory Worksheet and Risk Assessment Tool⁵. Ensure that vulnerability and risk assessments are shared with all relevant village officials and emergency manager.
- Estimate future financial losses that may result from riverine flooding and incorporate in plans or reports.
- Conduct a Build-Out Analysis, compared to the extent of storm surge and sea-level rise scenarios. This could be carried out using zoning codes.

Section 3- Public Outreach and Engagement

- Consider installing high water mark signs at public locations.
- Take steps to ensure that information is shared using multilingual and culturally sensitive approaches.
- Inform residents about available disaster resources though Town website links, television, radio, social media, etc. **CSC PE9 Action: Social Media (3pts)**. Resources could include:
 - ASPCA’s disaster preparedness steps for domesticated animals⁶.
 - FEMA’s “Are You Ready” guide⁷.
 - FEMA’s coastal construction manual⁸.
 - Provide residents with guidance on the development of personal and family evacuation plans or what to include in emergency or evacuation kits (FEMA’s Ready.gov checklist).
- Consider making floodplain makes available to property owners and businesses.

⁵ Department of the State’s Asset Inventory Worksheet and Risk Assessment Tool: <https://stormrecovery.ny.gov/community-regions/udson-valley-and-westchester>

⁶ ASPCA Disaster Preparedness Guide: <https://www.aspc.org/pet-care/general-pet-care/disaster-preparedness>

⁷ FEMA “Are You Ready” Guide: https://www.fema.gov/pdf/areyouready/areyouready_full.pdf

⁸ FEMA Coastal Construction Manual: <https://www.fema.gov/media-library/assets/documents/3293?id=1671>

Section 4- Integration of Municipal Plans

- Ensure that the Town budgets include adequate funds for costs related to adapting infrastructure for greater flood and projected sea-level rise resiliency. Incorporating adaptation consideration into an asset management or capital improvement plan is an ideal method to build resiliency into routine maintenance and upgrades. **CSC PE8 Action: Green Economic Development Plans (4 pts).**
- Consider adopting the International Building Code or American Society of Civil Engineers (ASCE) standards that promote flood resistant buildings.
- Create a floodplain management and stormwater management plans in addition to the local ordinances that are already in place. The floodplain management plan could be incorporated in the comprehensive plan and
- The State of New York has regulations to protect wetlands that are 12.4 acres or larger. Consider going beyond the Land Conservation Overlay and adopting an ordinance to protect wetlands that are less than 12.4 acres more effectively, with a minimum buffer of 100ft. Look to Section 2.1 Wetland Protection of the New York State Department of State Model Local Laws to Increase Resilience⁹ document for more guidance.
- Define a plan for transportation and other needs of vulnerable populations (elderly, special needs, disabled etc.) in event of an emergency.

Section 5- Disaster Preparedness and Recovery

- Consider participating in the National Weather Service Storm Ready Community¹⁰ program which helps communities take a proactive approach to prepare for extreme weather and natural disasters.
- Take advantage of programs like FEMA's Community Emergency Response Team (CERT)¹¹ training to better prepare for disasters.
- Establish a town-specific emergency recovery plan and/or flood response that includes flooding. The plan could:
 - Identify first responders, a hierarchy of authority during emergencies, and contacts for operators of municipal facilities. Include coordination and communication among critical stakeholders.
 - Include steps for emergency protective measure like sandbagging, erecting warning devices, and search and rescue.
 - Create an organizational framework to conduct a preliminary damage assessment.
 - Identify the emergency operations center and storm shelters outside of flood-hazard areas that have backup power and are designed to withstand high winds.

⁹ https://dos.ny.gov/system/files/documents/2020/09/model_local_laws_to_increase_resilience.pdf

¹⁰ National Weather Service Storm Ready Community Program: <https://www.weather.gov/stormready/>

¹¹ CERT program is offered by FEMA to train volunteers in basic response skills to assist in community disaster relief. <https://www.fema.gov/community-emergency-response-teams>

- Establish an evacuation plan that identifies a timeframe, multiple evacuation routes, and portions of the community with special circumstances or needs (schools, nursing homes, shelters, and those without personal transportation).

Section 6- Hazard Mitigation Implementation

- Provide training in retrofitting flood-prone residential buildings and NYDEC Post Flood Stream Intervention training for appropriate staff.
- Consider utilizing tools such as transfer/purchase of development rights, rolling easement, or buyouts of vulnerable properties to manage development in hazard prone areas.
- Support land-acquisition programs to purchase land conservation easements in hazard-prone areas. **CSC PE7 Action: Restoration of Floodplains and Riparian Buffers (2 pts).**
- Create a Climate Action Plan to enact measures and polices to reduce greenhouse gas emissions and increase the community's resilience to climate change. **CSC PE2 Action: Government Operations Climate Action Plans (12-16 pts) or Community Climate Action Plan (16 pts).**
- Engage in shoreline, wetland, or riparian buffer restoration and protection by encouraging sustainable enhanced methods of shoreline protection encouraged through incentives or regulation. **CSC PE7 Riparian Buffers (2-14 pts) or PE7 Action: Nature-based Shoreline Protection (2-12 pts).**
- Take part in FEMA's Community Rating System¹² **PE7 Action: National Flood Insurance Program Community Rating System (3-9 pts).**

Potential Funding Sources

- DEC Climate Smart Communities Grant Program: <https://www.dec.ny.gov/energy/109181.html>
- DEC Grant Applications: <https://www.dec.ny.gov/pubs/grants.html>
- DEC Hudson River Estuary Program Grants: <https://www.dec.ny.gov/lands/5091.html>
- FEMA Hazard Mitigation Grant Program: <https://www.fema.gov/hazard-mitigation-grant-program>
- FEMA Building Resilient Infrastructure and Communities (BRIC): <https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities>
- FEMA Flood Mitigation Assistance Grant Program: <https://www.fema.gov/flood-mitigation-assistance-grant-program>
- HUD Community Development Block Grants: https://www.hud.gov/program_offices/comm_planning/communitydevelopment/programs
- NYS Department of State Grants (including Local Waterfront Revitalization Program): <https://www.dos.ny.gov/funding/>

¹² FEMA's Community Rating System is a voluntary incentive program that encourages community floodplain management that exceeds the minimum National Flood Insurance requirements. <https://fema.gov/national-flood-insurance-program-community-rating-system>

Contact Us

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