



SECTION 9. JURISDICTIONAL ANNEXES

9.1 COUNTY OF BURLINGTON

This section presents the jurisdictional annex for the County of Burlington that provides resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions to reduce or eliminate damage to property and people that can be implemented prior to a disaster. Information presented includes a general overview of the municipality, who in the County of Burlington participated in the planning process, an assessment of the County of Burlington's risk and vulnerability, the different capabilities used in the County of Burlington, and an action plan that will be implemented to achieve a more resilient community.

9.1.1 Hazard Mitigation Planning Team

The County of Burlington identified the hazard mitigation plan primary and alternate points of contact and developed this plan over the course of several months with input from many County of Burlington departments, including Emergency Management, Department of Health, Information and Technology, Fire Marshal, and Transportation. The Deputy Emergency Management Coordinator represented the community on the Burlington County Hazard Mitigation Planning Partnership and supported the local planning process requirements by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

The following table summarizes municipal officials that participated in the development of the annex and in what capacity. Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Volume 1, Section 2 (Planning Process) and Appendix C (Meeting Documentation).

Table 9.1-1. Hazard Mitigation Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name/Title:	Kristen Carr, Deputy OEM Coordinator	Name/Title:	Darryl William, OEM Coordinator
Address:	Public Safety Building, 1 Academy Drive Westampton, NJ 08060	Address:	Public Safety Building, 1 Academy Drive Westampton, NJ 08060
Phone Number:	(609) 265-7137	Phone Number:	(609) 265-7165
Email:	krcarr@co.burlington.nj.us	Email:	dtwilliams@co.burlington.nj.us
NFIP Floodplain Administrator			
Floodplain Administration is conducted at the municipal level			
Additional Contributors:			
Name/Title:	Kristen Carr, Deputy OEM Coordinator		
Method of Participation:			



	Participated in all meetings, provided information on previous events and capabilities. Contributed to mitigation strategy.
Name/Title:	Darryl William, OEM Coordinator
Method of Participation:	Participated in all Steering Committee and Planning Partnership meetings.
Name/Title:	Robert Carr Jr., Fire Marshal
Method of Participation:	Completed the SWOO exercise. Participated in Steering Committee and Planning Partnership meetings.
Name/Title:	Madison Hoff, Assistant Planner
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Todd Wirth, County Administrator
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	David Levinsky, Public Information Officer
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Jerome Kilkenny, Transportation Coordinator
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Thomas Stanuikynas, County Planner
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Monquie Davis, Assistant Health Officer
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	David Rickert, GIS Specialist 2
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Madison Hoff, Assistant Planner
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Michael Patton, Assistant Director of Information Technology
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Joe Birkley, Director of Public Works
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Merrilee Torres, GIS Specialist 1, GIS Supervisor
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Jerome Sheehan, Director of the Division of Solid Waste
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Herbert Conway, Director of the Department of Health
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Kevin Savage, Director of the Department of Information Technology
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Jalen Singleton, Data Specialist
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Mary Pat Robbie, Director of the Department of Resource Conservation
Method of Participation:	Participated in Steering Committee and Planning Partnership meetings
Name/Title:	Thomas Stanuikynas, County Planner
Method of Participation:	Completed review of County actions
Name/Title:	Steven Stypinski, Director of Construction Services
Method of Participation:	Completed review of County actions
Name/Title:	Malikah Morris Human Services Director
Method of Participation:	Completed review of County actions
Name/Title:	Elfrieda Francis, Division Head for Behavioral Health
Method of Participation:	Completed review of County actions
Name/Title:	John Janis, County Supervisor of Roads and Bridges
Method of Participation:	Completed review of County actions
Name/Title:	Kevin Briggs, Executive Supervisor for the Department of Public Safety
Method of Participation:	Completed review of County actions



Name/Title:	Jeremy Hreben, Superintendent of Parks
Method of Participation:	Completed review of County actions

9.1.2 Municipal Profile

Please refer to Section 4, Volume I of this HMP for details on Burlington County’s population, location, climate, history, growth, and development.

According to the U.S. Census, the 2020 population for County of Burlington was 461,860, a 9.7 percent increase from the 2010 Census. Data from the 2021 American Community Survey 5-Year Population Estimates indicate that 16.9 percent is 65 years of age or older, 5.1 percent of the population is 5 years of age or younger, 2 percent is non-English speaking, 11.2 percent has a disability, and 6.1 percent is below the poverty level. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.1.3 Jurisdictional Capability Assessment and Integration

The County of Burlington performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume 1, Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment includes the following analyses:

- An assessment of legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community’s adaptive capacity to withstand hazard events.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of the hazard mitigation analysis, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. The updated mitigation strategy provided an opportunity for the County of Burlington to identify opportunities for integration of mitigation concepts that can be incorporated into municipal procedures.

Planning, Legal, and Regulatory Capability and Integration

The table below summarizes the regulatory tools that are available to the County of Burlington. The comment field provides information as to how the capability integrates hazard mitigation and risk reduction.



Table 9.1-2. Planning, Legal, and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
Codes, Ordinances, & Regulations				
Building Code	No	-	-	-
<i>How does this reduce risk?</i>				
Zoning/Land Use Code	No	-	-	-
<i>How does this reduce risk?</i>				
Subdivision Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Site Plan Ordinance	Yes	Burlington County Land Development Review Resolution, February 2024	County	Planning Board
<i>How does this reduce risk?</i> This Resolution provides the standards and procedures for the Burlington County Planning Board (BCPB) review and approval of land developments within Burlington County. By adoption of this Resolution the Burlington County Board of County Commissioners seeks to provide standards for the safety of the travelling public and to provide adequate drainage on and along Burlington County roads and to ensure that land development throughout Burlington County proceeds in accordance with the County master plans and other adopted county plans and with the goals and policies of the Burlington County Board of County Commissioners and the Burlington County Planning Board.				
Stormwater Management Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Post-Disaster Recovery/ Reconstruction Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Real Estate Disclosure	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
<i>How does this reduce risk?</i> For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days. The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred. The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<p>For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.</p> <p>The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:</p> <ul style="list-style-type: none">Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times? <p>Not all provisions of this law have become effective at the time of the writing of this plan.</p>				
Growth Management	No	-	-	-
<i>How does this reduce risk?</i>				
Environmental Protection Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Flood Damage Prevention Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Wellhead Protection	No	-	-	-
<i>How does this reduce risk?</i>				
Emergency Management Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Climate Change Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Other	No	-	-	-
<i>How does this reduce risk?</i>				
Planning Documents				
Comprehensive/Master Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Capital Improvement Plan	Yes	6-year Capital Improvements Plan, 2023-2029	County	Engineering
<i>How does this reduce risk?</i>				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
Identifies capital projects and equipment purchases, provides a planning schedule, and identifies options for financing the plan.				
Disaster Debris Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Floodplain Management or Watershed Plan	Yes	Watershed Management Plan for Rancocas Creek – “Clean and Plentiful Water: A Management Plan for the Rancocas Creek”, March 2003	County	Resource Conservation Department
<i>How does this reduce risk?</i> The Watershed Management Plan for Rancocas Creek outlines the comprehensive strategy for identifying water quality problems in the Rancocas Creek Watershed Management Area and develops a broad range of practical solutions to address the identified problems.				
Stormwater Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Stormwater Pollution Prevention Plan	Yes	Highway Agency Stormwater Pollution Prevention Plan, April 2022	County	Burlington County Bridge Commission
<i>How does this reduce risk?</i> The Stormwater Pollution Prevention Plan is used to identify all potential pollution sources that could come into contact with stormwater leaving a site. This plan includes the following elements: <ul style="list-style-type: none"> • Site map and description • Descriptions of activities that could cause pollution • Best Management Practices & control measures for preventing pollution • Procedures for conducting inspections and monitoring • Plans for keeping your SWPPP up to date 				
Open Space Plan	Yes	Parks, Recreation, and Open Space Master Plan; 2002	County	Resource Conservation Department
<i>How does this reduce risk?</i> The Parks and Open Space Master Plan sets forth a short- and long-term strategies for the acquisition of open space and the development of a parks system that will meet the region’s recreational needs. This blueprint creates a vision for the communities of Burlington County and recommends policies, actions, and strategies to be implemented by not only the County, but also by local, state, and federal governmental agencies, as well as the private and non-profit sectors. This vision and the recommendations reflect input from all of those entities, the communities at large, and the general public. The plan sets forth four key goals that resulted from the dialogue with the public: <ul style="list-style-type: none"> • Create a County parks system that expands public access to diverse, passive recreational facilities, • Aggressively protect the County’s significant natural resources, • Preserve and enhance the culture and heritage of Burlington County, and • Coordinate park system development and open space preservation with compatible growth, preservation, and recreation initiatives. 				
Urban Water Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Habitat Conservation Plan	Yes	Pinelands Comprehensive Management Plan, May 2022	State	Pinelands Commission
<i>How does this reduce risk?</i> This Plan is intended, therefore, to serve two functions: as a general guide for local authorities in preparing master plans and land use ordinances for certification by the Commission, and as a planning and regulatory mechanism that can be adopted and enforced by the Commission if a county or municipality fails to secure certification. Conformance of municipal master plan and land use ordinances required. Within one year after the effective date of this Plan, or any amendment hereof, each municipality with jurisdiction over land located within the Pinelands Area shall conform its master plan and land use ordinances applicable to such land to the minimum standards of this Plan.				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
Economic Development Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Shoreline Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Community Wildfire Protection Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Community Forest Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Transportation Plan	Yes	Burlington County Transportation Plan, June 2007; Burlington County Highway Master Plan 2021	County	United We Ride. Burlington County Administration
<i>How does this reduce risk?</i>				
Burlington County Transportation Plan This coordinated plan provides a unified, comprehensive strategy for public transportation service delivery that identifies the transportation needs of individuals with disabilities, older adults, and individuals with limited incomes, lays out strategies for meeting these needs and prioritizes services. The Plan maximizes the programs' collective coverage by minimizing duplication of services. Further, the coordinated plan was developed through a process that included representatives of public, private and nonprofit transportation and human services providers, and participation by the public. In addition, the coordinated plan incorporates activities offered under other programs sponsored by Federal, State, and local agencies to greatly strengthen its impact.				
Burlington County Highway Master Plan The foundation of the Burlington County Highway Master Plan is based on the goals to maintain existing county highway infrastructure and modernize it to meet current and future demands and to have adequate rights-of-way provided for future road widening and intersection improvements.				
Agriculture Plan	Yes	Burlington County Comprehensive Farmland Preservation Plan, 2022	County	Agriculture Development Board
<i>How does this reduce risk?</i>				
This Plan acknowledges that county and municipal investment in farmland preservation must be complimented with investment by other preservation partners and innovative planning / zoning techniques in order to meet the County's goal of preserving an additional 10,000 acres. With this in mind, this Plan calls for 5,000 acres to be preserved through the County's Farmland Preservation Program with the additional 5,000 acres to be preserved via measures that include State Agriculture Development Committee acquisitions, local Transfer of Development Rights Programs, and the Pinelands Development Credit Program. The County's Farmland Preservation efforts will be focused on four (4) project areas in which future acquisition efforts will be concentrated. These project areas build on existing contiguous blocks of preserved farmland and are consistent with all known local and regional economic development and planning objectives.				
Climate Action/ Resiliency/Sustainability Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Tourism Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Business/ Downtown Development Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Other	Yes	Wastewater Management Plan, November 2016	County	Resource Conservation Department
<i>How does this reduce risk?</i>				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<p>Wastewater Management Planning is part of the continuing planning process required by the New Jersey Water Quality Planning Act (N.J.S.A. 58:11A-1 et seq.) and Section 208 of the federal Clean Water Act. The intent of the continuing planning process is to align federal, state, regional and local land use planning to ensure that these land use plans do not conflict with each other.</p> <p>The provision of environmental infrastructure, in particular centralized sewer service, has a profound influence on development patterns and intensity. The wastewater management planning process is intended to assign an appropriate wastewater management treatment solution to geographic areas based on environmental sensitivity and other land use planning objectives such as regional center-based development or farmland preservation. The extension of public sewers into areas designated for protection by federal, State, regional or local land use plans would be inconsistent with those protection objectives.</p> <p>Additional regional and local land use planning objectives used in delineating appropriate areas for public sewer service are discussed in the Pinelands, Coastal, & Delaware River Basin Section of this WMP. The delineation of future wastewater service areas recognizes and incorporates existing patterns of development and public infrastructure, including existing sewers. It also integrates County planning efforts in the Route 130 corridor and in the northern Burlington County area, as well as the County Farmland Preservation Plan, the Pinelands Comprehensive Management Plan, and the Coastal Area Facilities Act.</p>				
Other	Yes	Burlington County Highway Master Plan, October 2021	County	Transportation
<p><i>How does this reduce risk?</i></p> <p>The Delaware Valley Regional Planning Commission (DVRPC) was commissioned to update the Highway Master Plan to supply a vision and implementation framework for the County highway network that can sustainably complement long-term County growth patterns. The foundation of the Burlington County Highway Master Plan is based on the goals to maintain existing county highway infrastructure and modernize it to meet current and future demands and to have adequate rights-of-way provided for future road widening and intersection improvements.</p> <p>The County Route (CR) network is vital to everyday movement in the County, and it plays an important role in interconnecting with the New Jersey Turnpike and interstate highway system. The CR Network carries NJ Transit and BurLink bus routes, provides access to stations along the NJ Transit RiverLINE, and serves as a scenic route network in the Pinelands.</p> <p>Performance indicators for the road network, as well as land use conditions, were assembled for current and forecasted conditions. The conditions were assessed using DVRPC's Traffic Management Process (TMP) to identify candidate improvement strategies for the County road network.</p>				
Response/Recovery Planning				
Emergency Operations Plan	Yes	Burlington County Emergency Operations Plan	County	Emergency Management
<p><i>How does this reduce risk?</i></p> <p>The Emergency Operations Plan aims to assess the County's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.</p>				
Continuity of Operations Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Strategic Recovery Planning Report	No	-	-	-
<i>How does this reduce risk?</i>				
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	-	-
<i>How does this reduce risk?</i>				
Post-Disaster Recovery Plan	Yes	Burlington County Emergency Operations Plan, ESF 14 – Infrastructure Restoration and Long-Term Recover	County	Emergency Management
<i>How does this reduce risk?</i>				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
The purpose of the post-disaster recovery plan is to facilitate pre-disaster planning in a way that guides long-term recovery efforts following a disaster. The post-disaster recovery plan identifies roles and responsibilities of key people, departments, and agencies.				
Public Health Plan	Yes	Community Health Improvement Plan, 2014	County	Health Department
<i>How does this reduce risk?</i> The Burlington County Health Department's (BCHD) Community Health Improvement Plan (CHIP) is a summation of health disparity in the County and interventions to guide efforts to keep residents healthy. With data gathered from the Tri-County Health Assessment Collaborative, Burlington County worked with Camden County, Gloucester County, local area hospitals and health systems to conduct a comprehensive regional community health needs assessment (CHNA). From September 2012 to June 2013, the counties, partners, and residents were contributing valuable information to help identify areas of health concern to be targeted for strategic interventions.				
Other	No	-	-	-
<i>How does this reduce risk?</i>				

Development and Permitting Capability

The table below summarizes the capabilities of the County of Burlington to oversee and track development.

Table 9.1-3. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Yes/No	Comment:
Do you issue development permits? • If yes, what department is responsible?	No	-
If you do not issue development permits, what is your process for tracking new development?	N/A	Permits are issued at the municipal level. Burlington County Planning Board will review and approve developments that fall underneath its regulations but does not issue permits for development.
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	Not applicable
Do you have a buildable land inventory? • If yes, please describe	No	-
Describe the level of build-out in your jurisdiction.	N/A	There are wide areas still available for development in the County, but much of the County is preserved land.

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the County of Burlington and their current responsibilities that contribute to hazard mitigation.

Table 9.1-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Administrative Capability		



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Planning Board	Yes	The Planning Board is responsible for reviewing proposed development projects and making decisions on them in accordance with state statutes and local bylaws and regulations. The Planning Board is also charged with long-range planning for the County.
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	Burlington County Public Works
Construction/Building/Code Enforcement Department	No	-
Emergency Management/Public Safety Department	Yes	The Burlington County Office of Emergency Management exists to serve the emergency needs of the community whether it be a natural disaster, major storm system, long-term power outages, chemical or hazardous material incident, or terrorist threat.
Warning Systems / Services (mass notification system, outdoor warning signals, etc.)	Yes	Burlington County utilizes CivicReady in order to keep constituents informed during fires, outages, floods, hurricanes, evacuations, road closures and more. All notifications are delivered for the sole purpose of delivering emergency messages and public notifications that are time sensitive in order to increase the safety and security within the County. Additionally, this service is also extended to the forty (40) municipalities within Burlington County.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Burlington County Public Works
Mutual aid agreements	Yes	Various departments
Human Resources Manual <i>e.g., Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?</i>	Yes	No job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk.
Other	No	-
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Engineering Department
Engineers or professionals trained in building or infrastructure construction practices	Yes	Engineering/staff of inspectors and licensed engineers
Planners or engineers with an understanding of natural hazards	Yes	Engineering and Planning Board
Staff with expertise or training in benefit/cost analysis	Yes	Engineering division has personnel trained in FEMA BCA
Professionals trained in conducting damage assessments	Yes	County Engineering Department



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Burlington County Department of Information Technology has a GIS Coordinator. The Engineering Division has personnel skilled in GIS.
Environmental scientist familiar with natural hazards	Yes	Health Department and Soil Conservation Staff
Surveyor(s)	Yes	The Engineering Division has a surveying section
Emergency Manager	Yes	Office of Emergency Management.
Grant writer(s) <i>Consider the following - Are data and maps from the HMP used to support documentation in grant applications?</i>	Yes	The Administrator's office has a dedicated grant specialist.
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

Fiscal Capability

The table below summarizes financial resources available to the County of Burlington.

Table 9.1-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	Yes
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Corridor Enhancement Funds

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the County of Burlington.

Table 9.1-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment:
Public information officer or communications office	Yes	The County has an identified Public Information Officer. The Public Information Office stands ready to field and respond to any questions or inquiries you have regarding county departments and offices, activities supported by



Outreach Resources	Available? (Yes/No)	Comment:
		the Burlington County Board of County Commissioners, and programs and services.
Personnel skilled or trained in website development	Yes	Internal staff
Hazard mitigation information available on your website	Yes	The Emergency Management webpage has an area dedicated to providing the community with information that can assist with personal safety and preparedness efforts, and further identifies what it means to be prepared and how to do it effectively. The HMP is also available on the Emergency Management webpage. Furthermore, environmental information can be found on the Environmental Services page about resource conservation and wastewater management.
Social media for hazard mitigation education and outreach	Yes	The County has Facebook and X (formerly Twitter) accounts which it can utilize for hazard mitigation education and outreach.
Citizen boards or commissions that address issues related to hazard mitigation	Yes	County's Agriculture Development Board (CADB), Human Services Advisory Council.
Warning systems for hazard events	Yes	Burlington County utilizes CivicReady in order to keep constituents informed during fires, outages, floods, hurricanes, evacuations, road closures and more. All notifications are delivered for the sole purpose of delivering emergency messages and public notifications that are time sensitive in order to increase the safety and security within the County. Additionally, this service is also extended to the forty (40) municipalities within Burlington County.
Natural disaster/safety programs in place for schools	No	-
Does the jurisdiction have any public outreach mechanisms / programs in place to inform citizens on natural hazards, risk, and ways to protect themselves during such events? • If yes, please describe.	Yes	CivicReady and social media.

Community Classifications

The table below summarizes classifications for community programs available to the County of Burlington.

Table 9.1-7. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-



Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other	No	-	-

Note:

N/A Not applicable

NP Not participating

- Unavailable

Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2014). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. The table below summarizes the adaptive capacity for each identified hazard of concern and the jurisdiction’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement.

Table 9.1-8. Adaptive Capacity

Hazard	Adaptive Capacity – Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Strong
Drought	Moderate
Earthquake	Moderate
Extreme Temperatures	Strong
Flood	Moderate
Severe Weather	Moderate
Severe Winter Weather	Strong
Wildfire	Moderate

9.1.4 National Flood Insurance Program (NFIP) Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the NFIP.

NFIP Floodplain Administrator (FPA)

Floodplain Administration is conducted at the municipal level.



National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the County of Burlington.

Table 9.1-9. NFIP Summary

Active Policies	Total Premium + Policy Fee	Number of Losses	Total Net Payment	Repetitive Loss Properties
NFIP statistics are identified in each municipal annex.				

Source: NFIP 2023

Notes: Data current as of October 2023

RL Repetitive Loss

SRL Severe Repetitive Loss

RL FMA Definition Any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on the average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

RL NFIP Definition Any insurable building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978.

Flood Vulnerability Summary

The following table provides a summary of the NFIP program in the County of Burlington.

Table 9.1-10. NFIP Summary

NFIP Topic	Comments
Floodplain Administration is conducted at the municipal level.	

9.1.5 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. The table below summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development.

Table 9.1-11. Number of Building Permits for New Construction

Type of Development	2018		2019		2020		2021		2022	
Number of Building Permits for New Construction Issued Since the previous HMP* (total/within regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	Permitting is carried out at the local level.									
Multi-Family										
Other (commercial, mixed-use, etc.)										
Total Permits Issued										

SFHA Special Flood Hazard Area (1% annual chance flood event)

* Only location-specific hazard zones or vulnerabilities identified.



Table 9.1-12. Recent and Expected Future Development

Property or Development Name	Type (e.g., Res., Comm.)	# of Units / Structures	Address and Parcel ID	Known Hazard Zone(s)	Description/Status of Development
Recent Major Development from 2019 to Present					
No major County owned development since 2019 was identified.					
Known or Anticipated Major Development in the Next Five (5) Years					
No major County owned development is anticipated in the next five years.					

9.1.6 Jurisdictional Risk Assessment

The hazard profiles in Volume 1, Section 4 (Risk Assessment) provide detailed information regarding each plan participant's vulnerability to the identified hazards. Section 4.2 (Methodology) and Section 4.4 (Hazard Ranking) provide detailed summaries for the County of Burlington's risk assessment results and data used to determine the hazard ranking discussed later in this section.

Hazard area extent and location maps provided in the municipal annexes illustrate the probable areas impacted within the jurisdiction based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps were generated only for those hazards that can be identified clearly using mapping techniques and technologies and for which the County of Burlington has significant exposure. The maps also show the location of potential new development, where available.

Hazard Event History

Burlington County has a history of natural and non-natural hazard events, as detailed in Volume I, Section 4 (Risk Assessment). A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities.

The County of Burlington's history of federally declared (as presented by FEMA) and significant hazard events [as presented in NOAA-National Centers for Environmental Information (NCEI)] is consistent with that of the County. The table below provides details regarding municipal-specific loss and damages the County of Burlington experienced during hazard events since the last hazard mitigation plan update. Information provided in the table below is based on reference material or local sources. For more information on hazard events, refer to Volume I Section 4 (Risk Assessment).



Table 9.1-13. Hazard Event History Since 2019

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
March 6-7, 2018	Severe Winter Storm (DR-4368)	Yes	Banding and thundersnow produced pockets of heavier snow in the western sections of the area, closer to the Delaware River. The snow contained large amounts of liquid, making it heavy and wet. This resulted in downed trees, limbs, and wires, leading to numerous power outages across portions of New Jersey.	Snow removal needs were significant.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Burlington County accounted for 115,985 positive cases of Covid-19 in the State of New Jersey, and 1,265 of the reported deaths. A total of 991,269 vaccinations were delivered in the County to both residents and non-residents.	Buildings and Grounds was responsible for Covid cleaning of County facilities. The County was subject to closures and masking/social distancing requirements.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Burlington County; some areas of the County reported more than 6 inches over several hours. Burlington County Central Communications fielded over 400 emergency calls and 1,400 non-emergency calls, many for flooded basements and residences.	The County's indoor firing range was flooded.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, and a tornado (EF-1) that moved through Edgewater Park, Beverly, Burlington Township and Burlington City. Rainfall totals exceed 3 inches in parts of County; 4 water rescues occurred due to flash flooding.	Flash flooding throughout the County led to water rescues.

Source: FEMA 2023, NOAA NCEI 2023

Notes:

DR Major Disaster Declaration (FEMA)

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

N/A Not applicable



Hazard Ranking and Vulnerabilities

The hazard profiles in Volume 1, Section 4 (Risk Assessment) have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the County of Burlington's risk assessment results and data used to determine the hazard ranking.

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Volume 1, Section 4 (Risk Assessment). The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; and community capabilities to address the hazard and changing future climate conditions. Mitigation action development uses the inputs from the evaluation to target those hazards with highest level of concern.

As discussed in Volume 1, Section 4.4 (Hazard Ranking), each participating jurisdiction has differing degrees of risk exposure and vulnerability compared with the County as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the County of Burlington. The County of Burlington reviewed the County hazard risk/vulnerability risk ranking table and individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the County of Burlington indicated the following:

- Due to its frequency of occurrence, the County elected to increase the flood hazard ranking from low to medium.
- The County agreed with the remainder of the calculated hazard rankings.

Table 9.1-14. Hazard Ranking Input

Hazard	Hazard Ranking – High/Medium/Low
Dam Failure	Medium
Disease Outbreak	Medium
Drought	Low
Earthquake	Low
Extreme Temperatures	Medium
Flood	Medium
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Medium

Critical Facilities

The table below identifies critical facilities and lifelines in the community located in the 1-percent and 0.2-percent floodplain and presents Hazus-MH estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.



Table 9.1-15. Potential Flood Losses to Critical Facilities and Community Lifelines

Name	Type	Exposure	
		1% Event	0.2% Event
152 - Library Company of Burlington	County Building	N	Y
166 - Dr Philson's Office-Burlington FPC	County Building	Y	Y
170 - Heureka Center-Burlington WIC	County Building	Y	Y
201 - Riverside American Legion Post no146-WIC	County Building	Y	Y
241 - Sr. Citizens Nutrition Program-Burlington	County Building	Y	Y
252 - Sec no5 - New Gretna - Calcium Chloride Tank	County Building	N	Y
255 - Sr. Citizens Nutrition Program - Burlington	County Building	Y	Y
259 - Communications Equipment-Burlington City-inside To	County Building	N	Y
269 - Pennington Park Structure	County Building	N	Y
275 - Pennington Park Yard & Outside	County Building	N	Y
285 - Sr. Citizens Nutrition Program - Burlington	County Building	N	Y
292 - Beverly Housing Authority Bldg. - WIC	County Building	Y	Y
293 - Pistrock Property - Main House	County Building	Y	Y
294 - Derowski Property - Main House	County Building	Y	Y
295 - Jentsch Property - Main House	County Building	Y	Y
296 - Hennessy Property - Main House	County Building	Y	Y
368 - Communications Equipment-New Gretna-Viking Yacht-o	County Building	N	Y
408 - dreker property - shed/pole barn	County Building	Y	Y
425 - Diamond Property - Main House	County Building	Y	Y
426 - Diamond Property - Small Shed	County Building	Y	Y
441 - Bauer property - main house	County Building	Y	Y
442 - Bauer property - shed	County Building	Y	Y
443 - ventures property - main house	County Building	Y	Y
444 - ventures property - shed 1	County Building	Y	Y
445 - ventures property - shed 2	County Building	Y	Y
446 - ventures property - shed 3	County Building	Y	Y
455 - stevens property - main house	County Building	Y	Y
456 - stevens property - garage	County Building	Y	Y
457 - stevens property - shed 1	County Building	Y	Y
458 - stevens property - shed 2	County Building	Y	Y
462 - hart lessig property - structure 1	County Building	Y	Y
463 - hart lessig property structure 2	County Building	Y	Y
464 - pray property - structure	County Building	Y	Y
465 - graf property - structure	County Building	N	Y
466 - whitehead property - structure	County Building	N	Y
467 - Hancock property - structure	County Building	Y	Y
474 - communications equipment - Burlington county bridge police - palmyra borough	County Building	Y	Y
477 - communications equipment - Burlington city	County Building	Y	Y
492 - communications equipment - mount holly	County Building	Y	Y
503 - Lindsay property - main house	County Building	Y	Y
504 - Lindsay property - shed 1	County Building	Y	Y



Name	Type	Exposure	
		1% Event	0.2% Event
505 - Lindsay property - shed 2	County Building	Y	Y
520 - Bauer Property	County Building	Y	Y
521 - Dept of Public Works Warehouse/Garage/Offices	County Building	N	Y
526- Smithville Dam	County Building	Y	Y
530- Smithville Park Bridge III	County Building	Y	Y
531- Smithville Park Bridge IV	County Building	Y	Y
72 - Mosquito Pesticide Trailer-New Gretna	County Building	N	Y
73 - Highway Maintenance - New Gretna	County Building	N	Y
74 - Highway Maintenance Salt Shed - New Gretna	County Building	N	Y
75 - Highway Maintenance Gas Station - New Gretna	County Building	Y	Y

Source: Burlington County 2023; Burlington County Planning Partnership 2023; FEMA 2019

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in or could impact the County of Burlington:

- Astion Lake Dam – New Jersey Department of Transportation
- Timber Lake Dam – Birchwood Lake Colony Club
- Sylvan Lake Dam – Township of Burlington
- Centennial Lake Dam – Centennial Land & Development
- Mirror Lake Dam – Township of Pemberton
- Mishe-Mokwa Dam – Borough of Medford Lakes
- Vincentown Mill Dam – Township of Southampton
- Ballinger Lake Dam – Medford Lakes Colony
- Smithville Dam – County of Burlington
- Wagush Levee Dam – Medford Lakes Colony

Identified Issues

After review of the County of Burlington’s hazard event history, hazard rankings, jurisdiction specific vulnerabilities, hazard area extent and location, and current capabilities, the County of Burlington identified the following vulnerabilities within their community:

- There are properties in the County that repetitively flood.
- There are critical facilities which do not have emergency backup power which cannot operate during the course of a hazard or adverse weather.
- Localities have not included hazard mitigation practices into their planning and zoning initiatives.
- There a very few municipalities within the County which participate in the Community Rating System program.
- There is no defined public information strategy for hazard education prior to an event.
- Current roads, bridges, and culverts do not have the adequate capacity to deal with the frequency and intensity of floods.



- Information on hazard threats is available on the County website, but residents may not know the information is available.
- Public Works has been working on Temporary Debris Management Plan, but Emergency Management must write the official plan for debris management.
- Annual reporting and updates of the HMP have not consistently been performed.
- Current Digital Elevation Models (DEMs) are not high resolution, limiting potential data quality from the HAZUS program.
- There are multiple county-owned structures located in flood-prone areas, including in the 1-percent and 0.2-percent floodplains.
- Municipal critical facilities require back-up power to continued operations during an emergency. Municipalities are usually aware of these needs but lack the financial capability to make the necessary upgrades.
- Drainage systems on County roads are inadequately sized and are increasing the risk for transportation accidents by contributing to flooding issues.
- Critical facilities and infrastructure are exposed to natural hazards. Some facilities and infrastructure were not built to modern standards meant to prevent damages during hazard event and need to be retrofit to sustain operations.
- Community and public outreach and education has not been regularly performed.
- Local, County, and State projects and programs may require participation and insight from the County in terms of improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Lack of inventories and datasets can result in missed opportunities for potential funding support.
- Local level officials do not have the training or certifications to perform damage assessments.
- Local level officials do not have the training or certifications to perform damage assessments.
- Municipal Floodplain Administrator may not be informed or aware of projects in their jurisdiction which may impact the floodplain and should be advised of all plans and projects within their jurisdiction which may impact the floodplain.
- When there are rescues or floodings there are not enough boat ramps along the Delaware River to launch the needed water vehicles.
- The County will address flooding issues on Route 73 in Maple Shade by partnering with Maple Shade Township and NJ DOT to identify potential mitigation actions to reduce the occurrence of flooding and flood risk when floods do occur. Once identified, cost-effective actions will be carried out.
- The County's 20 radio towers may be at risk to the wildfire hazard.
- Emergency communications have been previously impacted during hazard events in the eastern portion of Burlington County, leading to loss of communication during hazard events.
- There are multiple high-hazard potential dams located throughout the County.
- The municipalities along the U.S. Route 130 corridor in Burlington County are impacted primarily by riverine flooding that may be worsened by climate change. These communities along the Delaware River and its tributaries, including the Rancocas, Assiscunk, and Pompeston creeks, are frequently



impacted by severe flooding events. A joint regional climate change resilience planning effort is needed to assess future risks and identify local and regional solutions.

- Several dams in Burlington County have received poor or unsatisfactory safety ratings on their most recent inspections. Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.

9.1.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritizes actions to address over the next five years.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2019 HMP. Actions that are in progress are carried forward and combined with new actions as part of this plan update and are included in the tables with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such and previously presented in the 'Capability Assessment' earlier in this annex.



Table 9.1-16. Status of Previous Mitigation Actions

Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
BC-1 (former County – 1)	<p>Purchase, relocate, or elevate structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss property as priority.</p> <p>Phase 1: Identify appropriate candidates based on cost-effectiveness, for example:</p> <p>Phase 2: Where determined to be a viable option, work with property owners toward implementation of the determined action based on available funding from FEMA and local match availability</p>	County of Burlington Public Works and Public Safety	No Progress. Municipalities have made some progress. The County can only provide support.	Yes	There are properties in the County that repetitively flood.	County of Burlington Public Works and Public Safety
BC-2 (former County – 2)	Obtain and install backup power at vital county critical facilities	BC Facilities and Services; BC Engineering; BC OEM	<p>In Progress</p> <p>Most critical facilities have back-up power; however, a few critical facilities may not have the capability.</p> <p>Change responsible party to County DPW</p>	Yes	There are critical facilities which do not have emergency backup power which cannot operate during the course of a hazard or adverse weather.	BC DPW
BC-3 (former County – 3)	Join NOAA "Storm Ready"	BC Engineering, BC OEM	No Progress. Discontinue. Municipalities can elect to participate at the local level.	No	-	-



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
BC-4 (former County – 4)	Promote “Firewise” throughout the county	BC OEM, Participating Communities in BC	Ongoing Capability	No	-	-
BC-5 (former County -5)	Support local efforts to incorporate hazard mitigation into Local Master Plans/Zoning	County Department of Resource Conservation, Burlington County Bridge Commission	In Progress Have met with municipalities to incorporate mitigation efforts into local plans	Yes	Localities have not included hazard mitigation practices into their planning and zoning initiatives	County Department of Resource Conservation, Burlington County Bridge Commission
BC-6 (former County – 6)	Promote CRS program throughout the county	BC Engineering; NFIP Participating Communities in BC	No Progress	Yes	There a very few municipalities within the County which participate in the CRS Program.	BC Engineering; NFIP Participating Communities in BC
BC-7 (former County – 7)	Obtain/record/maintain historical hazard data such as: flood high water marks, road closures, wild fires, requests for assistance, loss data etc.	BC Engineering; BC OEM	Ongoing Capability This data is continuously collecting following and during various hazard events. Collected information in shared between relevant County agencies.	No	-	-
BC-8 (former County – 8)	Develop public info. strategy for dissemination of hazard information before an event	BC PIO; BC Engineering, BC OEM; PIO	In Progress Departments are working together to develop approved public messaging for events.	Yes	There is no defined public information strategy for hazard education prior to an event.	BC PIO; BC OEM
BC-9 (former County – 9)	Evaluate the adoption of “no Adverse Impact” land use policies through a planning framework.	County Department of Resource Conservation, Burlington County Bridge Commission	Complete County Planning Board administers land use management. Policies are in place	No	-	-



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
			to prevent and disallow adverse impacts.			
BC-10 (former County – 10)	Provide technical information and guidance on hazards & risks to municipalities and the public	BC OEM; BC Engineering; BC PIO	No Progress No longer a County priority.	No	-	-
BC-11 (former County – 11)	Retrofit critical river crossings including roads, bridges, and culverts over floodplains on county roads	BC Engineering; Traffic Safety; Public Works	In Progress When redesigning, infrastructure is brought up to current standards. Change responsible party to BC DPW, BC Engineering	Yes	Current roads, bridges, and culverts do not have the adequate capacity to deal with the frequency and intensity.	BC DPW, BC Engineering
BC-12 (former County – 12)	Create and enhance mutual aid agreements between law enforcement, municipal public works, and county public works departments	BC Public Works; BC OEM	Ongoing Capability This is action requires continued efforts and maintenance.	No	-	-
BC-13 (former County – 13)	Improve dissemination of public information on imminent hazard threats	BC OEM; BC Engineering; BC PIO	In Progress There is a good relationship between the offices/departments, and are developing the appropriate information to be pushed out.	Yes	Information on hazard threats is available on the County website, but residents may not know the information is available.	BC OEM; BC PIO
BC-14 (former County – 14)	Keep a geo-referenced list and information on critical facilities and infrastructure components	BC GIS; BC Prosecutor; BC Engineering; BC OEM	Ongoing Capability This action is a continuous effort.	No	-	-



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
BC-15 (former County – 15)	Develop post disaster action plan that includes debris removal components	BC Public Works; BC OEM	In Progress	Yes	Public Works has been working on TDMP, but OEM must write the official plan for debris management.	BC Public Works; BC OEM
BC-16 (former County – 16)	Map urban/wild land interface areas	BC GIS; BC OEM	Complete	No	-	-
BC-17 (former County – 17)	Identify, evaluate & improve evacuation routes for all hazards of concern.	BC Traffic; BC Engineering; BC OEM	Complete County has identified evacuation routes.	No	-	-
BC -18 (former County – 18)	Create data sets for reverse 911 for flooding, urban/wild land interface & vulnerable populations	BC OEM; CGIS; BC PIO; BC Office of Aging	Complete Built into Reverse 911 system	No	-	-
BC-19 (former County – 20)	Increase participation in multi-jurisdictional annual progress reports and updates of BC All Hazards Mitigation Plan, if necessary.	BC Engineering; BC OEM; BC Resource Conservation; BC Health; Red Cross; BC Prosecutor; BC Public Works	No Progress BATool has been available for reporting	Yes	Annual reporting and updates of the HMP have not consistently been performed.	BC Engineering; BC OEM; BC Resource Conservation; BC Health; Red Cross; BC Prosecutor; BC Public Works
BC-20 (former County – 21)	Enhance the building inventory to include structure values for future use of the HAZUS program	BC GIS	Ongoing Capability This action is a continuous effort.	No	-	-
BC-21 (former County – 22)	Provide higher resolution digital elevation model for future use of the HAZUS program	BC GIS	No Progress LIDAR data proposed, 1ft. resolution DM is proposed	Yes	Current DEMs are not high resolution	BC GIS



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
BC-22 (former County – 23)	Retrofit structures located in flood-prone areas to protect structures from future damage, especially those known to be identified as 'repetitive loss'	BC Resource Conservation; BC Engineering; Burlington County Bridge Commission	No Progress Electrical improvements to Riverside-Delanco bridge to operate in higher flooding conditions in summer 2023	Yes	There are structures located in flood-prone areas.	BC Resource Conservation; BC Engineering; Burlington County Bridge Commission
BC-23 (former County – 24)	Aid municipalities in obtaining backup power at vital critical facilities	BC Facilities and Services; BC Engineering; BC OEM; Municipalities	In Progress Eastampton was provided funds by the County to purchase a back-up generator	Yes	Municipal critical facilities require back-up power to continued operations during an emergency.	BC Facilities and Services; BC Engineering; BC OEM; Municipalities
BC-24 (former County – 25)	Encourage the use of higher regulatory standards in codes such as: The Local Floodplain Management Ordinance and, Zoning code	BC OEM, Engineering, GIS	No Progress Discontinue. This role is being carried out by the State of New Jersey.	No	-	-
BC-25 (former County – 26)	Replace inadequate portions of drainage systems on County roads	BC Engineering	In Progress Change responsible party to BC DPW	Yes	Drainage systems on County roads are inadequately sized and are increasing the risk for transportation accidents by contributing to flooding issues.	BC DPW
BC-26 (former County – 27)	Develop environmental monitoring component for Burlington County Emergency Operations Plan	BC OEM; BC Health Department; BC DPW	No Progress No longer a priority.	No	-	-
BC-27 (former	Retrofit vulnerable critical facilities and infrastructure	BC OEM; BC Engineering	In Progress	Yes	Critical facilities and infrastructure are exposed to natural	BC DPW



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
County - 28			Change responsible party to BC DPW		hazards and need to be retrofit to sustain operations.	
BC-28 (former County – 29)	Document the impacts of all hazards on land use decisions, especially in terms of the placement of critical facilities/infrastructure and high-density development.	County Department of Resource Conservation, Burlington County Bridge Commission	Ongoing Capability Change responsible party to County Planning Board	No	-	-
BC-29 (former County - 30)	Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction: <ul style="list-style-type: none"> Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages. <ul style="list-style-type: none"> Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation. 	BC OEM, BC Resource Conservation, BC Engineering	In Progress Maintained links on webpages. Municipalities responsible for individualized outreach. Information sessions about HMPG sources – 3 in 2023.	Yes	Community and public outreach and education has not been regularly performed.	BC OEM, BC Resource Conservation



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
	<ul style="list-style-type: none"> Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures. Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding 					
BC-30 (former County – 31)	Support municipalities with incorporation of ordinances and/or zoning restrictions to control and mitigate future development in hazard areas, specifically as identified in Section 5.	Municipality with support from Planning Partners, BC Bridge Commission, NJOEM, FEMA	Discontinue County has no impact on local land use	No	-	-
BC-31 (former County – 32)	Develop programs/procedures to capture and archive loss data from events. Examples include: <ul style="list-style-type: none"> Record location and length of roadway closures; Develop a database of residential and commercial property 	Municipality with support from BC OEM, NJOEM and FEMA	Discontinue The State is developing a program for this type of data collection.	No	-	-



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
	damage, including permit history for such repairs; <ul style="list-style-type: none"> High water marks, perhaps painting phone poles with high water marks and or regulatory Base Flood Elevations (BFEs). 					
BC-32 (former County – 33)	Participate in local, county, and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Such programs may include developing a detailed inventory of critical facilities based upon FEMA's Comprehensive Data Management System (CDMS) which could be used for various planning and emergency management purposes including: <ul style="list-style-type: none"> Support the performance of enhanced risk and vulnerability assessments for hazards of concern. Support state, county and local planning efforts including mitigation (including updates to the State HMP), comprehensive 	Municipality with support from BC OEM, NJOEM and FEMA	In Progress The County has assisted and participated in local, county, and state level projects. Reword action to just be primary paragraph without the bullet points.	Yes	Local, County, and State projects and programs may require participation and insight from the County in terms of improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts.	Municipality with support from BC OEM, NJOEM and FEMA



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
	emergency management, debris management, and land use. Improved structural and facility inventories could incorporate flood, wind, and seismic-specific parameters (e.g. first floor elevations, roof types, structure types based on FEMA-154 "Rapid Visual Screening of Buildings for Potential Seismic Hazards" methodologies). It is recognized that these programs will need to be initiated and supported at the County and/or State level, and will require training, tools and funding provided at the county, state and/or federal level.					
BC-33 (former County - 34)	Support ongoing updates of Comprehensive Emergency Management Plans	BC OEM; Hazard Mitigation Plan Coordinator, BC GIS	Ongoing Capability The County works with the emergency managers at each municipality.	No	-	-
BC-34 (former County - 35)	Foster the creation, enhancement, and maintenance of Mutual Aid Agreements between neighboring communities for continuity of operations	Municipality with support from BC OEM and NJ OEM	Ongoing Capability The County works with the emergency managers at each municipality.	No	-	-
BC-35 (former County - 36)	Identify and develop agreements with entities that can provide support with FEMA/NJOEM paperwork after disasters; qualified damage assessment personnel –	Municipality with support from BC OEM, NJOEM, FEMA and surrounding	In Progress The County's municipal partners are mostly volunteers and do not possess the time to complete	Yes	Local level officials do not have the training or certifications to perform damage assessments.	Municipality with support from BC OEM, NJOEM, FEMA and surrounding communities and counties



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
	Improve post-disaster capabilities – damage assessment; FEMA/NJOEM paperwork compilation, submissions, record-keeping	communities and counties	training, but the County is still hosting training on these topics.			
BC-36 (former County – 37)	Work with regional agencies (i.e. County and NJOEM) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).	Municipality with support from BC OEM, NJOEM and FEMA	In Progress Municipal partners are mostly volunteers and do not possess the time to complete training, but the County is still hosting training on these topics.	Yes	Local level officials do not have the training or certifications to perform damage assessments.	Municipality with support from BC OEM, NJOEM and FEMA
BC-37 (former County - 38)	Continue to support the implementation, monitoring, maintenance, and updating of this Plan (through participation in the 5-year Plan Update)	Municipality with support from BC OEM, NJOEM and FEMA	Ongoing Capability The County Office of Emergency Management leads this effort.	No	-	-
BC-38 (former County – 39)	Promote the participation of Floodplain Administrators within the planning process and other activities.	Municipality with support from Planning Partners, BC OEM, NJOEM, FEMA	In Progress The County has reached out to municipal FPAs to include them in County projects within their locality	Yes	Municipal Floodplain Administrator may not be informed or aware of projects in their jurisdiction which may impact the floodplain and should be advised of all plans and projects within their jurisdiction which may impact the floodplain.	Municipality with support from Planning Partners, BC OEM, NJOEM, FEMA
BC-39 (former County – 40)	Incorporate floodplain and RiskMAP products into the County GIS system and make available for municipalities.	Municipality with support from BC OEM, County	Ongoing Capability	No	-	-



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
		Engineers, NJOEM and FEMA	As updates become available, they are incorporated into the data system			
BC-40 (former County – 41)	Provide public education and outreach on proper installation and/or use of backup power	County GIS and BC OEM	Ongoing Capability Health Department puts out information on the safe use of back-up power and generators.	No	-	-
BC-41	Increase boat slips for emergency rescue on Delaware River (south of Burlington City) and Rancocas	BC OEM	No Progress Some slips have deteriorated.	Yes	When there are rescues or floodings there are not enough boat ramps to launch the needed water vehicles.	BC OEM
BC-42	Address flooding issues on Route 73 in Maple Shade	BC Engineering	No Progress Include that it's a State road – partner with NJDOT	Yes	Route 73 in Maple Shade floods during heavy rain events.	BC Engineering, NJDOT
BC-43	Phase 1: Determine vulnerability of the 20 radio towers in the County to wildfire. Phase 2: Increase buffer to forest edge in vulnerable radio tower locations.	BC Engineering, BC Resource Conservation	In Progress Landscaping is performed, but determining vulnerability has not been completed. Change responsible party to BC DPW, OEM, Public Safety, NJ FFS	Yes	The County's 20 radio towers may be at risk to the wildfire hazard.	BC DPW, OEM, Public Safety, NJ FFS
BC-44	Strengthen and harden communications with eastern portion of County to prevent loss of communication during hazard events.	BC OEM	In Progress. Additional hardening is needed.	Yes	Emergency communications have been previously impacted during hazard events.	BC Public Safety, BC OEM
BC-45	Hold meetings to discuss hazard mitigation progress and emerging	BC OEM	Ongoing Capability	No	-	-



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
	hazards of concern. Annual meetings with LEPC. Quarterly meetings with Steering Committee.		These meetings are required by the State through Directive NJOEM-5 and NJOEM-7			
BC-46	Develop Countywide map book to have hard copy records of all mutual aid agreements and emergency procedures in the event of utility and communications failure during hazard events.	BC OEM	Discontinue Files are now digitally stored	No	-	-



Additional Mitigation Efforts

In addition to the mitigation initiatives completed in the table above, the County of Burlington identified the following mitigation efforts completed since the last HMP:

- A deployable aluminum flood barrier was purchased to prevent flooding of the basement of the indoor firing range following flooding in 2020. The barrier has been successfully deployed since it was installed and successfully prevented flooding.

Since the adoption of the County's first HMP, the County of Burlington has made significant mitigation progress in the following areas:

- Flood mitigation

Proposed Hazard Mitigation Initiatives for the HMP Update

The County of Burlington participated in a mitigation action workshop in October 2023 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 'Selecting Appropriate Mitigation Measures for Flood prone Structures' (March 2007) and FEMA 'Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards' (January 2013).

The table below indicates the range of proposed mitigation action categories. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Table 9.1-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA						CRS			
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X	X	X			X
Disease Outbreak	X	X		X	X		X			X
Drought	X	X		X	X	X	X			X
Earthquake	X	X		X	X	X	X			X
Extreme Temperatures	X	X		X	X	X	X			X
Flood	X	X	X	X	X	X	X		X	X
Severe Weather	X	X	X	X	X	X	X		X	X
Severe Winter Weather	X	X		X	X	X	X			X
Wildfire	X	X		X	X	X	X			X

Note: Mitigation categories are described below the Mitigation Initiatives.



The following pages list the specific mitigation initiatives Burlington County would like to pursue in the future to reduce the effects of hazards. The initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in County priorities.



Action 2024-BurlingtonCounty-01. Repetitive Loss Properties

Lead Agency:	Burlington County Public Safety	
Supporting Agencies:	Municipalities	
Hazard(s) of Concern:	Flood, Severe Weather	
Description of the Problem:	There are properties in the County that repetitively flood.	
Description of the Solution:	The County will support municipalities that work to reduce the number of repetitive loss properties in their municipality through elevation or acquisition. This will include providing information on funding opportunities and any data/letters of support municipalities may need.	
Estimated Cost:	High	
Potential Funding Sources:	County budget	
Implementation Timeline:	Within 5 years	
Goals Met:	2, 3, 5, 7	
Benefits:	The County will reduce flood related issues that are connected to repetitive loss properties.	
Impact on Socially Vulnerable Populations:	Removing homes from the floodplain immediately removes the risk to life and property. Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.	
Impact on Future Development:	This action may influence restrictions on future development in the floodplain or in flood prone locations.	
Impact on Critical Facilities/Lifelines:	This action will relocate or elevate critical facilities identified as repetitive loss properties. The potential to purchase the property and turn the land into open space is also a mitigation option which would greatly reduce future flood impacts.	
Impact on Capabilities:	This action strengthens the County's capability to deal with the flood hazard.	
Climate Change Considerations:	Hazard events are increasing in frequency and severity due to climate change. Floods in particular are projected to increase in frequency, which would further impact repetitive loss properties and potentially add new properties to repetitive and severe repetitive loss property lists.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects	
Priority	High	
Alternatives	Action	Evaluation
	No action	Current problem continues



	Construct flood walls/barriers around vulnerable areas	Costly and can divert floodwaters to other areas
	Deployable flood barriers for vulnerable areas	Requires a great deal of work to implement prior to each event



Action 2024-BurlingtonCounty-02. Back-Up Power at Critical Facilities

Lead Agency:	Burlington County Public Works
Supporting Agencies:	Burlington County Facilities and Services, Burlington County Engineering, Burlington County Emergency Management
Hazard(s) of Concern:	Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperatures, Flood, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	There are critical facilities which do not have emergency backup power which cannot operate during the course of a hazard or adverse weather.
Description of the Solution:	The Engineer will survey critical facilities to determine where backup power needs exist. The County Public Works will obtain and install backup power at vital County critical facilities. Public Works will be responsible for maintenance.
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget
Implementation Timeline:	5 years
Goals Met:	1, 6, 7
Benefits:	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to socially vulnerable populations.
Impact on Future Development:	Future development supported by these facilities will benefit from this action.
Impact on Critical Facilities/Lifelines:	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.
Impact on Capabilities:	The action will increase the County's capabilities during power outage events.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides a means for continuity of operations.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Emergency Services
Priority	High



Alternatives	Action	Evaluation
	No Action	Current problem continues
	Solar Panels	Weather dependent and costly
	Mobile Generator	May lack sufficient power supply or run time



Action 2024-BurlingtonCounty-03. Municipal Planning and Zoning Support

Lead Agency:	Burlington County Department of Resource Conservation
Supporting Agencies:	Burlington County Bridge Commission, Burlington County Emergency Management, Municipalities
Hazard(s) of Concern:	Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperatures, Flood, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Localities have not included hazard mitigation practices into their planning and zoning initiatives.
Description of the Solution:	The County will support local efforts to incorporate hazard mitigation into Local Master Plans/Zoning through promotion of the HMP as a resource for hazard mitigation and integration.
Estimated Cost:	Low
Potential Funding Sources:	HMGP, BRIC, FMA, Municipal Budgets
Implementation Timeline:	Within 5 years
Goals Met:	1, 2, 5
Benefits:	<ul style="list-style-type: none"> Provides an opportunity for coordination amongst agencies and their planning efforts to improve the overall ability to prepare for, respond to, and recover from events. Mitigation considerations being taken when developing or updating building and zoning codes can lessen the risk of damage from a hazard event and increase overall community resiliency.
Impact on Socially Vulnerable Populations:	Communities that collaborate and coordinate their planning efforts are more likely to have identified ways to best work with vulnerable populations to increase their level of preparedness.
Impact on Future Development:	<ul style="list-style-type: none"> Coordinated planning efforts provide an opportunity for efficient and safe growth and development. Updated building and zoning codes ensure that any new development that does take place is built to the safest standards based upon the best available data.
Impact on Critical Facilities/Lifelines:	Integrating mitigation into building and zoning protects existing infrastructure and guides the safe development of new construction.
Impact on Capabilities:	A consolidated planning process brings together the capabilities of agencies and departments and better identifies what resources are available at any given point in time and where they are needed most.
Climate Change Considerations:	As the climate changes, planning processes will require a more intense focus on plan maintenance and gathering of the best data to remain current and accurate over time.
Mitigation Category	Local Plans and Regulations



CRS Category	Preventative Measures	
Priority	High	
Alternatives	Action	Evaluation
	No Action	Current problem exists
	Incorporate into Master Plan only	May be inconsistent or contradictory with current zoning and land use plans
	Incorporate into Zoning/Land Use codes/ordinances only	May be inconsistent or contradictory with municipal Master Plans and future land development practices



Action 2024-BurlingtonCounty-04. CRS Program Promotion

Lead Agency:	Burlington County Engineering	
Supporting Agencies:	NFIP Participating Municipalities	
Hazard(s) of Concern:	Flood	
Description of the Problem:	There a very few municipalities within the County which participate in the Community Rating System program.	
Description of the Solution:	The County will promote the CRS program throughout the County, emphasizing municipalities which have significant flood risk and NFIP policies.	
Estimated Cost:	Low	
Potential Funding Sources:	County budget	
Implementation Timeline:	2 years	
Goals Met:	2, 5	
Benefits:	The participation in the CRS benefits communities by offering discounted rates for flood insurance premiums, which addresses the three goals of the program: reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management.	
Impact on Socially Vulnerable Populations:	The participation in the Community Rating System (CRS) benefits communities by offering discounted rates for flood insurance premiums, which may be more affordable for some socially vulnerable populations.	
Impact on Future Development:	Future development would need to adhere to any increased standards established as part of joining the CRS program such as increased freeboard and elevation certificate requirements.	
Impact on Critical Facilities/Lifelines:	N/A	
Impact on Capabilities:	This action would enhance the County's and the participating municipality's floodplain management capabilities.	
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. As sea level rises due to climate change, the area of the flood hazard may expand. These changes are likely to increase flood risks.	
Mitigation Category	Education and Awareness Programs	
CRS Category	Public Information	
Priority	High	
Alternatives	Action	Evaluation
	No action	-



	Encourage municipalities to adopt aspects of the CRS program into their floodplain management program s	Increased floodplain management capabilities but no reduction in flood insurance premiums
	Abandon any floodplain management practices not required by NFIP	Reduction in floodplain management capabilities and increase in risk.



Action 2024-BurlingtonCounty-05. Public Information Strategy

Lead Agency:	Burlington County Public Information Officer	
Supporting Agencies:	Burlington County Emergency Management	
Hazard(s) of Concern:	Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperatures, Flood, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	There is no defined public information strategy for hazard education prior to an event.	
Description of the Solution:	Develop a standard operating procedure for the County's public information strategy for dissemination of hazard information before an event.	
Estimated Cost:	Low	
Potential Funding Sources:	County budget	
Implementation Timeline:	Within 1 year	
Goals Met:	1, 3, 4, 7	
Benefits:	This action will create a standard operating procedure on for the County's public information strategy on hazard education, which will prepare and inform residents on safety and mitigation measures to take prior to a hazard event occurring.	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations are often the most at-risk to hazards due to pre-existing conditions and socioeconomic status. This action will educate and inform all populations, including the socially vulnerable, on the hazards how to prepare for and mitigate the risks associated with a forecasted hazard event.	
Impact on Future Development:	N/A	
Impact on Critical Facilities/Lifelines:	Informing residents on hazard preparedness and mitigation may decrease calls received for service by emergency response agencies.	
Impact on Capabilities:	This action will strengthen the public outreach capability of the county, by creating a more prepared, resilient population.	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will create a standard operating procedure for the County's identified public information strategy for the dissemination of hazard information before an event.	
Mitigation Category	Education and Awareness Programs	
CRS Category	Public Information	
Priority	High	
Alternatives	Action	Evaluation
	No action	Current problems remains



	Create a public information strategy, but do not write a standard operating procedure	May result in populations not being informed of hazards
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance



Action 2024-BurlingtonCounty-06. Flood Mitigation on Infrastructure

Lead Agency:	Burlington County Public Works	
Supporting Agencies:	Burlington County Engineering	
Hazard(s) of Concern:	Flood	
Description of the Problem:	Current roads, bridges, and culverts do not have the adequate capacity to deal with the frequency and intensity of floods.	
Description of the Solution:	The Engineer will determine which roads, bridges, and culverts lack capacity. Public Works will retrofit critical river crossings including roads, bridges, and culverts over floodplains on County roads.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA BRIC, HMGP, County Budget	
Implementation Timeline:	5+ years	
Goals Met:	2, 5	
Benefits:	<ul style="list-style-type: none"> Infrastructure will be protected from future hazard damages. Ensures at least a single transportation route remains accessible to the community. 	
Impact on Socially Vulnerable Populations:	This action will benefit socially vulnerable populations by ensuring routes are available for travel, should an evacuation occur or if emergency medical assistance is required.	
Impact on Future Development:	This action will ensure transportation routes are available to future developments during periods of heavy rainfall, which would otherwise cause roadway flooding.	
Impact on Critical Facilities/Lifelines:	<ul style="list-style-type: none"> Ensures transportation routes remain open and accessible to the public for daily use and evacuation needs. Provides a point of access for first responders into communities that may have faced damage from a hazard event on either side of the bridge. 	
Impact on Capabilities:	Increases community resiliency to flooding events in vulnerable areas that would normally be vulnerable to prolonged isolation after high-water events.	
Climate Change Considerations:	Ensures the bridge structure is impervious to erosion at its base due to rising water levels, roadways are clear of floodwaters, and culverts are adequately sized to pass debris and floodwaters without clogging.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects	
Priority	High	
Alternatives	Action	Evaluation



	No action	Current problem remains
	Build entirely new roads, bridges, and culverts throughout the county with adequate capacity	Project will most likely be too expensive
	Install pumps at flood prone locations to pump water away from infrastructure and reduce the impact	Could have substantial upfront costs and would increase operations and maintenance cost



Action 2024-BurlingtonCounty-07. Public Information on Hazard Awareness

Lead Agency:	Burlington County Public Information Officer	
Supporting Agencies:	Burlington County Emergency Management	
Hazard(s) of Concern:	Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperatures, Flood, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Information on hazard threats is available on the County website, but residents may not know the information is available.	
Description of the Solution:	The County will work to promote and improve the dissemination of public information on hazard threats. The County will seek to utilize other methods of dissemination, including newsletters, brochures and flyers, information sessions, and service tables at County events.	
Estimated Cost:	Low	
Potential Funding Sources:	County budget	
Implementation Timeline:	Within 1 year	
Goals Met:	1, 3, 4, 7	
Benefits:	This action will identify other means of dissemination of information of hazard threats to the public to keep them informed of potential impacts, risks, preparedness actions, and mitigation opportunities.	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations are often the most at-risk to hazards due to pre-existing conditions and socioeconomic status. This action will educate and inform all populations, including the socially vulnerable, on the hazards how to prepare for and mitigate the risks associated with hazards.	
Impact on Future Development:	This action may prevent individuals from wanting to develop on or near high-risk areas in the County, such as floodplains or locations prone to wildfire.	
Impact on Critical Facilities/Lifelines:	Informing residents on hazard preparedness and mitigation may decrease calls received for service by emergency response agencies.	
Impact on Capabilities:	This action will strengthen the public outreach capability of the county, by creating a more prepared, resilient population.	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will identify additional methods of dissemination for hazard-related information.	
Mitigation Category	Education and Awareness Programs	
CRS Category	Public Information	
Priority	High	
Alternatives	Action	Evaluation



	No action	Current problems remains
	Only disperse information when a hazard is imminent	The public may not have adequate time to prepare or mitigate hazards
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance



Action 2024-BurlingtonCounty-08. Debris Management Plan

Lead Agency:	Burlington County Public Works	
Supporting Agencies:	Burlington County Emergency Management	
Hazard(s) of Concern:	Dam Failure, Drought, Earthquake, Extreme Temperatures, Flood, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Public Works has been working on Temporary Debris Management Plan, but Emergency Management must write the official plan for debris management.	
Description of the Solution:	The County will develop an official disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.	
Estimated Cost:	Staff time	
Potential Funding Sources:	Municipal budget	
Implementation Timeline:	Within 5 years	
Goals Met:	5, 6	
Benefits:	The action will result in increased quicker and more efficient cleanup after disaster events.	
Impact on Socially Vulnerable Populations:	N/A	
Impact on Future Development:	N/A	
Impact on Critical Facilities/Lifelines:	N/A	
Impact on Capabilities:	The action will result in increased post disaster capabilities.	
Climate Change Considerations:	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Emergency Services	
Priority	High	
Alternatives	Action	Evaluation
	No Action	-
	Rely on federal cleanup	These services may or may not be available



	Rely on state cleanup	These services may or may not be available
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Action 2024-BurlingtonCounty-09. Hazard Mitigation Plan Maintenance

Lead Agency:	Burlington County Emergency Management
Supporting Agencies:	Burlington County Departments, Participating Municipalities
Hazard(s) of Concern:	Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperatures, Flood, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Annual reporting and updates of the HMP have not consistently been performed.
Description of the Solution:	Increase participation in multi-jurisdictional annual progress reports and updates of Burlington County Hazard Mitigation Plan, if necessary.
Estimated Cost:	Staff time, Low
Potential Funding Sources:	County budget, Municipal budgets
Implementation Timeline:	Annually
Goals Met:	3, 4, 5
Benefits:	This action will ensure all jurisdictions which participated in the 2024 Burlington County Hazard Mitigation Plan update submit annual reports regarding their identified actions statuses to monitor the implementation of their hazard mitigation strategies.
Impact on Socially Vulnerable Populations:	This action will benefit the total population of participating jurisdictions, including socially vulnerable populations. Many actions identified within the 2024 Burlington County Hazard Mitigation Plan directly benefit all populations within the County and/or jurisdiction.
Impact on Future Development:	Identified jurisdictional actions in the 2024 Burlington County Hazard Mitigation Plan impact future development by influencing planning and zoning regulations.
Impact on Critical Facilities/Lifelines:	This action will benefit critical facilities and lifelines as mitigation strategies being implemented include projects to retrofit, mitigate, or harden various facilities and lifelines throughout Burlington County.
Impact on Capabilities:	Not only is the 2024 Burlington County Hazard Mitigation Plan a capability for all participating jurisdictions, but the Plan's mitigation strategy identifies methods to improve and strengthen the capabilities of all participating jurisdictions.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. As conditions change, jurisdictions may consider altering and improving their mitigation strategy to account for the changing conditions.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	High



Alternatives	Action	Evaluation
	No action	Current problems remains
	Conduct bi-annual reports and updates	Action status may be assumed and inaccurate
	Conduct no reports or update until the plan is up for renewal	Action status may be assumed and inaccurate; staff changeover may result a lack of knowledge on action status



Action 2024-BurlingtonCounty-10. Digital Elevation Model Upgrades

Lead Agency:	Burlington County GIS	
Supporting Agencies:	-	
Hazard(s) of Concern:	Dam Failure, Earthquake, Flood	
Description of the Problem:	Current Digital Elevation Models (DEMs) are not high resolution, limiting potential data quality from the HAZUS program.	
Description of the Solution:	County GIS will work to provide a higher resolution digital elevation model for future use of the HAZUS program.	
Estimated Cost:	Low	
Potential Funding Sources:	County budget	
Implementation Timeline:	Within 2 years	
Goals Met:	1, 2, 4, 5	
Benefits:	Increasing the resolution of available DEMs will present a more accurate database of topographical surface areas, allowing for more detailed hazard analysis to be performed at the County level.	
Impact on Socially Vulnerable Populations:	Improving the resolution of DEMs will allow the County to better analyze hazard impacts to the total population of the County, including socially vulnerable populations.	
Impact on Future Development:	Higher resolution DEMs will allow for more accurate topographic surface imaging and elevations to be analyzed, which may result in future land use restrictions, including restrictions on future development.	
Impact on Critical Facilities/Lifelines:	This action will assist in identifying ground elevation levels more accurately, which can assist in the identification for locations of utilities and areas to avoid placing critical facilities and infrastructure.	
Impact on Capabilities:	This action will enhance the DEMs available at the County level, and allow for other capabilities, such as plans, codes, and policies, to be updated accordingly and appropriately.	
Climate Change Considerations:	As the impacts of climate change become present, having high resolution data on the topography of an area will become useful in emergency and land use planning.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Preventative Measures	
Priority	High	
Alternatives	Action	Evaluation
	No action	Current problems remains



	Obtain new DEM data from land surveys	May not be as accurate or detailed as remote sensing techniques
	Utilize LiDAR technology instead of DM	LiDAR can be expensive and cost prohibitive



Action 2024-BurlingtonCounty-11. Flood Prone Structures

Lead Agency:	Burlington County Resource Conservation	
Supporting Agencies:	Burlington County Engineering, Burlington County Bridge Commission	
Hazard(s) of Concern:	Flood	
Description of the Problem:	There are multiple county-owned structures located in flood-prone areas, including in the 1-percent and 0.2-percent floodplains.	
Description of the Solution:	The County will retrofit structures located in flood-prone areas and floodplains to protect structures from future damage, especially those known to be identified as repetitive loss.	
Estimated Cost:	High	
Potential Funding Sources:	HMGP, BRIC, USDA Community Facilities Grant Program, Annual Budget	
Implementation Timeline:	5+ years	
Goals Met:	2, 5, 6	
Benefits:	Critical services provided by the County buildings will be protected from flooding.	
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for utility workers and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.	
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow operations to adapt and resume in a more efficient manner.	
Impact on Critical Facilities/Lifelines:	<ul style="list-style-type: none"> Ensuring the protection of County operations and personnel will increase the likelihood of resources remaining intact. With a protected critical facility, communications are more likely to remain intact between responding agencies. 	
Impact on Capabilities:	Ensuring continuity of operations allows for a more rapid return to normalcy after a hazard event.	
Climate Change Considerations:	Critical services provided by the Municipal Complex will be protected from flooding.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Structural Flood Control Projects	
Priority	Medium	
Alternatives	Action	Evaluation
	No action	Current problem continues
	Construct flood walls/barriers around vulnerable areas	Costly and can divert floodwaters to other areas



	Deployable flood barriers for vulnerable areas	Requires a great deal of work to implement prior to each event
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Action 2024-BurlingtonCounty-12. Critical Facility Back-Up Power for Municipalities

Lead Agency:	Burlington County Facilities and Services
Supporting Agencies:	Burlington County Engineering, Burlington County Emergency Management, Municipalities
Hazard(s) of Concern:	Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperatures, Flood, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Municipal critical facilities require back-up power to continued operations during an emergency. Municipalities are usually aware of these needs but lack the financial capability to make the necessary upgrades.
Description of the Solution:	The County will aid municipalities in identifying funding sources for obtaining backup power at vital critical facilities.
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, County Budget, Municipal Budget
Implementation Timeline:	5 years
Goals Met:	1, 6, 7
Benefits:	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.
Impact on Future Development:	Future development supported by these facilities will benefit from this action.
Impact on Critical Facilities/Lifelines:	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.
Impact on Capabilities:	The action will increase municipal capabilities during power outage events.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides a means for continuity of operations.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Emergency Services
Priority	Medium



Alternatives	Action	Evaluation
	No Action	Current problem continues
	Solar Panels	Weather dependent and costly
	Mobile Generator	May lack sufficient power supply or run time



Action 2024-BurlingtonCounty-13. County Road Drainage Improvements

Lead Agency:	Burlington County Public Works	
Supporting Agencies:	Burlington County Engineering	
Hazard(s) of Concern:	Flood	
Description of the Problem:	Drainage systems on County roads are inadequately sized and are increasing the risk for transportation accidents by contributing to flooding issues.	
Description of the Solution:	The Township will complete a flood study to better understand the flood hazard and drainage situation roadways with identified flooding issues. The County will use the flood study to identify potential solutions. Cost effective solutions will be implemented.	
Estimated Cost:	Medium	
Potential Funding Sources:	FEMA BRIC, HMGP, County Budget	
Implementation Timeline:	4 years	
Goals Met:	2	
Benefits:	This action would reduce the flooding impacts felt by the travelers on County roadways.	
Impact on Socially Vulnerable Populations:	This action will assist socially vulnerable populations whose properties are impacted by flooding from roadway runoff. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.	
Impact on Future Development:	N/A	
Impact on Critical Facilities/Lifelines:	This action would assist in the reduction of roadway flooding, permitting first responders to traverse the roadways safely.	
Impact on Capabilities:		
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events that contribute to flooding and cause further damages to the roadway.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Structural Flood Control Projects	
Priority	High	
Alternatives	Action	Evaluation
	No action	Current problems remains
	Raise roadways	Cost prohibitive



	Remove all drainage infrastructure and install new infrastructure with increased storage/flow capacity	Cost prohibitive
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Action 2024-BurlingtonCounty-14. Facility Retrofits

Lead Agency:	Burlington County Public Works	
Supporting Agencies:	Burlington County Emergency Management, Burlington County Engineering	
Hazard(s) of Concern:	Dam Failure, Drought, Earthquake, Extreme Temperatures, Flood, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Critical facilities and infrastructure are exposed to natural hazards. Some facilities and infrastructure were not built to modern standards meant to prevent damages during hazard event and need to be retrofit to sustain operations.	
Description of the Solution:	County Engineering will identify retrofit needs for critical facilities and infrastructure. Public Works will complete the identified retrofits of vulnerable critical facilities and infrastructure.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA BRIC, HMGP, County budget	
Implementation Timeline:	5+ years	
Goals Met:	2, 5, 6	
Benefits:	This action will retrofit vulnerable critical facilities and infrastructure and make them more resilient to natural hazards.	
Impact on Socially Vulnerable Populations:	The operation of critical facilities and lifelines ensures the safety and security of populations throughout the County.	
Impact on Future Development:	This action may result in critical facilities being restricted from being built within hazard areas throughout the county, including in floodplains, flood prone areas, and wildfire urban interfaces.	
Impact on Critical Facilities/Lifelines:	This action will retrofit vulnerable critical facilities and infrastructure and make them more resilient to natural hazards.	
Impact on Capabilities:	This action will ensure the capabilities provided at critical facilities and lifelines are able to continue throughout an emergency with minimal impacts to operations.	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will retrofit critical facilities to be more resilient to hazard impacts.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Property Protection, Emergency Services, Structural Flood Control Projects	
Priority	Medium	
Alternatives	Action	Evaluation



	No action	Current problems remains
	Construct levees and floodwalls adjacent to all flood prone structures	May interrupt natural floodplain function and be extremely costly
	Rebuild all critical facilities and infrastructure	This option will likely be too expensive and not cost beneficial



Action 2024-BurlingtonCounty-15. Public Outreach and Education

Lead Agency:	Burlington County Emergency Management
Supporting Agencies:	Burlington County Resource Conservation
Hazard(s) of Concern:	Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperatures, Flood, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Community and public outreach and education has not been regularly performed.
Description of the Solution:	<p>Emergency Management will conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction:</p> <ul style="list-style-type: none"> ▪ Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages. ▪ Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation. ▪ Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures. ▪ Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.
Estimated Cost:	Low
Potential Funding Sources:	County budget
Implementation Timeline:	Within 1 year
Goals Met:	1, 2, 3, 4, 7
Benefits:	This action will inform all populations on the hazards which may occur in the Township, how to mitigate the risk associated with those hazards, potentially increase the number of flood-insured residents, potentially decrease the number of homes at risk to flooding impacts.
Impact on Socially Vulnerable Populations:	Socially vulnerable populations are often the most at-risk to hazards due to pre-existing conditions and socioeconomic status. This action will educate and inform all populations, including the socially vulnerable, on the hazards which may occur in the Township and how to mitigate the risk associated with those hazards.
Impact on Future Development:	By informing business owners on hazard risk and reduction, future businesses opened by these individuals and communications between



	these businesses and others will increase the resiliency of the current and future business developments in the county.	
Impact on Critical Facilities/Lifelines:	Informing residents and business owners on hazard risk and reduction may decrease calls received for service by emergency response agencies.	
Impact on Capabilities:	This action will strengthen the public outreach capability of the county and provide future opportunities for flood mitigation efforts by informing resident and business owners of grant opportunities to mitigate their properties.	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and businesses to become more resilient to hazard impacts and how to reduce hazard risks.	
Mitigation Category	Education and Awareness Programs	
CRS Category	Public Information	
Priority	High	
Alternatives	Action	Evaluation
	No Action	The public will need to rely on their own research and knowledge for disease prevention and protection
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in Burlington County
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance



Action 2024-BurlingtonCounty-16. Facility Inventories

Lead Agency:	Burlington County Emergency Management
Supporting Agencies:	Municipalities, NJOEM, FEMA
Hazard(s) of Concern:	Dam Failure, Earthquake, Flood, Wildfire
Description of the Problem:	Local, County, and State projects and programs may require participation and insight from the County in terms of improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Lack of inventories and datasets can result in missed opportunities for potential funding support.
Description of the Solution:	The County will participate in local, county, and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Such programs may include developing a detailed inventory of critical facilities based upon FEMA's Comprehensive Data Management System (CDMS) which could be used for various planning and emergency management purposes.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA BRIC, County budget
Implementation Timeline:	Within 5 years
Goals Met:	2, 5
Benefits:	Creating a facility inventory based on FEMA's CDMS will allow the County to move data to and from Hazus state datasets. Hazus is a natural hazard modeling application that estimates the social and economic impacts from hurricanes, floods, earthquakes, wildfires, and tsunamis. Hazus provides tools to users to assess the impacts of various mitigation strategies that can be used to help address the issues created by hazards.
Impact on Socially Vulnerable Populations:	As a result of this action, populations impacted by the various assessable hazards in Hazus are able to be identified. Furthermore, Hazus is able to produce information on socially vulnerable populations which may be impacted by various hazards.
Impact on Future Development:	This action will permit Hazus modeling to be utilized to analyze various impacts to a location. Depending on the potential impacts, future development may be restricted in areas of the County where hazard risk is high, such as floodplains or the wildfire urban interface.
Impact on Critical Facilities/Lifelines:	Hazus modeling performed as a result of creating a facility inventory based on FEMA's CDMS will permit for direct dollar loss estimates to be performed on critical facilities and lifelines.
Impact on Capabilities:	The creation of this new capability will directly impact and support other capabilities in the County, including first response, planning, zoning, financial, and educational.



Climate Change Considerations:	Hazus information is updated annually to include the most up-to-date version of available baseline inventory datasets, such as demographics, buildings, essential facilities, transportation and utility systems, and vulnerability information required to analyze each natural hazard risk.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Preventative Measures	
Priority	High	
Alternatives	Action	Evaluation
	No action	Current problems remains
	Do not base the inventory off of FEMA's CDMS	Will prevent HAZUS-MH MR3 users from updating and managing datasets that support analysis in HAZUS-MH
	Do not annually update inventories	Inventory will become outdated



Action 2024-BurlingtonCounty-17. Damage Assessment MOUs

Lead Agency:	Burlington County Emergency Management	
Supporting Agencies:	Municipalities, NJOEM, FEMA Surrounding Communities and Counties	
Hazard(s) of Concern:	Dam Failure, Earthquake, Extreme Temperatures, Flood, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Local level officials do not have the training or certifications to perform damage assessments.	
Description of the Solution:	The County will identify and develop agreements with entities that can provide support with FEMA/NJOEM paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/NJOEM paperwork compilation, submissions, record-keeping.	
Estimated Cost:	Low	
Potential Funding Sources:	County budget, Municipal budgets	
Implementation Timeline:	Within 3 years	
Goals Met:	2, 5	
Benefits:	This action will result in a Memorandum of Understanding (MOU) with identified entities who will be able to perform damage assessments for jurisdictions who do not have the capability.	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations are often the most at-risk to potentially poor structural integrity of living spaces. This action will ensure there are individuals trained in damage assessments to perform these assessments, of which individual assistance may be the result.	
Impact on Future Development:	The outcome of damage assessments can assist in the strengthening of future building codes and zoning restrictions.	
Impact on Critical Facilities/Lifelines:	Contracted damage assessors will be able to provide damage assessments at critical facilities.	
Impact on Capabilities:	This action will add a capability to municipalities of having personnel on contract able to complete damage assessments of structures.	
Climate Change Considerations:	Climate change may result in an increase in the frequency and severity of weather-related disaster events, leading to an increased demand for individuals to be conducting damage assessments.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Preventative Measures, Property Protection	
Priority	High	
Alternatives	Action	Evaluation
	No action	Current problem continues



	Use only jurisdictional staff	Some jurisdictions in the County are small and have limited staffing availabilities, often with individuals holding multiple roles in the community
	Hire a private contractor instead of instituting an MOU with the County, State, or surrounding jurisdictions	May be cost prohibitive



Action 2024-BurlingtonCounty-18. Damage Assessment Training

Lead Agency:	Burlington County Emergency Management	
Supporting Agencies:	Municipalities, NJOEM, FEMA	
Hazard(s) of Concern:	Dam Failure, Earthquake, Extreme Temperatures, Flood, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Local level officials do not have the training or certifications to perform damage assessments.	
Description of the Solution:	The County will work with regional agencies (i.e. County and NJOEM) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).	
Estimated Cost:	Low	
Potential Funding Sources:	Staff time	
Implementation Timeline:	2 years	
Goals Met:	1, 2, 5	
Benefits:	This action will improve safety and security to those impacted by an event which produced structural damage to their property.	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations are often the most at-risk to potentially poor structural integrity of living spaces. This action will produce individuals trained in damage assessments, of which individual assistance may be the result.	
Impact on Future Development:	The outcome of damage assessments can assist in the strengthening of future building codes and zoning restrictions.	
Impact on Critical Facilities/Lifelines:	Individuals trained in conducting damage assessments will be able to provide these assessments at critical facilities.	
Impact on Capabilities:	This action will add a capability to municipalities of having personnel on staff able to complete damage assessments of structures.	
Climate Change Considerations:	Climate change may result in an increase in the frequency and severity of weather-related disaster events, leading to an increased demand for individuals trained in conducting damage assessments.	
Mitigation Category	Education and Awareness Programs	
CRS Category	Public Information, Emergency Services	
Priority	High	
Alternatives	Action	Evaluation
	No Action	Current problem remains



	Train personnel not using NJOEM's damage assessment tool	Not utilizing NJOEM's damage assessment tool could cause discrepancies and inconsistencies when reporting damages, leading to a potential loss of public or individual assistance
	Rely on state or federal resources	These services may or may not be available



Action 2024-BurlingtonCounty-19. FPA Planning Participation

Lead Agency:	Burlington County Emergency Management
Supporting Agencies:	Municipalities, Planning Partners, NJOEM, FEMA
Hazard(s) of Concern:	Flood
Description of the Problem:	Municipal Floodplain Administrator may not be informed or aware of projects in their jurisdiction which may impact the floodplain and should be advised of all plans and projects within their jurisdiction which may impact the floodplain.
Description of the Solution:	The County will promote the participation of Floodplain Administrators within the planning process and other floodplain related activities throughout the County.
Estimated Cost:	Staff time
Potential Funding Sources:	County budget, Municipal budgets
Implementation Timeline:	Within 1 year, ongoing once established.
Goals Met:	1, 2, 5
Benefits:	This action will increase the NFIP capabilities of each participating municipality by assuring their FPA's are involved and aware of all plans and projects within their jurisdiction which may impact the floodplain.
Impact on Socially Vulnerable Populations:	This action will benefit socially vulnerable populations living in or around the floodplain, as well as those living in flood prone locations in NFIP-participating jurisdictions, as their properties may be impacted by plans and projects in their jurisdiction.
Impact on Future Development:	This action may result in additional restrictions within municipalities, including those which impact future development in and around floodplains or flood prone areas.
Impact on Critical Facilities/Lifelines:	This action may result in critical facilities and lifelines being identified as potential locations for flood mitigation projects, including structural elevations or relocations or property acquisitions.
Impact on Capabilities:	This action will strengthen the NFIP, planning, and zoning laws, codes, and regulations within NFIP-participating jurisdictions by informing FPA's about any plans or projects which may impact the floodplain within their jurisdiction.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will ensure municipal FPA's are aware of any ongoing within their jurisdiction's floodplains.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	High



Alternatives	Action	Evaluation
	No action	Current problems remains
	Inform FPA of plans and projects only in floodplain	Projects and plans outside of the floodplain may have potential impacts to the floodplain
	FPA is not involved in full planning process	All potential impacts may not be able to be identified or assessed



Action 2024-BurlingtonCounty-20. Delaware River Boat Launch

Lead Agency:	Burlington County Emergency Management
Supporting Agencies:	-
Hazard(s) of Concern:	Flood
Description of the Problem:	When there are rescues or floodings there are not enough boat ramps along the Delaware River to launch the needed water vehicles.
Description of the Solution:	The County will work to secure existing boat slips or develop new boat slips for emergency rescue on Delaware River (south of Burlington City) and Rancocas Creek.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA BRIC, PSGP, County Budget
Implementation Timeline:	5+ years
Goals Met:	1, 5
Benefits:	This action will ensure the safe launch of water vehicles, which are used to rescue trapped persons from flood waters and water bodies, including the Delaware River and Rancocas Creek, which are the two primary sources of flooding in Burlington County.
Impact on Socially Vulnerable Populations:	This action will allow first responders to safely perform water rescues, increasing the safety of the entire population.
Impact on Future Development:	Development of additional boat ramps along the Delaware River will permit the safe launch of rescue water vehicles should an emergency occur on the Delaware River and/or Rancocas Creek, including a maritime transportation incident or missing person search/recovery.
Impact on Critical Facilities/Lifelines:	This action will permit first responders to safely launch water vehicles to perform water rescues.
Impact on Capabilities:	This action will further the County's water rescue capabilities which are utilized primarily during flooding events to assist those who may be trapped in vehicles or washed into flood waters.
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Heavy rains will contribute to additional flooding. Furthermore, anticipated sea level rise will impact the tidal Delaware River and its tributaries, including the Rancocas Creek, raising the height of both waterbodies.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services
Priority	Medium



Alternatives	Action	Evaluation
	No action	Current problems remains
	Utilize private boat launches	May not be accessible when needed
	Resurface existing boat launches	Will not increase the capabilities needed



Action 2024-BurlingtonCounty-21. Route 73 Flooding

Lead Agency:	Burlington County Engineering
Supporting Agencies:	Burlington County Public Works, NJ DOT
Hazard(s) of Concern:	Flood, Severe Weather
Description of the Problem:	Route 73 in Maple Shade floods during heavy rain events.
Description of the Solution:	The County will address flooding issues on Route 73 in Maple Shade by partnering with Maple Shade Township and NJ DOT to identify potential mitigation actions to reduce the occurrence of flooding and flood risk when floods do occur. Once identified, cost-effective actions will be carried out.
Estimated Cost:	Medium
Potential Funding Sources:	HMGP, BRIC, FMA, Annual Budget, NJ DOT funds
Implementation Timeline:	Within 5 years
Goals Met:	1, 6
Benefits:	<ul style="list-style-type: none"> Flood risk will be reduced in hazard prone areas. Vulnerable communities will be identified ahead of a flood event, which will allow first responders to plan and stage resources in those areas. Future mitigation projects may be identified that will further increase overall community resiliency to flooding and other hazard events.
Impact on Socially Vulnerable Populations:	<ul style="list-style-type: none"> Areas vulnerable to flooding will be made aware to County and Maple Shade Township leadership and first responders which can place an emphasis on controlled future development. If cost-effective mitigation actions are identified, they may be implemented in flood prone areas that could reduce their overall risk to loss of life and property.
Impact on Future Development:	Flood insurance costs may decrease.
Impact on Critical Facilities/Lifelines:	<ul style="list-style-type: none"> Transportation routes will be more likely to remain open if flooding is mitigated along them. Hydration systems may remain potable for community usage if projects are identified to protect the existing infrastructure from flooding.
Impact on Capabilities:	This study will identify opportunities for mitigation funding to be spent in the areas in which it is most needed to increase resiliency and decrease damage from flood events.
Climate Change Considerations:	Consideration should be taken to ensure any projects conducted have accounted for increased extreme rainfall events.
Mitigation Category	Structure and Infrastructure Projects, Natural Systems Protection



CRS Category	Structural Flood Control Projects	
Priority	High	
Alternatives	Action	Evaluation
	No action	Current problem continues
	Raise roadway	Cost prohibitive
	Implement green infrastructure to restore natural floodplain function and reduce flooding on roadway	May be insufficient space for green infrastructure to be effective



Action 2024-BurlingtonCounty-22. Radio Tower Wildfire Vulnerability

Lead Agency:	Burlington County Public Safety
Supporting Agencies:	Burlington County Emergency Management, Burlington County Public Works, NJ FFS
Hazard(s) of Concern:	Wildfire
Description of the Problem:	The County's 20 radio towers may be at risk to the wildfire hazard.
Description of the Solution:	Phase 1: Determine vulnerability of the 20 radio towers in the County to wildfire. Phase 2: Increase buffer to forest edge in vulnerable radio tower locations using vegetation management.
Estimated Cost:	Medium
Potential Funding Sources:	County and State Budgets
Implementation Timeline:	3 years
Goals Met:	2
Benefits:	Clearing vegetation and fire fuel from radio towers assists in ensuring the radio towers are operable, which allows first responders to communicate and respond to any calls for response.
Impact on Socially Vulnerable Populations:	This action will permit radio communications between first responders to transmit when a wildfire is near the tower(s). Ensuring the radio towers are operable permits first responders to communicate and assist populations, including socially vulnerable populations, should they be in harm's way.
Impact on Future Development:	This action will permit radio communications between first responders to transmit when a wildfire is near the tower(s). Ensuring the radio towers are operable permits first responders to communicate and respond to any critical facilities or lifelines impacted by wildfire or other hazards.
Impact on Critical Facilities/Lifelines:	This action will protect critical facilities from the wildfire hazard by removing fire fuel from the identified 20 radio towers.
Impact on Capabilities:	This action will ensure communication capabilities are available in the region, ensuring first responders are able to communicate during an emergency.
Climate Change Considerations:	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services, Property Protection



Priority	High	
Alternatives	Action	Evaluation
	No action	Current problem remains
	State agencies maintain only	Maintenance may not occur as frequently as needed
	County maintains only	Maintenance may not occur as frequently as needed



Action 2024-BurlingtonCounty-23. Communication Hardening

Lead Agency:	Burlington County Public Safety	
Supporting Agencies:	Burlington County Emergency Management, Service Providers	
Hazard(s) of Concern:	Dam Failure, Earthquake, Extreme Temperatures, Flood, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Emergency communications have been previously impacted during hazard events in the eastern portion of Burlington County, leading to loss of communication during hazard events.	
Description of the Solution:	The County will work to strengthen and harden communications with eastern portion of County to prevent loss of communication during hazard events.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA BRIC, County Budget	
Implementation Timeline:	5 years	
Goals Met:	1, 2, 5, 6	
Benefits:	This action will benefit first responders by providing communication services in areas which may have gaps in connection. Furthermore, this action would benefit the populations in the eastern portion of the county.	
Impact on Socially Vulnerable Populations:	This action will benefit socially vulnerable populations by providing better communication services, which can alert the populations to emergencies in the area.	
Impact on Future Development:	This action will strengthen communications at future developments in the eastern portion of the county.	
Impact on Critical Facilities/Lifelines:	This action will create a new critical facility and expand the communications lifeline.	
Impact on Capabilities:	This action will enhance communication capabilities in the region, ensuring first responders are able to communicate during an emergency.	
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often. This action will increase communication capabilities needed during hazard events.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Emergency Services	
Priority	High	
Alternatives	Action	Evaluation
	No action	Current problem remains



	County buys cellular signal extender for all first responders	Cost prohibitive
	County contracts with service provider for Cell on Wheels (COW)	Cost prohibitive, unknown availability



Action 2024-BurlingtonCounty-24. Dam Owner Partnership

Lead Agency:	Burlington County Public Safety	
Supporting Agencies:	Burlington County Emergency Management, Burlington County Resource Conservation, Burlington County Engineering, NJ DEP	
Hazard(s) of Concern:	Dam Failure, Flood	
Description of the Problem:	There are multiple high-hazard potential dams located throughout the County.	
Description of the Solution:	The County will work with the owners of the dams to ensure inspections and safety procedures are up to date. Emergency Action Plans (EAPs) will be collected and shared with municipal offices of emergency management.	
Estimated Cost:	Low	
Potential Funding Sources:	County budget	
Implementation Timeline:	Within 5 years	
Goals Met:	1, 2, 7	
Benefits:	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.	
Impact on Socially Vulnerable Populations:	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.	
Impact on Future Development:	This action will ensure any new development near dams in the County are protected from dam failure.	
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.	
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.	
Climate Change Considerations:	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Preventative Measures	
Priority	High	
Alternatives	Action	Evaluation



	No Action	County will be unaware of any safety concerns for the dam or its condition
	Utilize information from NJ DEP	Owners may not be required to submit a safety plan to the State
	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory



Action 2024-BurlingtonCounty-25. Burlington County – U.S. Route 130 Corridor Climate Change-Related Hazard Vulnerability Assessment

Lead Agency:	Burlington County Department of Public Works
Supporting Agencies:	NJDEP Office of Climate Resilience Resilient NJ: Municipal Assistance Program, Beverly City, Burlington City, Burlington Township, Cinnaminson Township, Delran Township, Edgewater Park Township, Florence Township, Palmyra Borough, Riverton Borough, Riverside Township, and Willingboro Township.
Hazard(s) of Concern:	Drought, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	The municipalities along the U.S. Route 130 corridor in Burlington County are impacted primarily by riverine flooding that may be worsened by climate change. These communities along the Delaware River and its tributaries, including the Rancocas, Assiscunk, and Pompeston creeks, are frequently impacted by severe flooding events. A joint regional climate change resilience planning effort is needed to assess future risks and identify local and regional solutions.
Description of the Solution:	<p>The NJ DEP will engage consultants on behalf of the communities to complete this work. The resilience planning process to develop the Climate Change-Related Hazard Vulnerability Assessment (CCRHVA) involves the following:</p> <ul style="list-style-type: none">• Community engagement and outreach to plan for each municipality;• Examination of current local conditions through research and review of data, reports, plans, and other information that have shaped the community's and the region's character;• Assessments to understand the current and future local impacts of climate change; and• Identification and prioritization of appropriate strategies, design standards and other resilience actions that address and/or minimize the impacts of climate change and other natural hazards assessed in the CCRHVA. <p>In response to the vulnerabilities identified in the vulnerability assessment, potential strategies, regulations, and design standards that could be implemented to reduce, mitigate, or avoid risks, as well as increase resilience will be identified. Considerations include land use strategies, design standards/ building codes, zoning ordinances, and programming. Resilience actions appropriate for the county or other state/regional entities, and those where cooperation/ coordination by multiple municipalities, if necessary, will be identified in addition to municipal-specific actions. For each action, responsible parties, estimated rough costs for implementation (if applicable), possible sources of funding, and the estimated timelines will be identified.</p>



Estimated Cost:	\$760,000 for full region
Potential Funding Sources:	NOAA through the New Jersey Coastal Management Program
Implementation Timeline:	Within 3 years
Goals Met:	1, 2, 3, 4, 5, 6, 7
Benefits:	<p>This effort will result in the following benefits:</p> <ul style="list-style-type: none"> • Current and future threats to, and vulnerabilities of, each municipality associated with climate-related hazards, including, but not limited to, increased temperatures, drought, all types of flooding, hurricanes, increased risk of fire, and sea-level rise will be analyzed. • Assess the threats to, and vulnerabilities of, socially vulnerable populations will be assessed and actions to address the impacts will be identified. • A buildout analysis of future residential, commercial, industrial, and other development in each municipality, and an assessment of the threats and vulnerabilities to that development will be developed • Critical facilities, utilities, roadways, and infrastructure necessary for evacuation purposes and sustaining quality of life during a natural disaster and immediately thereafter will be identified. • Potential impacts of natural hazards on the relevant elements of each individual master plan will be analyzed. Considerations include community facilities plans, open space, housing, economic development, circulation/ transportation, sustainability, health, capital improvements, redevelopment, etc. • Potential strategies and design standards that could be implemented to reduce or avoid risks associated with natural hazards will be identified.
Impact on Socially Vulnerable Populations:	This effort will assess the potential risks and impacts of hazards on socially vulnerable and underserved populations and describe how they may exacerbate disadvantages. Actions will be developed to reduce risks for these populations.
Impact on Future Development:	The assessments will include a geographically based build-out analysis of current and future residential, commercial, industrial, and other development in each municipality on developed, underdeveloped, and undeveloped land, to inform an assessment of the exposure and vulnerabilities of those land uses in relation to the hazards identified.
Impact on Critical Facilities/Lifelines:	The assessments will identify and assess the exposure and vulnerability of critical facilities, systems, utilities, roadways, and other infrastructure necessary for evacuation purposes and sustaining quality of life during and immediately after a natural disaster. The assessments will also identify and assess the exposure and vulnerability of community assets important to community character, regional significance, and sustaining daily quality of life (e.g. neighborhood centers, gas stations, and grocery stores). This includes but is not limited to natural resources and systems,



	economic assets, social, cultural, government, or professional services, and other community priorities be assessed. Access to important and critical assets and services located outside of the municipalities should also be evaluated as well as community liabilities that have the potential to cause harm, such as contaminated sites.	
Impact on Capabilities:	This effort will allow for incorporation of climate resilience into municipal master plans to enhance planning and regulatory capabilities.	
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of climate related events. This project will include a comprehensive assessment of the vulnerability to current and future climate change-related hazards of the entire multi-municipal region as well as for each of the individual municipalities. The vulnerability assessment will consider all climate change impacts through 2100.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Preventative Measures	
Priority	High	
Alternatives:	Action	Evaluation
	No Action	-
	Elect not to participate in program but develop municipal specific CCRHVA	Costly and lacking regional coordination
	Elect not to participate in program but develop municipal specific assessment without climate change impacts	Costly, lacking regional coordination, and not meeting state requirements



Action 2024-BurlingtonCounty-26. Address Dams with Poor and Unsatisfactory Safety Conditions

Lead Agency:	County Engineer
Supporting Agencies:	Dam managers, NJDEP Bureau of Dam Safety, municipal engineers
Hazard(s) of Concern:	Dam Failure, Flood
Description of the Problem:	Several dams in Burlington County have received poor or unsatisfactory safety ratings on their most recent inspections. Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.
Description of the Solution:	The County Engineer will work with dam managers, the NJDEP Bureau of Dam Safety, and municipal engineers to review the most recent inspections of dams that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.
Estimated Cost:	Low for initial assessment of options, TBD for total cost based on mitigation actions selected
Potential Funding Sources:	HMGP, BRIC, FMA, NJDEP, Annual Budget
Implementation Timeline:	Within 5 years
Goals Met:	1, 2
Benefits:	<ul style="list-style-type: none"> Dam failure will be avoided, which will reduce the risk of harm to people and property downstream. Certain safety requirements will be met that can allow for funding to be received for further mitigation projects.
Impact on Socially Vulnerable Populations:	The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.
Impact on Future Development:	Future development downstream of dams will also be protected from dam failure.
Impact on Critical Facilities/Lifelines:	Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.
Impact on Capabilities:	N/A



Climate Change Considerations:	Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.	
Mitigation Category	Education and Awareness Program, Structure and Infrastructure Project	
CRS Category	Public Information, Structural Project	
Priority	High	
Alternatives:	Action	Evaluation
	No Action	Risk of dam failure remains or increases over time
	Encourage NJDEP to work with municipalities without County involvement	Improvements made but may lack appropriate support from County, including data and potential funding access
	Remove all dams	Without proper analysis, dam removal may increase flooding risk



The prioritization criteria provided in Volume 1, Section 6 (Mitigation Strategy) identify 14 evaluation/prioritization criteria to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing actions as 'High', 'Medium', or 'Low.' The table below provides a summary of the prioritization of all proposed mitigation initiatives for the HMP update.

Table 9.1-18. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Community Objectives	Total	High / Medium / Low
2024-BurlingtonCounty-01	Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2024-BurlingtonCounty-02	Back-Up Power at Critical Facilities	1	1	1	1	1	0	0	1	1	1	1	1	1	1	12	High
2024-BurlingtonCounty-03	Municipal Planning and Zoning Support	1	1	1	1	1	1	1	1	1	1	1	1	1	0	13	High
2024-BurlingtonCounty-04	CRS Program Promotion	1	1	1	1	1	1	1	1	1	0	1	1	0	1	12	High
2024-BurlingtonCounty-05	Public Information Strategy	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2024-BurlingtonCounty-06	Flood Mitigation on Infrastructure	1	1	1	1	1	0	1	1	1	0	1	1	1	0	11	High
2024-BurlingtonCounty-07	Public Information on Hazard Awareness	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2024-BurlingtonCounty-08	Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2024-BurlingtonCounty-09	Hazard Mitigation Plan Maintenance	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2024-BurlingtonCounty-10	Digital Elevation Model Upgrades	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2024-BurlingtonCounty-11	Flood Prone Structures	0	1	1	1	1	0	1	1	1	0	1	0	1	1	10	Medium
2024-BurlingtonCounty-12	Critical Facility Back-Up Power for Municipalities	1	1	1	1	1	0	0	1	1	1	1	1	1	1	12	High



Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Community Objectives	Total	High / Medium / Low
2024-BurlingtonCounty-13	County Road Drainage Improvements	1	1	1	1	1	0	1	0	1	0	1	1	1	1	11	High
2024-BurlingtonCounty-14	Facility Retrofits	0	1	1	1	1	0	0	1	1	1	1	0	1	1	10	Medium
2024-BurlingtonCounty-15	Public Outreach and Education	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2024-BurlingtonCounty-16	Facility Inventories	0	1	1	1	1	0	0	0	1	1	1	1	1	1	11	High
2024-BurlingtonCounty-17	Damage Assessment MOUs	0	1	1	1	1	1	0	0	1	1	1	1	1	0	11	High
2024-BurlingtonCounty-18	Damage Assessment Training	0	1	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2024-BurlingtonCounty-19	FPA Planning Participation	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2024-BurlingtonCounty-20	Delaware River Boat Launch	1	1	1	1	1	0	0	1	0	0	1	1	1	1	10	Medium
2024-BurlingtonCounty-21	Route 73 Flooding	1	0	1	1	1	0	1	1	1	1	1	1	1	1	12	High
2024-BurlingtonCounty-22	Radio Tower Wildfire Vulnerability	1	1	1	1	1	1	0	1	0	1	1	1	1	1	12	High
2024-BurlingtonCounty-23	Communication Hardening	1	1	1	1	1	0	0	1	0	1	1	1	1	1	11	High
2024-BurlingtonCounty-24	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2024-BurlingtonCounty-25	Burlington County – U.S. Route 130 Corridor Climate Change-Related Hazard Vulnerability Assessment	1	1	1	1	1	1	1	1	1	1	1	1	1	0	13	High
2024-BurlingtonCounty-26	Address Dams with Poor and Unsatisfactory Safety Conditions	1	1	1	1	0	0	1	1	1	1	1	0	1	1	11	High

Note: Volume 1, Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).