



SECTION 6. MITIGATION STRATEGIES

This section presents mitigation strategies for Livingston County to reduce potential exposure and losses identified as concerns in the Risk Assessment portion of this plan. The Steering Committee reviewed the Risk Assessment

to identify and develop these mitigation actions, which are presented herein.

This section includes:

1. Background and Past Mitigation Accomplishments
2. General Mitigation Planning Approach
3. Review and Update of Mitigation Goals and Objectives
4. Capability Assessment
5. Mitigation Strategy Development and Update

Hazard mitigation reduces the potential impacts of, and costs associated with, emergency and disaster-related events. Mitigation actions address a range of impacts, including impacts on the population, property, the economy, and the environment.

Mitigation actions can include activities such as: revisions to land-use planning, training and education, and structural and nonstructural safety measures.

6.1 BACKGROUND AND PAST MITIGATION ACCOMPLISHMENTS

In accordance with the requirements of the Disaster Mitigation Act of 2000 (refer to Section 1 for more detail on DMA 2000), a discussion regarding past mitigation activities and an overview of past efforts is provided as a foundation for understanding the mitigation goals, objectives, and activities outlined in this plan update. Through previous and ongoing hazard mitigation activities, the county has demonstrated that it is proactive in protecting its physical assets and citizens against losses from natural hazards. Examples of previous and ongoing actions and projects include the following:

- The Livingston County Planning Department hosts the LET'S Plan! Training Series on an annual basis to increase public and municipal awareness of land use laws, subdivision laws, and zoning.
- All municipalities participating in this plan participate in the NFIP, which requires adoption of FEMA floodplain mapping and certain minimum construction standards for building within the floodplain.
- The county and municipalities have implemented mitigation actions to protect critical facilities and infrastructure throughout the county. These actions include installation of backup power generation and enhancing security systems.
- The county developed initial maps depicting utility lines to give emergency crews immediate access during emergencies. The maps are being updated on a regular basis.
- Emergency drills and exercises are conducted at schools.
- The county established evacuation plans for each village and town. The plans include considerations for pets and individuals with access and functional needs. Evacuation plans and routes are maintained in the County EOP.
- Regular maintenance of sewer lines includes installation of check valves and upgrading infrastructure as needed.
- The county Planning Department maintains a countywide geographic information system (GIS) that allows the county and municipalities to share data during an emergency.
- The county has implemented a dialogic notification system (Reverse 911) to notify residents of an emergency.
- The county facilitated the development of the original Livingston County Multi-Jurisdictional Hazard Mitigation Plan. The current planning process represents the regulatory 5-year plan update process,



which includes participation of the 26 municipalities in the county, along with key county and regional stakeholders.

- Reports, plans, and studies relating to or including information on natural hazards or natural hazard policies affecting Livingston County have been reviewed and incorporated into this plan update as appropriate, as discussed in Section 3 (Planning Process) and References.
- The most current flood insurance rate maps (FIRMs) for municipalities within Livingston County range from 1978 to 2010.
- The Livingston County Planning Department
 - Provides technical assistance on land use regulations, economic development, and environmental protection to municipalities
 - Provides staff assistance to 5 committees: the Agriculture and Farmland Protection Board, the Conesus Lake Watershed Council, the County Planning Board, the Environmental Management Council, the Transportation Advisory Committee
 - Assists county offices with GIS mapping, research, and analysis
 - Administers grants, creates and develops plans for Capital Improvement
 - Provides land use training through the “LET’S Plan!” training program
- Livingston County, working along with the inclusive municipalities, conducts and facilitates community and public education and outreach to include, but not be limited to, the following to promote and effect natural hazard risk reduction:
 - Contact each municipality to encourage them to provide and maintain links to the Livingston County HMP website (this was done during update).
 - Work with regional agencies, neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.
- Livingston County works to promote awareness and use of “Hyper-Reach”, an emergency notification system that allows the Emergency Communications Center to alert residents to emergency situations via telephone call, text message, or email. The county also provides emergency information and road closures on their website.

6.2 GENERAL MITIGATION PLANNING APPROACH

The overall approach used to update local hazard mitigation strategies for the county are based on FEMA and NYS regulations and guidance regarding local mitigation plan development, including:

- DMA 2000 regulations, specifically 44 CFR 201.6 (local mitigation planning)
- FEMA *Local Mitigation Planning Handbook*, March 2013
- FEMA *Local Mitigation Plan Review Guide*, October 1, 2011
- FEMA *Integrating Hazard Mitigation into Local Planning*, March 1, 2013
- FEMA *Plan Integration: Linking Local Planning Efforts*, July 2015
- FEMA *Mitigation Planning How-To Guide #3, Identifying Mitigation Actions and Implementing Strategies* (FEMA 386-3), April 2003
- FEMA *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards*, January 2013
- NYS DHSES *New York State Hazard Mitigation Planning Standards*, 2017
- NYS DHSES *New York State Hazard Mitigation Planning Standards Guide*, 2017

The mitigation strategy update approach includes the following steps that are further detailed in later subsections of this section:

- Section 6.3 - Review and update of mitigation goals and objectives



- Section 6.4 - Identify mitigation capabilities and evaluate their capacity and effectiveness to mitigate and manage hazard risk
- Section 6.5 - Prepare an implementation strategy, including:
 - Identification of progress on previous county and local mitigation strategies
 - Development of updated county and local mitigation strategies
 - Prioritization projects and initiatives in the updated mitigation strategy

6.3 REVIEW AND UPDATE OF MITIGATION GOALS AND OBJECTIVES

FEMA defines **Goals** as general guidelines that explain what should be achieved. Goals are usually broad, long-term, policy statements, and represent a global vision.

FEMA defines **Objectives** as strategies or implementation steps to attain mitigation goals. Unlike goals, objectives are specific and measurable, where feasible.

FEMA defines **Mitigation Actions** as specific actions that help to achieve the mitigation goals and objectives.

This section documents the efforts to develop hazard mitigation goals and establish objectives to reduce or avoid long-term vulnerabilities to the identified hazards.

6.3.1 Goals and Objectives

According to CFR 201.6(c)(3)(i): “The hazard mitigation strategy shall include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.” The mitigation goals were developed based on the risk assessment results, discussions, research, and input from the committee, existing authorities, polices, programs, resources, stakeholders, and the public. The Steering Committee reviewed the 2015 goals and objectives and made revisions for the 2022 update based on the risk assessment results, discussions, research, and input from amongst the committee, existing authorities, polices, programs, resources, stakeholders and the public. For the purposes of this plan, goals and objectives are defined as follows:

Goals are general guidelines that explain what is to be achieved. They are usually broad, long-term, policy-type statements and represent global visions. Goals help define the benefits that the plan is trying to achieve. The success of the plan, once implemented, should be measured by the degree to which its goals have been met (that is, by the actual benefits in terms of hazard mitigation).

Objectives are short-term aims which, when combined, form a strategy or course of action to meet a goal. Unlike goals, objectives are a stand-alone measurement of the effectiveness of a mitigation action, rather than as a subset for a goal. The objectives also are used to help establish priorities.

During the 2022 plan update process, the Steering Committee reviewed the goals and objectives established in the 2015 HMP. These goals and objectives were reviewed in consideration of the hazard events and losses since the 2015 plan, the updated hazard profiles and vulnerability assessment, the goals and objectives established in the New York State 2019 HMP, county and local risk management plans, as well as direct input on how the county and municipalities need to move forward to best manage their hazard risk. Amendments include additions/edits to goals and/or objectives to express the Planning Partnership’s interests in integrating this plan with other planning mechanisms/programs, and to support mitigation through the protection and preservation of natural systems, including particular reference to certain goals and objectives in the NYS 2019 HMP update, as identified in the table below.

As a result of this review process, the goals and objectives for the 2022 update have been amended, as presented in Table 6-1.



Table 6-1. Livingston County Hazard Mitigation Plan Goals and Objectives

Goals	Objectives
Goal 1: Protect life, property, and critical infrastructure from hazard impacts.	Objective 1.1 – Retrofit critical facilities and community assets to protect against hazard impacts.
	Objective 1.2 – Work with residents and business owners to make their structures more hazard resistant.
	Objective 1.3 – Enhance stormwater management infrastructure.
	Objective 1.4 – Ensure that critical facilities can continue to function during and after hazard impacts.
	Objective 1.5 – Acquire, retrofit, or relocate structures from hazard-prone areas.
	Objective 1.6 – Encourage residents and business owners to insure their property against hazard impacts, including through flood insurance through the National Flood Insurance Program (NFIP).
Goal 2: Reduce the risk of hazards on life, property, and the environment.	Objective 2.1 – Develop and/or update local regulations based on current information and best practices to help prevent hazard impacts.
	Objective 2.2 – Maintain natural waterways and drainage systems to reduce the impacts of hazards.
Goal 3: Educate the public, officials, and other stakeholders about the hazards they face and what can be done to mitigate hazard impacts.	Objective 3.1 – Ensure that local officials attend current training on regulatory issues, best practices, and resources available to address hazards.
	Objective 3.2 – Educate individuals throughout the County on the hazards they face and what property protection measures they can take to lessen the impact of hazards.

6.4 CAPABILITY ASSESSMENT

According to FEMA’s *Mitigation Planning How-To Guide #3*, a capability assessment is an inventory of a community’s missions, programs, and policies and an analysis of its capacity to carry them out. This assessment is an integral part of the planning process. The assessment process enables identification, review, and analysis of current local and state programs, policies, regulations, funding, and practices that could either facilitate or hinder mitigation.

During the original planning process, the county and participating jurisdictions identified and assessed their capabilities in the areas of existing programs, policies, and technical documents. By completing this assessment, each jurisdiction learned how or whether they would be able to implement certain mitigation actions by determining the following:

- Limitations that may exist on undertaking actions
- The range of local and/or state administrative, programmatic, regulatory, financial and technical resources available to assist in implementing their mitigation actions
- Actions deemed infeasible as they are currently outside the scope of capabilities
- Types of mitigation actions that may be technically, legally (regulatory), administratively, politically, or fiscally challenging or infeasible
- Opportunities to enhance local capabilities to support long term mitigation and risk reduction.

During the plan update process, all participating jurisdictions were tasked with developing or updating their capability assessment, paying particular attention to evaluating the effectiveness of these capabilities in supporting hazard mitigation, and identifying opportunities to enhance local capabilities.



County and municipal capabilities in the Planning and Regulatory, Administrative and Technical, and Fiscal arenas are provided in the Capability Assessment section of each jurisdictional annex (Section 9). Within each annex, participating jurisdictions identified how they have integrated hazard risk management into their existing planning, regulatory and operational/administrative framework (“integration capabilities”), and how they intend to promote this integration (“integration actions”). A further summary of these continued efforts to develop and promote a comprehensive and holistic approach to hazard risk management and mitigation is presented in Section 7 (Plan Maintenance).

A summary of the various federal, state, county, and local planning and regulatory, administrative and technical, and fiscal programs available to promote and support mitigation and risk reduction in Livingston County are presented below.

6.4.1 Planning and Regulatory Capabilities - County and Local

Municipal Land Use Planning and Regulatory Authority

The county and municipalities have various land use planning mechanisms that can be leveraged to mitigate flooding and support natural hazard risk reduction. Specific county and local planning and regulatory capabilities are identified in their jurisdictional annexes in Section 9. These include but are not limited to comprehensive plans, flood damage prevention ordinances, local codes and regulations, stormwater regulations, and municipal level plans. A list of plans reviewed is provided in Section 3 (Planning Process).

The Livingston County Planning Department, in coordination with the Genesee/Finger Lakes Regional Planning Council (G/FLRPC), provides a wide range of planning services to support the county and its communities. The Livingston County Planning Department and G/FLRPC provide land use and comprehensive planning, including the development of the county’s comprehensive land use plan, in addition to the following services:

- Provision of training and planning information for municipal planners and the public through the Genesee/Finger Lakes Regional Planning Council
- Farmland Protection planning, including administering the Agricultural Districts program, sitting on the County Legislature’s Agriculture & Farmland Protection Board, and overseeing the Agricultural and Farmland Protection Plan for Livingston County
- Participating on study and advisory committees as a member agency of the Genesee Transportation Council (GTC), which is responsible for multi-agency transportation planning and funding coordination for Livingston County
- Collection, analysis, and distribution of land use data, including U.S. Census data as a NYS Data Center Affiliate
- Special topic planning projects on behalf of Livingston County and its municipalities
- Technical assistance to county departments and to the towns and villages
- GIS mapping services to county departments and municipalities.

Staff from the Livingston County Office of Emergency Management and the Livingston County Planning Department provided leadership for this HMP update planning effort. In addition, they served on the Steering Committee and provided continuous support for the implementation of mitigation projects and mitigation educational outreach and serves as a resource to the county and municipalities.

Section 239 of New York State General Municipal Law (GML) requires the referral of certain local planning actions to the County Planning Board for the examination of possible inter-municipal impacts. The Livingston County Planning Board operates under New York State General Municipal Law (§239 l, m, and n) to advise local boards on the potential intermunicipal or countywide impact of local land use decisions. The Planning



Board uses the Livingston County comprehensive plan to direct recommendations on municipal land use referrals and to review proposed county capital improvement projects.

National Flood Insurance Program (NFIP) and Flood Damage Prevention

As it is a federal program, the NFIP is described in Section 6.4.2, below.

All municipalities in Livingston County actively participate in the NFIP. As of July 2021, there were 258 NFIP policies in Livingston County. There have been 134 claims made, totaling \$625,847 for damage to structures and contents. Further details on the county's flood vulnerability may be found in the Flood hazard profile in Section 5.4.3. The numbers of Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties are unknown, as the data was not provided by FEMA. The 2015 HMP stated that there was only one RL property in the county, a 2-4 family residential property in the Village of Dansville. However, updated information on specific locations of RL and SRL properties was not made available from FEMA for this plan update, so the county is unable to provide a current breakdown of the RL properties by occupancy.

Municipal compliance with the NFIP is described in each of the jurisdictional annex in Section 9. The county's municipalities have been compliant with the NFIP, but municipal flood damage prevention capabilities are generally low. To enhance their flood damage prevention programs and enhance compliance with the NFIP in the future, each municipality has actions in their mitigation strategies to update their flood damage prevention ordinances to incorporate two feet of freeboard, and to ensure that their floodplain administrators complete training on floodplain management and the NFIP. In addition, Livingston County's mitigation strategy (see Section 9.1) includes actions to facilitate a countywide FIRM update, and to coordinate with each municipality to examine and enhance their flood damage prevention programs and compliance with the NFIP in the future.

Emergency and Evacuation Plans

The Livingston County Office of Emergency Management (OEM) coordinates all emergency management activities in the county, including mitigation, preparedness, response, and recovery. The OEM works collaboratively with many other agencies and organizations, which enables the county to better protect life and property during disasters and emergencies. The OEM maintains the Livingston County Comprehensive Emergency Management Plan (CEMP) which is a comprehensive approach to emergency management. The CEMP is an all-hazards plan that outlines how the county will efficiently and effectively manage emergencies and disaster situations. The CEMP provides protocol for sheltering and evacuation of residents in the event of an emergency.

Local Waterfront Revitalization Program

The Waterfront Revitalization of Coastal Areas and Inland Waterways Act offers local governments the opportunity to participate in the state's Coastal Management Program (CMP) on a voluntary basis by preparing and adopting a Local Waterfront Revitalization Program (LWRP), providing more detailed implementation of the state's CMP through use of existing broad powers, such as zoning and site plan review (New York State Division of Planning 2018).

When an LWRP is approved by the New York State Secretary of State, state agency actions are required to be consistent with the approved LWRP to the maximum extent practicable. When the federal government concurs with the incorporation of an LWRP into the CMP, federal agency actions must be consistent with the approved addition to the CMP. Title 19 of NYCRR Parts 600, 601, 602, and 603 provide the rules and regulations that implement each of the provisions of the Waterfront Revitalization of Coastal Areas and Inland Waterways Act including but not limited to the required content of an LWRP, the processes of review and approval of an LWRP, and LWRP amendments (New York State Division of Planning 2018).



A LWRP consists of a planning document prepared by a community, and the program established to implement the plan. An LWRP may be comprehensive and address all issues that affect a community's entire waterfront, or it may address the most critical issues facing a significant portion of its waterfront. An approved LWRP reflects community consensus and provides a clear direction for appropriate future development. It establishes a long-term partnership among local government, community-based organizations, and the State. Also, funding to advance preparation, refinement, or implementation of Local Waterfront Revitalization Programs is available under Title 11 of the New York State Environmental Protection Fund Local Waterfront Revitalization Program (EPF LWRP) among other sources (New York State Division of Planning 2018).

Any village, town, or city located along the state's coast or designated inland waterway can prepare a new or amend an existing Local Waterfront Revitalization Program. Municipalities are encouraged to address local revitalization issues in a broader context, aligned with regional economic development strategies and regional resource protection and management programs (New York State Division of Planning 2018).

Per the NYS Department of State website, as of the date of this HMP update, there are no approved LWRP plans in Livingston County. Refer to https://www.dos.ny.gov/opd/programs/WFRevitalization/LWRP_status.html for a list of all approved LWRPs.

6.4.2 Planning and Regulatory Capabilities – State and Federal

National Flood Insurance Program (NFIP)

The U.S. Congress established the NFIP with the passage of the National Flood Insurance Act of 1968 (FEMA's 2002 National Flood Insurance Program). The NFIP is a Federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damage. The Flood Hazard Profile in Section 5.4.3 provides information on recent legislation related to reforms to the NFIP.

There are three components to the NFIP: flood insurance, floodplain management, and flood hazard mapping. Communities participate in the NFIP by adopting and enforcing floodplain management ordinances to reduce future flood damage. In exchange, the NFIP makes federally backed flood insurance available to homeowners, renters, and business owners in these communities. Community participation in the NFIP is voluntary. Flood insurance is designed to provide an alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods. Flood damage in the United States is reduced by nearly \$1 billion each year through communities implementing sound floodplain management requirements and property owners purchasing flood insurance. Additionally, buildings constructed in compliance with NFIP building standards suffer approximately 80 percent less damage annually than those not built in compliance (FEMA, 2008).

Municipal participation in and compliance with the NFIP is supported at the federal level by FEMA Region II and the Insurance Services Organization (ISO), and at the state-level by the New York State Department of Environmental Conservation (NYSDEC) and New York State Division of Homeland Security and Emergency Services (NYS DHSES). Additional information on the NFIP program and its implementation throughout the county is provided in the flood hazard profile in Section 5.4.3.

The state and municipalities within it may adopt higher regulatory standards when implementing the provisions of the NFIP. Specifically identified are the following:

Freeboard: By law, NYS requires Base Flood Elevation plus 2 feet (BFE+2) for all construction. When there is a base flood elevation available, the lowest floor, including any basement, must be at or above the base flood



elevation (plus 2 feet beginning in 2007). Elevation may be by means of properly compacted fill, a solid slab foundation, or a "crawl space" foundation which contains permanent openings to let flood waters in and out. Non-residential structures may be flood proofed in lieu of elevation. Where a local floodplain administrator has information to estimate a base flood elevation, such as historic flood records or a hydraulic study, that elevation must be used. If the development consists of more than 5 acres or more than 50 lots, the permit applicant must develop a base flood elevation and build accordingly (NYDEC 2018). Communities may go beyond this requirement, providing for additional freeboard. In most New York communities, new structures must have the lowest floor 3 feet or more above the highest adjacent grade.

Cumulative Substantial Improvements/Damages: The NFIP allows improvements valued at up to 50 percent of the building's pre-improvement value to be permitted without meeting the flood protection requirements. Over the years, a community may issue a succession of permits for different repairs or improvement to the same structures. This can greatly increase the overall flood damage potential for structures within a community. The community may wish to deem "substantial improvement" cumulatively so that once a threshold of improvement within a certain length of time is reached, the structure is considered to be substantially improved and must meet flood protection requirements.

NFIP Community Rating System (CRS)

As an additional component of the NFIP, the Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS: (1) reduce flood losses, (2) facilitate accurate insurance rating, and (3) promote the awareness of flood insurance (FEMA 2012). Municipalities and the county as a whole could expect significant cost savings on premiums if enrolled in the CRS program.

U.S. Army Corps of Engineers

Under Section 404(e) of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) can issue general permits to authorize activities that have only minimal individual and cumulative adverse environmental effects. A nationwide permit (NWP) is a general permit that authorizes activities across the country, unless a district or division commander revokes the nationwide permit in a state or other geographic region. There are 54 nationwide permits, and they authorize a wide variety of activities, including: linear transportation projects, bank stabilization activities, residential development, commercial and industrial developments, aids to navigation and certain maintenance activities (USACE 2017). Details on each NWP can be found here: <https://usace.contentdm.oclc.org/utis/getfile/collection/p16021coll7/id/6711>.

There are three types of USACE permits: standard, nationwide (described above), and regional. Standard permits are individual permits that involve full public interest review of an individual permit application and includes the issuance of a public notice for any project that does not meet the terms and conditions of an NWP or a Letter of Permission (LOP). Regional general permits are for small, specialized projects. In New York State, there are six regional general permit categories (see <https://www.lrb.usace.army.mil/Missions/Regulatory/New-York-Permit-Information/>) (USACE Buffalo District 2019).

New York State Floodplain Management

Two departments have statutory authorities and programs that affect floodplain management at the local jurisdiction level in New York State: the New York State Department of Environmental Conservation (NYSDEC) and the Department of State's Division of Code Enforcement and Administration (DCEA).



The NYSDEC is charged with conserving, improving, and protecting the state’s natural resources and environment; and preventing, abating, and controlling water, land, and air pollution. Programs that have bearing on floodplain management are managed by the Bureau of Flood Protection and Dam Safety, which cooperates with federal, state, regional, and local partners to protect lives and property from floods, coastal erosion, and dam failures. These objectives are accomplished through floodplain management and both structural and nonstructural means.

The Dam Safety Section is responsible for “reviewing repairs and modifications to dams and assuring [sic] that dam owners operate and maintain dams in a safe condition through inspections, technical reviews, enforcement, and emergency planning.” The Flood Control Projects Section is responsible for reducing flood risk to life and property through construction, operation, and maintenance of flood control facilities.

The Floodplain Management Section is responsible for reducing flood risk to life and property through management of activities, such as development in flood hazard areas, and for reviewing and developing revised flood maps. The Section serves as the NFIP State Coordinating Agency and in this capacity, is the liaison between FEMA and New York communities that elect to participate in the NFIP. The Section provides a wide range of technical assistance.

6.4.3 Administrative and Technical Capabilities - County and Local

This subsection provides a summary of capabilities to support hazard mitigation for local jurisdictions, some of which who sat on the Steering Committee and others who provide a resource for support and information to communities. Specific local capabilities (e.g. police, fire, EMS, highway and public works departments, etc.) are provided in Section 9 (Jurisdictional Annexes).

Livingston County Planning Department

The Livingston County Planning Department serves two primary functions. First, it provides technical assistance to the towns and villages on local land use regulations, economic development, mapping, and environmental protection. It provides staff assistance to the County Planning Board, the Agriculture and Farmland Protection Board, the Conesus Lake Watershed Council and the Environmental Management Council. Second, the Planning Department provides research, mapping, and analytical capabilities to assist the County Administrator, Board of Supervisors, and county departments.

Livingston County Office of Emergency Management

The Livingston County Office of Emergency Management Services coordinates with county and local shareholders in responding and recovering from all natural and man-made emergencies. The OEM provides the leadership and support to reduce loss of life and property through an all-hazards emergency management program of mitigation, preparedness, response, and recovery throughout Livingston County.

The OEM seeks to equip governmental, volunteer, and private organizations, with effective plans, necessary resources, and training in order to respond to emergencies. They provide fire training courses, safety tips, and create and promote safety notices for residents. The OEM also coordinates education programs to train emergency personnel.

Livingston County Water & Sewer Authority

The Livingston County Water & Sewer Authority (LCWSA) seeks to provide high quality, environmentally sound, efficient, reliable, and affordable water and sewer to buildings in the county. They ensure Livingston County is in compliance with EPA regulations, SPDES permit requirements, and a variety of New York agencies



and policies. The LCWSA is responsible for the maintenance and inspection of existing facilities and equipment, which includes conducting engineering studies of the sewer collection system to determine inflow areas and implementing an internal plumbing inspection program to prevent sewer overflows.

Livingston County Health Department

The Livingston County Health Department works to assure the availability of health services, to promote healthy living, and to ensure a safe environment for today and the future. Services and programs provided by the department include Bereavement Support Groups, the Cancer Services Program, the Diabetes Support Group, the Early Intervention Program, the Immunization Clinic, Prescription Assistance, and a Reproductive Health Center.

[Livingston County Department of Health, Mt. Morris, NY](#)

Livingston County Board of Supervisors

The Livingston County Board of Supervisors consists of 17 town supervisors who are elected officials and represent citizens at the county level. A supervisor holds office for either two- or four-year terms and the term is set by each particular town. The County Administrator is directly responsible to the Board of Supervisors for the overall administration of county government and coordinates the daily operations of county government. The Board of Supervisors is responsible for establishing and approving policies and local laws, approving the annual budget, approving contracts for projects and services, conducting public hearings, setting county employee salaries, making appointments to boards, committees, and administration.

[About the Board of Supervisors | Livingston County, NY - Official Website](#)

Livingston County Highway Department

The Livingston County Highway Department is responsible for controlling and implementing all activities required to maintain and repair the County's road and bridge infrastructure, consisting of 242 miles of highway and 72 bridges. Highway Department activities include:

- Reconstruction and Construction of Roads and Bridges
- Bridge Repair and Maintenance
- Road Paving, Recycling and Surface Treating
- Repair and Replacement of Culverts and Drainage Systems
- Cleaning and Improving Ditches
- Cutting Trees and Brush
- Grading and Patching Shoulders
- Patching Pavement
- Traffic Sign Maintenance and Fabrication

Recently completed projects include extending Millennium Drive, replacing Bridge 004, Polebridge Rd over Conesus Outlet, and replacing Bridge 084, Pokamoonshine Rd over Carney Hollow Creek.

[Highway Department | Livingston County, NY - Official Website](#)

Genesee Transportation Council

The Genesee Transportation Council (GTC) is the state-designated Metropolitan Planning Organization (MPO), responsible for administering continuous and comprehensive transportation planning for the region. GTC's



planning jurisdiction, called the Metropolitan Planning Area (MPA), covers all towns and villages within Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wyoming, and Yates Counties. As the MPO, the GTC provides the forum for cooperative decision making in the development of transportation plans, programs, and recommendations. Its committees are comprised of elected and appointed officials, representing local, state and federal governments, agencies, and organizations having interest in or responsibility for transportation planning and programming. The GTC also provides an opportunity for citizens to participate in the discussion of specific transportation issues and projects and encourages the public to get involved in the public involvement opportunities available (GTC 2020).

www.gtcmpo.org

New York State Federation of Lake Associations

New York State Federations of Lake Associations (NYSFOLA) is a non-profit coalition of lake associations, individuals, and corporate members dedicated to the protection and restoration of lakes across New York State. They provide education and outreach to lake associations, including information on harmful algal blooms and invasive aquatic plant species. NYSFOLA also assists NYSDEC with the Citizens Statewide Lake Assessment Program (CSLAP), which is a volunteer lake monitoring program. Volunteers are responsible for collecting water quality data and samples from June through September. Volunteers also submit aquatic plant samples, take lake level measurements, monitor for invasive species, conduct angler surveys, and provide other valuable information about the condition of the lakes. NYSFOLA also publishes newsletters throughout the year (NYSFOLA 2019).

[NYSFOLA – New York State Federation of Lake Associations](#)

The Conesus Lake Association is very active. This Association educates residents and government agencies about threats to Conesus Lake and watershed and works on protecting and improving water quality of the lake. The lake association was invited to participating in the planning process and to attend meetings.

[Home - Conesus Lake Association](#)

Livingston County Agriculture and Farmland Protection Board (AFPB)

The purpose of the Agriculture and Farmland Protection Board is to advise the County Board of Supervisors, and to work on the establishment, continuation, modification, or termination of agricultural districts in the county. The board provides expert advice relating to any potential actions, including the nature of farming and farm resources within a district, and the relation of farming in the district to the county as a whole. It may review notice of intent filings and make recommendations on the effect and reasonableness of proposed activities. The board assesses and approves agricultural and farmland protection plans. The board may also ask the NYS Department of Agriculture and Markets Commissioner to review any state rules or regulations that the board identifies as affecting agriculture within a district.

Members of the AFPB include active farmers; representatives from agribusiness, the Cornell Cooperative Extension of Livingston County; the County Board of Supervisors; and other county departments. All members have a background and expertise in agriculture.



6.4.4 Administrative and Technical Capabilities - State and Federal

New York State Division of Homeland Security and Emergency Services (NYS DHSES)

For more than 50 years, NYS DHSES (formerly New York State Office of Emergency Management) and its predecessor agencies have been responsible for coordinating the activities of all state agencies to protect communities, the economic well-being, and the environment from natural and man-made disasters and emergencies throughout New York State. NYS DHSES routinely assists local governments, voluntary organizations, and private industry through a variety of emergency management programs including hazard identification, loss prevention, planning, training, operational response to emergencies, technical support, and disaster recovery assistance.

NYS DHSES administers the FEMA mitigation grant programs in the state and supports local mitigation planning in addition to developing and routinely updating the State Hazard Mitigation Plan. NYS DHSES prepared the current State Hazard Mitigation Plan working with input from other State agencies, authorities and organizations. It was approved by FEMA in 2014 and it keeps New York eligible for recovery assistance in all Public Assistance Categories A through G, and Hazard Mitigation assistance in each of the Unified Hazard Mitigation Assistance Program's five grant programs. For example, the 2008-2011 State Mitigation Plan allowed the state and its communities to access nearly \$57 million in mitigation grants to prepare plans and carry out projects. The 2014 New York State HMP was used as guidance in completing the Livingston County HMP Update. The State HMP can be found here: <http://www.dhSES.ny.gov/recovery/mitigation/plan.cfm>

New York State Department of Environmental Conservation (NYSDEC) – Region 9 – Central New York

Within the NYSDEC, Region 8 is located in western New York and includes the Genesee River, the shoreline of Lake Ontario, several Finger Lakes, and dozens of state forests. The main DEC office is located in Avon in Livingston County, with suboffices in Bath and Elmira. DEC staff are responsible for natural resource management and environmental quality protection. As part of natural resource management, staff oversee state fish and wildlife resources, as well as state forests and wildlife (NYSDEC Region 8 2020).

New York State Department of Environmental Conservation (NYSDEC) – Division of Water - Bureau of Flood Protection and Dam Safety

Within the NYSDEC, the Division of Water, the Bureau of Flood Protection and Dam Safety (<http://www.dec.ny.gov/about/61432.html>) cooperates with federal, state, regional, and local partners to protect lives and property from floods, coastal erosion and dam failures through floodplain management and both structural and non-structural means; and, provides support for information technology needs.

The Bureau consists of the following:

- Coastal Management: Works to reduce coastal erosion and storm damage to protect lives, natural resources, and properties through structural and non-structural means.
- Dam Safety: Is responsible for reviewing repairs and modifications to dams and assuring that dam owners operate and maintain dams in a safe condition through inspections, technical reviews, enforcement, and emergency planning.
- Flood Control Projects: Is responsible for reducing flood risk to life and property through construction, operation and maintenance of flood control facilities.



- Floodplain Management: Is responsible for reducing flood risk to life and property through proper management of activities including, development in flood hazard areas and review and development of revised flood maps (NYSDEC Bureau of Flood Protection and Dam Safety 2019).

Northeast Regional Climate Center

The Northeast Regional Climate Center (NRCC) partnered with the New York State Energy Research and Development Authority (NYSERDA) to compare various methods of downscaling global climate model (GCM) output and create extreme precipitation projections for New York State. These projections can be incorporated into climate change adaptation planning. Projections for Livingston County are discussed in Section 5 (Risk Assessment). To help New York State communities plan for effects of climate change, new graphics are now available showing the increased likelihood of heavy precipitation events (NRCC 2019). The projections are provided at: <http://www.nrcc.cornell.edu/>

Department of State’s Division of Code Enforcement and Administration (DCEA)

Technical Bulletins for the 2010 Codes of New York State

The DCEA has published 14 technical bulletins, including two recent bulletins, with guidance related to flood hazard areas: Electrical Systems and Equipment in Flood-damaged Structures and Accessory Structures.

Forms and Publications

The DCEA posts several model reporting forms and related publications on its web page. The Building Permit Application requests the applicant to indicate whether the site is or is not in a floodplain and advises checking with town clerks or NYSDEC. The General Residential Code Plan Review form includes a reminder to “add 2’ freeboard.” Sample Flood Hazard Area Review Forms, including plan review checklists and inspection checklists for Zone A and Zone V, are based on the forms provided in Reducing Flood Losses through the International Code Series published by International Code Council and FEMA (2008).

6.4.5 Fiscal Capabilities – County and Local

Municipal Fiscal Capabilities

Livingston County and individual municipalities are (legally; however, not necessarily practically) able to fund mitigation projects through existing local budgets, local appropriations (including referendums and bonding), and through a variety of federal and state loan and grant programs.

6.4.6 Fiscal Capabilities – State and Federal

Refer to the Strategies section of the 2019 New York State Hazard Mitigation Plan for information pertaining to the various funding sources available for mitigation projects:

<https://mitigateny.availabs.org/strategies/funding>

Federal Hazard Mitigation Funding Opportunities

Federal mitigation grant funding is available to all communities with a current hazard mitigation plan (this plan); however most of these grants require a “local share” in the range of 10 to 25 percent of the total grant amount. Details about this program and a further description of these opportunities can be found at:

<https://www.fema.gov/hazard-mitigation-assistance>. The FEMA mitigation grant programs are described below.



Hazard Mitigation Grant Program (HMGP)

The HMGP is a post-disaster mitigation program. It is made available to states by FEMA after each federal disaster declaration. The HMGP can provide up to 75 percent funding for hazard mitigation measures. The HMGP can be used to fund cost-effective projects that will protect public or private property in an area covered by a federal disaster declaration or that will reduce the likely damage from future disasters. Examples of projects include acquisition and demolition of structures in hazard prone areas, flood-proofing or changing elevation to reduce future damage, minor structural improvements and development of state or local standards. Projects must fit into an overall mitigation strategy for the area identified as part of a local planning effort. All applicants must have a FEMA-approved Hazard Mitigation Plan (this plan).

Applicants who are eligible for the HMGP are state and local governments, certain nonprofit organizations or institutions that perform essential government services, and Native American tribes and authorized tribal organizations. Individuals or homeowners cannot apply directly for the HMGP; a local government must apply on their behalf. Applications are submitted to NYS DHSES and placed in rank order for available funding and submitted to FEMA for final approval. Eligible projects not selected for funding are placed in an inactive status and may be considered as additional HMGP funding becomes available.

For additional information regarding HMGP, refer to: <https://www.fema.gov/hazard-mitigation-grant-program>

Flood Mitigation Assistance (FMA) Program

The FMA program combines the previous Repetitive Flood Claims and Severe Repetitive Loss Grants into one grant program. The FMA provides funding to assist states and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the NFIP. The FMA is funded annually; no federal disaster declaration is required. Only NFIP insured homes and businesses are eligible for mitigation in this program. Funding for FMA is very limited and, as with the HMGP, individuals cannot apply directly for the program. Applications must come from local governments or other eligible organizations. The federal cost share for an FMA project is at least 75 percent. At most, 25 percent of the total eligible costs must be provided by a non-federal source. Of this 25 percent, no more than half can be provided as in-kind contributions from third parties. At minimum, a FEMA-approved local flood mitigation plan is required before a project can be approved. The FMA funds are distributed from FEMA to the state. The NYS DHSES serves as the grantee and program administrator for the FMA program.

For additional information regarding the FMA program, refer to: <https://www.fema.gov/flood-mitigation-assistance-grant-program>

Building Resilient Infrastructure and Communities (BRIC) Program

Building Resilient Infrastructure and Communities (BRIC) will support states, local communities, tribes and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards. BRIC is a new FEMA pre-disaster hazard mitigation program that replaces the existing Pre-Disaster Mitigation (PDM) program.

The BRIC program guiding principles are supporting communities through capability- and capacity-building; encouraging and enabling innovation; promoting partnerships; enabling large projects; maintaining flexibility; and providing consistency.

For additional information regarding the BRIC program, refer to: <https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities>



Extraordinary Circumstances

For BRIC and FMA project subawards, the FEMA Region may apply extraordinary circumstances when justification is provided and with concurrence from FEMA Headquarters (Risk Reduction and Risk Analysis Divisions) prior to granting an exception. If this exception is granted, a local mitigation plan must be approved by FEMA within 12 months of the award of the project subaward to that community.

For HMGP, BRIC, and FMA, extraordinary circumstances exist when a determination is made by the Applicant and FEMA that the proposed project is consistent with the priorities and strategies identified in the state (Standard or Enhanced) Mitigation Plan and that the jurisdiction meets at least one of the criteria below. If the jurisdiction does not meet at least one of these criteria, the Region must coordinate with FEMA Headquarters (Risk Reduction and Risk Analysis Divisions) for HMGP; however, for BRIC and FMA the Region must coordinate and seek concurrence prior to granting an exception:

- The jurisdiction meets the small, impoverished community criteria (see Part VIII, B.2).
- The jurisdiction has been determined to have had insufficient capacity due to lack of available funding, staffing, or other necessary expertise to satisfy the mitigation planning requirement prior to the current disaster or application deadline.
- The jurisdiction has been determined to have been at low risk from hazards because of low frequency of occurrence or minimal damage from previous occurrences as a result of sparse development.
- The jurisdiction experienced significant disruption from a declared disaster or another event that impacts its ability to complete the mitigation planning process prior to award or final approval of a project award.
- The jurisdiction does not have a mitigation plan for reasons beyond the control of the state, federally recognized tribe, or local community, such as Disaster Relief Fund restrictions that delay FEMA from granting a subaward prior to the expiration of the local or Tribal Mitigation Plan.

For HMGP, BRIC, and FMA, the Applicant must provide written justification that identifies the specific criteria or circumstance listed above, explains why there is no longer an impediment to satisfying the mitigation planning requirement, and identifies the specific actions or circumstances that eliminated the deficiency.

When an HMGP project funding is awarded under extraordinary circumstances, the recipient shall acknowledge in writing to the Regional Administrator that a plan will be completed within 12 months of the subaward. The recipient must provide a work plan for completing the local or Tribal Mitigation Plan, including milestones and a timetable, to ensure that the jurisdiction will complete the plan in the required time. This requirement shall be incorporated into the award (both the planning and project subaward agreements, if a planning subaward is also awarded).

Federal and State Disaster and Recovery Assistance Programs

Following a disaster, various types of assistance may be made available by local, state, and federal governments. The types and levels of disaster assistance depend on the severity of the damage and the declarations that result from the disaster event. If the President of the United States declares an event a major disaster, the types of assistance available are listed below.

Individual Assistance (IA)

Individual Assistance (IA) provides help for homeowners, renters, businesses and some non-profit entities after disasters occur. This program is largely funded by the U.S. Small Business Administration. For homeowners and renters, those who suffered uninsured or underinsured losses may be eligible for a Home Disaster Loan to repair or replace damaged real estate or personal property. Renters are eligible for loans to cover personal property losses. Individuals may borrow up to \$200,000 to repair or replace real estate, \$40,000 to cover losses



to personal property and an additional 20 percent for mitigation. For businesses, loans may be made to repair or replace disaster damages to property owned by the business, including real estate, machinery and equipment, inventory and supplies. Businesses of any size are eligible. Non-profit organizations, such as charities, churches, private universities, etc. are also eligible. An Economic Injury Disaster Loan provides necessary working capital until normal operations resume after a physical disaster. These loans are restricted, by law, to small businesses only. For additional information regarding IA, refer to: <https://www.fema.gov/individual-disaster-assistance>

Public Assistance (PA)

Public Assistance (PA) provides cost reimbursement aid to local governments (state, county, local, municipal authorities and school districts) and certain non-profit agencies that were involved in disaster response and recovery programs or that suffered loss or damage to facilities or property used to deliver government-like services. This program is largely funded by FEMA with both local and state matching contributions required. For additional information regarding PA, refer to: <https://www.fema.gov/public-assistance-local-state-tribal-and-non-profit>

Small-Business Administration (SBA) Loans

Small Business Administration (SBA) provides low-interest disaster loans to homeowners, renters, business of all sizes, and most private nonprofit organizations. SBA disaster loans can be used to repair or replace the following items damaged or destroyed in a declared disaster: real estate, personal property, machinery and equipment, and inventory and business assets.

Homeowners may apply for up to \$200,000 to replace or repair their primary residence. Renters and homeowners may borrow up to \$40,000 to replace or repair personal property-such as clothing, furniture, cars, and appliances damaged or destroyed in a disaster. Physical disaster loans of up to \$2 million are available to qualified businesses or most private nonprofit organizations. For additional information regarding SBA loans, refer to: <https://www.sba.gov/managing-business/running-business/emergency-preparedness/disaster-assistance>

Department of Homeland Security

The Homeland Security Grant Program (HSGP) plays an important role in the implementation of the National Preparedness System by supporting the building, sustainment, and delivery of core capabilities essential to achieving the National Preparedness Goal of a secure and resilient nation. The HSGP supports efforts to build and sustain core capabilities across the Prevention, Protection, Mitigation, Response, and Recovery mission areas. This includes two priorities: building and sustaining law enforcement terrorism prevention capabilities, and maturation and enhancement of state and major urban area fusion centers (HSGP 2020). HSGP is comprised of three interconnected grant programs, including the State Homeland Security Program (SHSP), Urban Areas Security Initiative (UASI), and the Operation Stonegarden (OPSG). Together, these grant programs fund a range of preparedness activities, including planning, organization, equipment purchase, training, exercises, and management and administration. For additional information regarding HSGP, refer to: <https://www.fema.gov/homeland-security-grant-program>

Community Development Block Grants (CDBG)

CDBG are federal funds intended to provide low and moderate-income households to develop viable communities, including decent housing, as suitable living environment, and expanded economic opportunities. Eligible activities include community facilities and improvements, roads and infrastructure, housing rehabilitation and preservation, development activities, public services, economic development, planning, and administration. Public improvements may include flood and drainage improvements. In limited instances, and during the times of “urgent need” (e.g., post disaster) as defined by the CDBG National Objectives, CDBG



funding may be used to acquire a property located in a floodplain that was severely damaged by a recent flood, demolish a structure severely damaged by an earthquake, or repair a public facility severely damaged by a hazard event. For additional information regarding CDBG, refer to: <https://www.hudexchange.info/programs/cdbg-entitlement/>

U.S. Economic Development Administration

The U.S. Economic Development Administration (USEDA) is an agency of the U.S. Department of Commerce that supports regional economic development in communities around the country. It provides funding to support comprehensive planning and makes strategic investments that foster employment creation and attract private investment in economically distressed areas of the United States. Through its Public Works Program, USED A invests in key public infrastructure, such as in traditional public works projects, including water and sewer systems improvements, expansion of port and harbor facilities, brownfields, multi-tenant manufacturing and other facilities, business and industrial parks, business incubator facilities, redevelopment technology-based facilities, telecommunications and development facilities. Through its Economic Adjustment Program, USED A administers its Revolving Loan Fund (RLF) Program, which supplies small businesses and entrepreneurs with the gap financing needed to start or expand their business, in areas that have experienced or are under threat of serious structural damage to the underlying economic base. Refer to the USED A website (<https://www.eda.gov/>) for additional information.

Federal Highway Administration - Emergency Relief

The Federal Highway Administration (FHWA) Emergency Relief (ER) program is a grant program that may be used by states for repair or reconstruction of federal-aided highways and roads on federal lands that have suffered serious damage as a result of a disaster. \$100 million is authorized annually for the ER program but Congress may approve additional funds through supplemental appropriations. NYS serves as the liaison between local municipalities and FHWA. For information regarding the FHWA Emergency Relief Program, refer to: <https://www.fhwa.dot.gov/programadmin/erelief.cfm>

Federal Transit Administration - Emergency Relief

The Federal Transit Authority Emergency Relief is a grant program that funds capital projects to protect, repair, reconstruct, or replace equipment and facilities of public transportation systems. Administered by the Federal Transit Authority at the U.S. Department of Transportation and directly allocated to FTA and Port Authority. This transportation-specific fund was created as an alternative to FEMA PA. Currently, a total of \$5.2 billion has been allocated to NYS-related entities. For information regarding the FTA Emergency Relief Program, refer to: <https://www.transit.dot.gov/funding/grant-programs/emergency-relief-program/emergency-relief-program>

Empire State Development

Empire State Development offers a wide range of financing, grants and incentives to promote business and employment growth, and real estate development throughout the State. Several programs address infrastructure construction associated with project development, acquisition and demolition associated with project development and brownfield remediation and redevelopment. For additional information regarding Empire State Development, refer to: <https://esd.ny.gov/>



State Hazard Mitigation Funding Opportunities

New York State Department of Transportation (NYSDOT)

Emergency Watershed Protection Program

The purpose of the Emergency Watershed Protection Program (EWP) was established by Congress to respond to emergencies created by natural disasters. The EWP Program is designed to help people and conserve natural resources by relieving imminent hazards to life and property caused by floods, fires, drought, windstorms, and other natural occurrences. The U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) administers the EWP Program; EWP-Recovery, and EWP-Floodplain Easement (FPE). For additional information regarding the EWP, refer to:

<https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/ewpp/>

EWP - Recovery

The EWP Recovery Program is a recovery effort program aimed at relieving imminent hazards to life and property caused by floods, fires, windstorms, and other natural occurrences. Public and private landowners are eligible for assistance but must be represented by a project sponsor that must be a legal subdivision of the State, such as a city, county, township or conservation district, and Native American Tribes or Tribal governments. NRCS may pay up to 75 percent of the construction cost of emergency measures. The remaining 25 percent must come from local sources and can be in the form of cash or in-kind services.

EWP work is not limited to any one set of measures. It is designed for installation of recovery measures to safeguard lives and property as a result of a natural disaster. NRCS completes a Damage Survey Report (DSR), which provides a case-by-case investigation of the work necessary to repair or protect a site.

The EWP Program addresses watershed impairments, including debris-clogged stream channels, undermined and unstable streambanks, jeopardized water control structures and public infrastructures, wind-borne debris removal, and damaged upland sites stripped of protective vegetation by fire or drought.

EWP - Floodplain Easement (FPE)

Privately owned lands or lands owned by local and state governments may be eligible for participation in EWP-FPE. To be eligible, lands must meet one of the following criteria:

- Lands that have been damaged by flooding at least once within the previous calendar year or have been subject to flood damage at least twice within the previous 10 years
- Other lands within the floodplain are eligible, provided the lands would contribute to the restoration of the flood storage and flow, provide for control of erosion, or that would improve the practical management of the floodplain easement
- Lands that would be inundated or adversely impacted as a result of a dam breach

EWP-FPE easements are restored to the extent practicable to the natural environment and may include both structural and nonstructural practices to restore the flood storage and flow, erosion control, and improve the practical management of the easement.

Structures, including buildings, within the floodplain easement must be demolished and removed, or relocated outside the 100-year floodplain or dam breach inundation area.



New York State Department of Environmental Conservation Climate Smart Communities (CSC) Program

The Climate Smart Communities (CSC) program is jointly sponsored by the following six New York State agencies: Department of Environmental Conservation, Energy Research and Development Authority, Public Service Commission, Department of State, Department of Transportation, and the Department of Health. The program encourages municipalities to minimize the risks of climate change and reduce long-term costs through actions which reduce greenhouse gas (GHG) emissions and adapt to a changing climate. The program offers free technical support on energy and climate and guidance tailored to New York State communities. As of September 2020, more than 312 communities, representing over 6.6 million New Yorkers in every region of the state, have committed to acting on climate through New York State’s Climate Smart Communities program.

Benefits of participating in the program include saving taxpayer dollars, improving operations and infrastructure, increasing energy independence and security, demonstrating leadership, and positioning for economic growth. Registered Climate Smart Communities receive notification of state and federal assistance that they can leverage to help adopt low-carbon technologies, and of programs and support for efficiency improvements and energy conservation. Further, they receive an advantage in accessing some state assistance programs. They can call on the help of other local governments that already have adopted climate smart practices and policies, and their climate-smart accomplishments receive statewide recognition. Key elements of the Climate Smart Communities program are described below.

For additional information regarding the CSC program, refer to: <https://climatesmart.ny.gov/>.

Climate Smart Communities Pledge

Any city, town, village, or county in New York can join the program by adopting the Climate Smart Communities Pledge. To become a registered Climate Smart Community, the municipality's governing body must adopt a resolution that includes all ten elements of the Pledge and inform DEC of the passage of the resolution. The required ten elements of the Pledge are as follows:

- Pledge to be a Climate Smart Community.
- Set goals, inventory emissions, plan for climate action.
- Decrease community energy use.
- Increase community use of renewable energy.
- Realize benefits of recycling and other climate-smart solid waste management practices.
- Reduce greenhouse gas emissions through use of climate-smart land-use tools.
- Enhance community resilience and prepare for the effects of climate change.
- Support development of a green innovation economy.
- Inform and inspire the public.
- Commit to an evolving process of climate action.

At the time of this plan update, the Villages of Dansville and Lima have registered with the program, but have not been rated.

Climate Smart Communities Certification (CSC) Program

The Climate Smart Communities Certification (CSC) program enables high-performing registered communities to achieve recognition for their leadership. Designed around the existing ten pledge elements, the certification program recognizes communities achieving any on over 130 total possible actions through a rating system leading to four levels of award: Certified, Bronze, Silver and Gold. Recertification of completed actions is



required every 5 years. Details of the program and the specific documentation required for each action are described in the CSC Certification Manual.

Climate Smart Communities Grant Program

In April 2016, DEC announced an expansion of the Environmental Protection Fund to support communities ready to reduce greenhouse gas emissions and prepare for the effects of climate change. Climate Smart Community Implementation grants support mitigation and adaptation projects and range from \$100,000 to \$2 million. Competitive grants ranging from \$25,000 to \$100,000 will also provide support for local governments to become certified Climate Smart Communities. All counties, cities, towns, and villages of the State of New York are eligible to receive funding. The CSC grant program will provide 50/50 matching grants for eligible projects in the following categories.

- Construction of natural resiliency measures
- Relocation or retrofit of climate-vulnerable facilities
- Conservation or restoration of riparian areas and tidal marsh migration area
- Reduction of flood risk
- Clean transportation
- Reduction or recycling of food waste

Funding is also available for certification projects that advance several specific actions aligned with Climate Smart Communities Certification requirements:

- Right-sizing of government fleets
- Developing natural resource inventories
- Conducting vulnerability assessments
- Developing climate adaptation strategies
- Updating hazard mitigation plans to address changing conditions and reduce climate vulnerability

In scoring grant applications, increasing points are awarded to communities who have already taken the CSC pledge and to those that have achieved certification status. All grant recipients must take the CSC pledge within the term of their grant contract. For climate mitigation projects, grant recipients must provide a report of estimates of emissions reduction. Certification actions must adhere to the requirements and standards described in the Climate Smart Communities Certification Manual (<https://www.dec.ny.gov/energy/76483.html>). For implementation projects involving property (construction, improvements, restoration, rehabilitation) – if the property is not owned by the grant recipient, they must obtain a climate change mitigation easement.

The Climate Smart Communities Toolkit was developed to educate New York communities on recommended practices that will help to reduce greenhouse gas emissions and adapt to the effects of climate change, specifically in the areas of land-use, transportation policy, green buildings, infrastructure investment, green infrastructure, housing policy, and adaptation and resilience. The Climate Smart Communities Guide to Local Action contains overviews of possible community actions, including “how-to’s” and case studies to help communities implement the CSC pledge. The Climate Smart Communities Land Use Toolkit allows New York communities to find recommended practices that will help to reduce greenhouse gas emissions in the areas of land use, transportation policy, green building, infrastructure investment, green infrastructure and housing policy.



New York State Department of Environmental Conservation (NYSDEC)

Water Quality Improvement Project (WQIP) Program

The Water Quality Improvement Project (WQIP) program is a competitive, reimbursement grant program that funds projects that directly address documented water quality impairments. The competitive, statewide grant program is open to local governments and not-for-profit corporations. Grant recipients may receive up to 75 percent of the project costs for high priority wastewater treatment improvement, non-agricultural nonpoint source abatement and control, land acquisition for source water protection, aquatic habitat restoration, and municipal separate storm sewer system projects; up to 50 percent for salt storage projects; and up to 40 percent for general wastewater infrastructure improvement projects. Eligible activities include:

- Wastewater treatment improvement
- Non-agricultural nonpoint source abatement and control
- Land acquisition for source water protection
- Salt storage
- Aquatic habitat restoration
- Municipal separate storm sewer systems (MS4)

Details regarding this program are available here - <https://www.dec.ny.gov/pubs/4774.html>.

New York State DEC/EFC Wastewater Infrastructure Engineering Planning Grant (EPG)

The New York State Department of Environmental Conservation (DEC), in conjunction with the New York State Environmental Facilities Corporation (EFC), will offer grants to municipalities to help pay for the initial planning of eligible Clean Water State Revolving Fund (CWSRF) water quality projects.

The Wastewater Infrastructure Engineering Planning Grant will assist municipalities with the engineering and planning costs of CWSRF-eligible water quality projects. Municipalities with a median household income (MHI) of \$65,000 or less in Regional Economic Development Council (REDC) regions of the Capital District, Southern Tier, North Country, Mohawk Valley, Central New York, Finger Lakes, or Western New York; or with a median household income of \$85,000 or less in REDC regions of Long Island, New York City or Mid-Hudson are eligible to apply. Grants with a 20 percent required local match will be provided to finance activities including engineering and/or consultant fees for engineering and planning services for the production of an engineering report.

The goal of the EPG program is to advance water quality projects to construction, so successful applicants can use the engineering report funded by the grant to seek financing through the CWSRF program, WQIP program, or other funding entities to further pursue the identified solution. Funding is prioritized by projects that are:

- Required by an executed Order on Consent; or
- Required by a draft or final State Pollutant Discharge Elimination System (SPDES) permit; or
- Upgrading or replacing an existing wastewater system; or
- Constructing a wastewater treatment and/or collection system for an area with failing onsite septic systems; or
- Identified in a Total Maximum Daily Load (TMDL) Implementation Plan

Details regarding this program can be found here - <https://www.dec.ny.gov/pubs/81196.html>.



New York State Department of Transportation

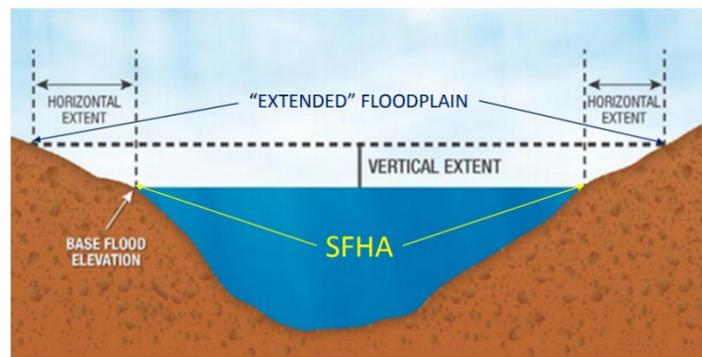
BRIDGE NY

The BRIDGE NY program, administered by the New York State Department of Transportation (NYSDOT), is open to all municipal owners of bridges and culverts. Projects will be awarded through a competitive process and will support all phases of project development. Projects selected for funding under the BRIDGE NY initiative will be evaluated based on the resiliency of the structure, including such factors as hydraulic vulnerability and structural resiliency; the significance and importance of the bridge including traffic volumes, detour considerations, number and types of businesses served and impacts on commerce; and the current bridge and culvert structural conditions. Information regarding the program can be found here:

<https://www.dot.ny.gov/BRIDGENY>

Community Risk and Resiliency Act (CRRA)

On September 22, 2014, Governor Andrew Cuomo signed bill A06558/S06617-B, the Community Risk and Resiliency Act (CRRA). The purpose of the bill was to ensure that certain state monies, facility-siting regulations and permits include consideration of the effects of climate risk and extreme-weather events. The bill's provisions applied to all applications and permits no later than January 1, 2017. CRRA includes five major provisions:



- Official Sea-level Rise Projections - CRRA requires the Department of Environmental Conservation (DEC) to adopt science-based sea-level rise projections into regulation.
- Consideration of Sea-Level Rise, Storm Surge and Flooding - CRRA requires applicants for permits or funding in a number of specified programs to demonstrate that future physical climate risk due to sea-level rise, storm surge, and flooding have been considered, and that DEC consider incorporating these factors into certain facility-siting regulations.
- Smart Growth Public Infrastructure Policy Act Criteria - CRRA adds mitigation of risk due to sea-level rise, storm surge, and flooding to the list of smart-growth criteria to be considered by state public-infrastructure agencies.
- Guidance on Natural Resiliency Measures - CRRA requires DEC, in consultation with the Department of State (DOS), to develop guidance on the use of natural resources and natural processes to enhance community resiliency.
- Model Local Laws Concerning Climate Risk - CRRA requires DOS, in cooperation with DEC, to develop model local laws that include consideration of future risk due to sea-level rise, storm surge and/or flooding. These model local laws must be based on available data predicting the likelihood of extreme-weather events, including hazard-risk analysis (NYSDEC 2018).

CRRA requires NYSDEC, in consultation with DOS, to prepare guidance on implementation of the statute. To meet its obligation to develop guidance for the implementation of CRRA, DEC is proposing a new document, State Flood Risk Management Guidance (SFRMG). The SFRMG is intended to inform state agencies, as they develop program-specific guidance, to require that applicants demonstrate consideration of sea-level rise, storm surge, and flooding, as permitted by program-authorizing statutes and operating regulations. The SFRMG incorporates possible future conditions, including the greater risks of coastal flooding presented by sea-level rise



and enhanced storm surge, and of inland flooding expected to result from increasingly frequent extreme-precipitation events (NYSDEC 2018).

For additional details on the CRRA, refer to: <https://www.dec.ny.gov/energy/102559.html>

6.4.7 Potential Mitigation Funding Sources

While it is important to recognize the mitigation strategies for each jurisdiction to help achieve the mitigation goals and objectives of the HMP, it is also important to provide sources for funding to implement these strategies. The table below provides a list of programs, descriptions, and links for those seeking funding sources. This table is not intended to be a comprehensive list, but rather a starting point to help identify potential sources of funding for the identified mitigation strategies.



Table 6-2. Mitigation Funding Sources

Program	Description	Lead Agency	Website
Federal			
Hazard Mitigation Assistance (HMA)	Grants to provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages – includes FMA, HMGP, BRIC	FEMA	https://www.fema.gov/hazard-mitigation-assistance
Flood Mitigation Assistance (FMA)	Program Grants to states and communities for pre-disaster mitigation planning and projects to help reduce or eliminate the long-term risk of flood damage to structures insurable under the National Flood Insurance Program	FEMA	https://www.fema.gov/flood-mitigation-assistance-grant-program
Hazard Mitigation Grant Program (HMGP)	Grants to states and communities for planning and projects providing long-term hazard mitigation measures following a major disaster declaration	FEMA	https://www.fema.gov/hazard-mitigation-grant-program
Building Resilient Infrastructure and Communities (BRIC)	Grants to states, local communities, tribes, and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards. BRIC is a new FEMA pre-disaster hazard mitigation program that replaces the existing Pre-Disaster Mitigation (PDM) program.	FEMA	https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities
Public Assistance: Hazard Mitigation Funding Under Section 406	Hazard mitigation discretionary funding available under Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act following a Presidentially declared disaster	FEMA	https://www.fema.gov/news-release/2017/05/03/4309/fema-hazard-mitigation-grants-404-and-406
Assistance to Firefighters Grant Program	The primary goal of the Assistance to Firefighters Grants (AFG) is to enhance the safety of the public and firefighters with respect to fire-related hazards by providing direct financial assistance to eligible fire departments, nonaffiliated Emergency Medical Services organizations, and State Fire Training Academies. This funding is for critically needed resources to equip and train emergency personnel to recognized standards, enhance operations efficiencies, foster interoperability, and support community resilience.	FEMA	https://www.fema.gov/welcome-assistance-firefighters-grant-program
Disaster Housing Program	Emergency assistance for housing, including minor repair of home to establish livable conditions, mortgage and rental assistance	HUD	https://www.hud.gov/program_offices/public_indian_housing/publications/dhap
HOME Investment Partnerships Program	Grants to local and state government and consortia for permanent and transitional housing, (including financial support for property acquisition and rehabilitation for low income persons)	HUD	https://www.hud.gov/program_offices/comm_planning/affordablehousing/programs/home/



Program	Description	Lead Agency	Website
HUD Disaster Recovery Assistance	Grants to fund gaps in available recovery assistance after disasters (including mitigation)	HUD	https://www.hud.gov/info/disasterresources
Section 108 Loan Guarantee	Enables states and local governments participating in the Community Development Block Grant (CDBG) program to obtain federally guaranteed loans for disaster-distressed areas	HUD	https://www.hudexchange.info/programs/section-108/
Smart Growth Implementation Assistance (SGIA) program	The SGIA program focuses on complex or cutting-edge issues, such as stormwater management, code revision, transit-oriented development, affordable housing, infill development, corridor planning, green building, and climate change. Applicants can submit proposals under 4 categories: community resilience to disasters, job creation, the role of manufactured homes in sustainable neighborhood design or medical and social service facilities siting.	EPA	https://www.epa.gov/smartgrowth
Partners for Fish and Wildlife	Financial and technical assistance to private landowners interested in pursuing restoration projects affecting wetlands and riparian habitats	U.S. Fish and Wildlife Service	https://www.fws.gov/partners/
FHWA Emergency Relief Program	Fund for the repair or reconstruction of federal-aid highways that have suffered serious damage as a result of (1) natural disasters or (2) catastrophic failures from an external cause	U.S. Department of Transportation (DOT)	https://www.fhwa.dot.gov/programadmin/erelief.cfm
Transportation Investment Generating Economic Recovery (TIGER)	Investing in critical road, rail, transit and port projects across the nation	U.S. DOT	https://www.transportation.gov/tags/tiger-grants
Community Facilities Direct Loan & Grant Program	This program provides affordable funding to develop essential community facilities in rural areas. An essential community facility is defined as a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area, and does not include private, commercial or business undertakings.	USDA	https://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program
Emergency Loan Program	USDA's Farm Service Agency (FSA) provides emergency loans to help producers recover from production and physical losses due to drought, flooding, other natural disasters or quarantine	USDA	https://www.fsa.usda.gov/programs-and-services/farm-loan-programs/emergency-farm-loans/index
Emergency Watershed Protection (EWP) program	Assistance to relieve imminent hazards to life and property caused by floods, fires, drought, windstorms, and other natural occurrences	NRCS	https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/ewpp/
Financial Assistance	Financial assistance to help plan and implement conservation practices that address natural resource concerns or opportunities to help save energy, improve soil, water, plant, air, animal and related resources on agricultural lands and non-industrial private forest land	NRCS	https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/



Program	Description	Lead Agency	Website
Emergency Management Performance Grants (EMPG) Program	Assistance to local, tribal, territorial, and state governments in enhancing and sustaining all-hazards emergency management capabilities	U.S. DHS	https://www.fema.gov/emergency-management-performance-grant-program
Land & Water Conservation Fund	Matching grants to states and local governments for the acquisition and development of public outdoor recreation areas and facilities (as well as funding for shared federal land acquisition and conservation strategies)	National Park Service	https://www.nps.gov/subjects/lwcf/index.htm
State			
Local Government Records Management Improvement Fund (LGRMIF) Disaster Recovery Grants	Grants for disaster recovery projects related to damage caused by a sudden, unexpected event involving fire, water, man-made or natural phenomena where a timely response is necessary to prevent the irretrievable loss of vital or archival records, or to ensure reasonable, timely access to vital records	New York State Archives / New York State Education Department	http://www.archives.nysed.gov/grants/grants_lgrmif.shtml
The New York State Emergency Services Revolving Loan	Repair of firefighting apparatus, ambulances, or rescue vehicles; Renovation, rehabilitation, or repair of facilities that house firefighting equipment, ambulances, rescue vehicles, and related equipment	NYS DHSES	http://www.dhSES.ny.gov/ofpc/services/loan/
Environmental Protection Fund (EPF)	Matching grants for the acquisition, planning, development, and improvement of parks, historic properties	New York State Parks, Recreation & Historic Preservation (NYSOPRHP)	https://www.dec.ny.gov/about/92815.html
Recreational Trails (RTP)	Matching grants program for the acquisition, development, rehabilitation and maintenance of trails and trail-related projects	NYSOPRHP	https://parks.ny.gov/grants/recreational-trails/default.aspx
Environmental Protection & Improvement Grants	Competitive grants for environmental protection and improvement; available for municipalities, community organizations, not-for-profit organizations and others	New York State Department of Environmental Conservation	https://www.dec.ny.gov/about/92815.html



Program	Description	Lead Agency	Website
Volunteer Fire Assistance Grants	The grant is a 50/50 matching funds program. Its purpose is to make funds available to rural fire companies for the purchase of wildland firefighting equipment such as portable backpack pumps, Nomex protective clothing, hand tools, hard hats, hose, portable radios and dry hydrants.	NYSDEC	https://www.dec.ny.gov/regulations/2364.html
Clean Water Act Section 604(b) Water Quality Planning Grants	Provides funding to implement regional comprehensive water quality management planning activities as described in Section 604(b) of the federal Clean Water Act. 604(b) funds are to be used for water quality management planning activities, including tasks to determine the nature, extent and causes of point and nonpoint source water pollution problems, and to develop plans to resolve these problems.	NYSDEC	https://www.dec.ny.gov/lands/53122.html
Water Quality Improvement Project (WQIP) Program	The Water Quality Improvement Project (WQIP) program is a competitive, reimbursement grant program that funds projects that directly address documented water quality impairments. Applications are typically available each spring through the Consolidated Funding Application.	NYSDEC	https://www.dec.ny.gov/pubs/4774.html
New York State DEC/EFC Wastewater Infrastructure Engineering Planning Grant (EPG)	The New York State Department of Environmental Conservation (DEC), in conjunction with the New York State Environmental Facilities Corporation (EFC), will offer grants to municipalities to help pay for the initial planning of eligible Clean Water State Revolving Fund (CWSRF) water quality projects. The ultimate goal of the EPG program is to advance water quality projects to construction, so successful applicants can use the engineering report funded by the grant to seek financing through the CWSRF program, Water Quality Improvement Project program, or other funding entities to further pursue the identified solution.	NYSDEC	https://www.dec.ny.gov/pubs/81196.html
Climate Smart Communities Grant Program	The CSC Grant program was established in 2016 to provide 50/50 matching grants to cities, towns, villages, and counties (or boroughs of New York City) of the State of New York for eligible climate adaptation and mitigation projects.	NYSDEC	https://www.dec.ny.gov/energy/109181.html
BRIDGE NY	The state is making funding available for local governments to rehabilitate and replace bridges and culverts statewide.	NYS DOT	https://www.dot.ny.gov/BRIDGENY



6.5 MITIGATION STRATEGY DEVELOPMENT AND UPDATE

6.5.1 Update of Municipal Mitigation Strategies

To evaluate progress on local mitigation actions, each jurisdiction was provided with a Mitigation Action Plan Review Worksheet, pre-populated with those actions identified for their jurisdiction in the prior (2014) plan. For each action, municipalities were asked to indicate the status of each action (“No Progress/Unknown,” “In Progress/Not Yet Complete,” “Ongoing,” “Completed,” or “Discontinued”) and provide review comments on each. Municipalities were requested to quantify the extent of progress and provide reasons for the level of progress or why actions were discontinued. Each jurisdictional annex provides a table identifying their prior mitigation strategy, the status of those actions and initiatives, and their disposition within their updated strategy.

Local mitigation actions identified as “Complete,” and actions identified as “Discontinued,” have been removed from the updated strategies. Those local actions that municipalities identified as “No Progress/Unknown” or “In Progress/Not Yet Complete,” as well as certain actions/initiatives identified as “Ongoing,” have been carried forward in their local updated mitigation strategies. Actions considered ongoing capabilities were marked as “Discontinued” and included in the plan as ongoing capabilities. Municipalities were asked to provide further details on these projects to help better define the projects, identify benefits and costs, and improve implementation.

At the kick-off meeting and during subsequent local-level planning meetings, all participating municipalities were further surveyed to identify mitigation activities completed, ongoing and potential/proposed. As new additional potential mitigation actions, projects or initiatives became evident during the plan update process, including as part of the risk assessment update and as identified through the public and stakeholder outreach process (see Section 3 – Planning Process), communities were made aware of these either through direct communication (local meetings, email, phone) or via their draft municipal annexes.

To help support the selection of an appropriate, risk-based mitigation strategy, each annex provided a summary of hazard vulnerabilities identified during the plan update process, either directly by municipal representatives or through review of available county and local plans and reports, and through the hazard profiling and vulnerability assessment process.

Beginning in June 2021, members of the Steering Committee worked directly with each jurisdiction (phone, email, local meetings) to assist with the development and update of their annex and include mitigation strategies, focusing on identifying well-defined, implementable projects with a careful consideration of benefits (risk reduction, losses avoided), costs, and possible funding sources (including mitigation grant programs).

Concerted efforts were made to assure that municipalities develop updated mitigation strategies that included activities and initiatives covering the range of mitigation action types described in FEMA planning guidance (FEMA “Local Mitigation Planning Handbook” March 2013), specifically:

- Local Plans and Regulations – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project- These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.



- Natural Systems Protection – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- Education and Awareness Programs – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as the National Flood Insurance Program and Community Rating System, StormReady (NOAA) and Firewise (NFPA) Communities.

A mitigation strategy workshop was conducted by the County’s planning consultant on September 8, 2021, for all participating jurisdictions to support the development of focused problem statements based on the impacts of natural hazards in the county and their communities. These problem statements are intended to provide a detailed description of the problem area, including its impacts to the municipality/jurisdiction; past damages; loss of service; etc. An effort was made to include the street address of the property/project location, adjacent streets, water bodies, and well-known structures as well as a brief description of existing conditions (topography, terrain, hydrology) of the site. These problem statements form a bridge between the hazard risk assessment which quantifies impacts to each community with the development of actionable mitigation strategies.

A strong effort has been made to better focus local mitigation strategies to clearly defined, readily implementable projects and initiatives that meet the definition or characteristics of mitigation. Broadly defined mitigation objectives have been eliminated from the updated strategy unless accompanied by discrete actions, projects, or initiatives.

Certain continuous or ongoing strategies that represent programs that are or have become fully integrated into the normal operational and administrative framework of the community have been identified within the Capabilities section of each annex and removed from the updated mitigation strategy.

At least two mitigation projects per jurisdiction have been documented with an Action Worksheet, as per the New York State Hazard Mitigation Planning Standards Guide.

As discussed within the hazard profiles in Section 5.4 (Risk Assessment), the long-term effects of climate change are anticipated to exacerbate the impacts of weather-related hazards including flood, severe storm, severe winter storm, and wildfire. To address these climate change-sensitive hazards within their local mitigation strategies and integration actions, communities are working to evaluate and recognize these long-term implications and potential impacts, and to incorporate in planning and capital improvement updates.

Municipalities included mitigation actions to address vulnerable critical facilities. These actions have been proposed in consideration of protection against 0.2% annual chance (500-year) events, or worst-case scenarios. It is recognized, however, that in the case of projects being funded through federal mitigation programs, the level of protection may be influenced by cost-effectiveness as determined through a formal benefit-cost analysis. In the case of “self-funded” projects, municipal discretion must be recognized. Further, it must be recognized that the county and municipalities have limited authority over privately-owned critical facility owners with regard to mitigation at any level of protection.

6.5.2 Update of County Mitigation Strategy

The update of the county-level mitigation strategies included a review of progress on the actions/initiatives identified in the 2015 HMP, using a process similar to that used to review municipal mitigation strategy progress. The county, through their various department representatives, was provided with a Mitigation Action Plan Review Worksheet identifying all of the county-level actions/initiatives from the 2015 plan. The county reviewed each action and provided progress. For each action, relevant county representatives were asked to



indicate the status of each action (“No Progress/Unknown,” “In Progress/Not Yet Complete,” Ongoing,” “Completed,” or “Discontinued”), and provide review comments on each.

Projects/initiatives identified as “Complete,” as well as those actions identified as “Discontinued,” have been removed from this plan update. Those actions the county has identified as “No Progress/Unknown,” “In Progress/Not Yet Complete” or “Ongoing” have been carried forward in the county’s updated mitigation strategy. Actions considered ongoing capabilities were marked as “Discontinued” and included in the plan as ongoing capabilities.

Throughout the course of the plan update process, additional regional and county-level mitigation actions have been identified. These were identified through:

- Review of the results and findings of the updated risk assessment;
- Review of available regional and county plans reports and studies;
- Direct input from county departments and other county and regional agencies, including:
 - Livingston County Office of Emergency Management
 - Livingston County Planning Department
 - Livingston County Highway Department
 - Livingston County Soil and Water Conservation District
 - New York State Division of Homeland Security and Emergency Services
- Input received through the public and stakeholder outreach process.

As discussed within the hazard profiles in Section 5.4 (Risk Assessment), the long-term effects of climate change are anticipated to exacerbate the impacts of weather-related hazards including drought, earthquake, flood, invasive species, severe storm, severe winter storm, and wildfire. The county has included mitigation actions and initiatives, including continuing and long-term planning and emergency management support, to address these long-term implications and potential impacts.

Various county departments and agencies have included mitigation actions to address vulnerable critical facilities. These actions have been proposed in consideration of protection against 500-year events, or worst-case scenarios.

It is recognized, however, that in the case of projects being funded through federal mitigation programs, the level of protection may be influenced by cost-effectiveness as determined through a formal benefit-cost analysis. In the case of “self-funded” projects, local government authority may affect the ability to implement. Further, it must be recognized that the county has limited authority over privately owned critical facility owners with regard to mitigation at any level of protection.

6.5.3 Mitigation Strategy Evaluation and Prioritization

Section 201.c.3.iii of 44 CFR requires how the identified mitigation strategies will be prioritized, implemented, and administered by the local jurisdictions. For this plan update, each mitigation strategy was prioritized using a modified STAPLEE (Social, Technical, Administrative, Political, Legal, Economic, and Environmental) mitigation action evaluation methodology based on a set of evaluation criteria suited to the purposes of hazard mitigation strategy evaluation. This method provides a systematic approach that considers the opportunities and constraints of implementing a particular mitigation action.

The Steering Committee applied an action evaluation and prioritization methodology that includes an expanded set of fourteen (14) criteria to include the consideration of cost-effectiveness, availability of funding, anticipated



timeline, and if the action addresses multiple hazards. The 14 evaluation/prioritization criteria used in the 2022 update process are:

1. Life Safety – How effective will the action be at protecting lives and preventing injuries?
2. Property Protection – How significant will the action be at eliminating or reducing damage to structures and infrastructure?
3. Cost-Effectiveness – Are the costs to implement the project or initiative commensurate with the benefits achieved?
4. Technical – Is the mitigation action technically feasible? Is it a long-term solution? Eliminate actions that, from a technical standpoint, will not meet the goals.
5. Political – Is there overall public support for the mitigation action? Is there the political will to support it?
6. Legal – Does the municipality have the authority to implement the action?
7. Fiscal - Can the project be funded under existing program budgets (i.e., is this initiative currently budgeted for)? Or would it require a new budget authorization or funding from another source such as grants?
8. Environmental – What are the potential environmental impacts of the action? Will it comply with environmental regulations?
9. Social – Will the proposed action adversely affect one segment of the population? Will the action disrupt established neighborhoods, break up voting districts, or cause the relocation of lower income people?
10. Administrative – Does the jurisdiction have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?
11. Multi-hazard – Does the action reduce the risk to multiple hazards?
12. Timeline - Can the action be completed in less than 5 years (within our planning horizon)?
13. Local Champion – Is there a strong advocate for the action or project among the jurisdiction’s staff, governing body, or committees that will support the action’s implementation?
14. Other Local Objectives – Does the action advance other local objectives, such as capital improvements, economic development, environmental quality, or open space preservation? Does it support the policies of other plans and programs?

Participating jurisdictions were asked to use these criteria to assist them in evaluating and prioritizing mitigation actions identified in the 2022 update. Specifically, for each mitigation action, the jurisdictions were asked to assign a numeric rank (1, 0, or -1) for each of the 14 evaluation criteria, defined as follows:

- 1 = Highly effective or feasible
- 0 = Neutral
- -1 = Ineffective or not feasible

Further, jurisdictions were asked to provide a brief summary of the rationale behind the numeric rankings assigned, as applicable. The numerical results were totaled and then used by each jurisdiction to help prioritize the action or strategy as *low*, *medium*, or *high*. Actions that had a numerical value between 0 and 4 were categorized as *low*; actions with numerical values between 5 and 9 were categorized as *medium*; and actions with numerical values between 10 and 14 were categorized as *high*. While this provided a consistent, systematic methodology to support the evaluation and prioritization of mitigation actions, jurisdictions may have additional considerations that could influence their overall prioritization of mitigation actions.

It is noted that jurisdictions may be carrying forward mitigation actions and initiatives from prior mitigation strategies that were prioritized using a different, but not inherently contrary, approach. Mitigation actions in the prior (2015) Livingston County HMP were “qualitatively evaluated against the mitigation goals and objectives



and other evaluation criteria. They were then prioritized into three categories: high, medium, and low.” At their discretion, jurisdictions carrying forward prior initiatives were encouraged to re-evaluate their priority, particularly if conditions that would affect the prioritization criteria had changed.

For the plan update, there has been an effort to develop more clearly defined and action-oriented mitigation strategies. These local strategies include projects and initiatives that are seen by the community as the most effective approaches to advance their local mitigation goals and objectives within their capabilities. In addition, each municipality was asked to develop problem statements. With active support from NYS DHSES planning staff, municipalities were able to develop action-oriented and achievable mitigation strategies.

As such, many of the initiatives in the updated mitigation strategy were ranked as *high* or *medium* priority, as reflective of the community’s clear intent to implement them, available resources notwithstanding. In general, initiatives that would have had *low* priority rankings were appropriately screened out during the local action evaluation process.

6.5.4 Benefit/Cost Review

Section 201.6.c.3iii of 44CFR requires the prioritization of the action plan to emphasize the extent to which benefits are maximized according to a cost/benefit review of the proposed projects and their associated costs. Therefore, cost-effectiveness is one of the criteria that must be applied during the evaluation and prioritization of all actions comprising the overall mitigation strategy.

The benefit/cost review applied for the evaluation and prioritization of projects and initiatives in this plan update process was qualitative; that is, it does not include the level of detail required by FEMA for project grant eligibility under the Hazard Mitigation Assistance (HMA) grant programs. For all actions identified in the local strategies, jurisdictions have identified both the costs and benefits associated with project, action or initiative.

Costs presented include the total project estimation. This can include administrative, construction (engineering, design, and permitting), and maintenance costs.

Benefits are the savings from losses avoided attributed to project implementation. These can include life safety, structure and infrastructure damage, loss of service or function, and economic and environmental damage and losses.

When possible, jurisdictions were asked to identify the actual or estimated dollar costs and associated benefits. Often numerical costs and/or benefits were not identified and may be impossible to quantify. In this case, jurisdictions were asked to evaluate project cost-effectiveness using *high*, *medium*, and *low* ratings. Where estimates of costs and benefits were available, the ratings were defined as the following:

Low <= \$10,000 Medium = \$10,000 to \$100,000 High >=\$100,000

Where quantitative estimates of costs and/or benefits were not available, qualitative ratings using the following definitions were used:



Table 6-3 Qualitative Cost and Benefit Ratings

Costs	
High	Existing funding levels are not adequate to cover the costs of the proposed project, and implementation would require an increase in revenue through an alternative source (e.g., bonds, grants, and fee increases).
Medium	The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
Low	The project could be funded under the existing budget. The project is part of or can be part of an existing, ongoing program.
Benefits	
High	Project will have an immediate impact on the reduction of risk exposure to life and property.
Medium	Project will have a long-term impact on the reduction of risk exposure to life and property or will provide an immediate reduction in the risk exposure to property.
Low	Long-term benefits of the project are difficult to quantify in the short term.

Using this approach, projects with positive benefit versus cost ratios (such as high over high, high over medium, medium over low, etc.) are considered cost-effective.

For some of the Livingston County initiatives identified, the Planning Partnership may seek financial assistance under FEMA’s Hazard Mitigation Assistance (HMA) programs. These programs require detailed benefit/cost analysis as part of the application process. These analyses will be performed when funding applications are prepared, using the FEMA BCA model process. The Planning Partnership is committed to implementing mitigation strategies with benefits that exceed costs. For projects not seeking financial assistance from grant programs that require this sort of analysis, the Planning Partnership reserves the right to rate each benefit according to parameters that meet its needs and the goals and objectives of this plan.