1. INTRODUCTION

1.1 Background

The Federal Emergency Management Agency (FEMA) encourages multi-jurisdictional planning for local hazard mitigation. Such planning efforts can generate a unified local voice on hazard mitigation, with cross-jurisdictional support for a hazard mitigation plan's recommended mitigation actions. They also help to form working relationships among participants' emergency managers, floodplain administrations, and other development agencies (FEMA 2021). Eligible participants for multi-jurisdiction hazard mitigation plans are local governments defined as follows in Title 44 of the Code of Federal Regulations, Part 201 (Mitigation Planning):

"Any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity." (44 CFR Section 201.2)

In multi-jurisdictional hazard mitigation planning, every participating jurisdiction must meet the federal requirements for local mitigation planning. This means that each jurisdiction must actively participate in the planning process and must officially adopt the plan (44 CFR Section 201.6a(4)).

For the Hudson County Hazard Mitigation Plan (HMP), a Planning Partnership was formed to leverage resources and to meet the federal local mitigation planning requirements for as many eligible governments in the County as possible. Members of the Planning Partnership consisted of representatives from each participating jurisdiction. Hudson County was the lead agency for this planning effort and directed the planning process with assistance from a contract planning consultant (Tetra Tech). A Steering Committee with broad representation across the county provided guidance and direction for the HMP planning process. Each participating planning partner has prepared a jurisdictional annex to this plan.

This chapter describes the Hudson County HMP Planning Partnership, its responsibilities throughout the planning process, and the jurisdictional annexes developed as a result of the plan update efforts. The remaining chapters in this volume of the HMP present the annexes for each participating jurisdiction.

1.2 Planning Partner Involvement

1.2.1 Initial Solicitation and Letters of Intent

Hudson County solicited the participation of all eligible jurisdictions in the County at the commencement of this project. All jurisdictions interested signed a letter of intent and/or a resolution committing their participation and resources to the development of the Hudson County HMP (Appendix A). The following is a list of the jurisdictions that participated

in the update process and have met the minimum requirements of participation as established by the County and the Steering Committee:

- Hudson County
- City of Bayonne
- Borough of East Newark
- Town of Guttenberg
- Town of Harrison
- City of Hoboken
- City of Jersey City
- Town of Kearny
- Township of North Bergen
- Town of Secaucus
- City of Union City
- Township of Weehawken
- Town of West New York
- Jersey City Municipal Utilities Authority
- Kearny Municipal Utilities Authority
- North Bergen Municipal Utilities Authority
- North Hudson Sewerage Authority
- Secaucus Municipal Utilities Authority

1.2.2 Planning Partner Expectations

The following list of planning partner expectations was agreed to in each letter of intent to participate:

- Identify municipal representatives to serve as the planning points of contacts. These people were responsible for representing the community and assuring that these participation expectations are met by their community.
- Support the Steering Committee selected to oversee the development of this plan.
- Provide representation at municipal Planning Committee meetings.
- Provide data and information about the community as requested by the Steering Committee or the contract consultant, including:
  - Structure and facility inventory data
  - New development and anticipated development
  - Natural hazard risk areas
  - Natural hazard events and losses that have impacted the community in the last five years
  - Plans, studies, reports, and ordinances addressing natural hazard risk
  - Mitigation activity in the community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in the community, which may include:
  - Providing notices of the planning project on the municipal website with links to a County project website

The **Planning Partnership** is responsible for developing and reviewing draft sections of the hazard mitigation plan, creating the mitigation strategy for their jurisdiction, and adopting the final plan. Members of the Planning Partnership have the expertise to develop the plan and have their jurisdiction's authority to implement the mitigation strategy developed during the planning process.

  - Providing notice of the planning project, the availability of plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
  - Advertising and supporting public meetings in the area
  - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in the community.
- Assist with the identification of stakeholders within the community who should be informed and potentially involved with the planning process.
- Complete data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant (or high or medium) risk to the community.
- Involve the local NFIP Floodplain Administrator in the planning process.
- Review draft plan sections when requested and provide comment and input as appropriate.
- Adopt the plan by resolution of the local governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

Under the plan implementation and maintenance protocol established in Volume I of the HMP, it is intended that the Planning Partnership will remain active to support maintenance of the HMP after the plan has been adopted. By adopting this plan, each planning partner agrees to the plan implementation and maintenance protocol. Given that individual commitments change over time, it will be the responsibility of each jurisdiction and its points of contact to inform the County's coordinator for this HMP of any changes in representation.

1.3 Jurisdictional Annex Preparation Process

Jurisdictional annexes provide a unique, stand-alone guide to mitigation planning for each jurisdiction participating in a multi-jurisdiction HMP. Hudson County HMP is organized so that there is an annex for Hudson County and for every jurisdiction within the County's borders. This volume of the HMP includes an annex for each jurisdiction in Hudson County, including those that did not fully participate.

Workshops and additional meetings (in person, by email, or by teleconference) to complete the jurisdictional annexes were held with the County, the contract consultant, and the Steering Committee throughout the planning process. Details regarding these meetings are described further in Volume I.

1.3.1 Incorporation of Information from Previous HMP

In order to facilitate the update of the jurisdictional annexes, data from the 2020 Hudson County HMP annexes was transferred to the most current annex format, which has evolved to meet changing federal and state criteria. Clear instructions were provided to the representatives of each planning partner. This transfer of information provided a basis to address the following:

- Changes in local capabilities and vulnerabilities

- The current status of the 2020 HMP mitigation strategy
- A new mitigation strategy to address identified issues and to increase community resiliency

1.3.2 Kickoff Meeting

The County invited all municipalities to participate in a planning partner kickoff meeting held on March 7, 2024, to provide an overview of the planning process, including meetings and worksheets that would be used to gather information for annex preparation. Key elements of the worksheets were discussed and subsequently completed by the appropriate jurisdictional personnel for each worksheet. The worksheets were collected, and the information was incorporated into each jurisdictional annex. In the event additional information was needed, the jurisdictional point of contact was contacted to provide more input into their annex.

1.3.3 Hazard Ranking Exercise

At the risk assessment meeting on December 10, 2024 the consultant summarized the findings of the risk assessment for the hazards of concern evaluated in this HMP, including an initial ranking of hazards using the risk-related ranking methodology described in Volume I. Each planning partner was asked to review the hazard ranking for its jurisdiction and revise as appropriate based on history of events, probability of occurrence, and the potential impact on people, property, and the economy. This exercise familiarized the planning partners with how to use the risk assessment as a tool to support other planning and hazard mitigation processes and to help prioritize types of mitigation actions that should be considered. Hazards that were ranked as “high” for each jurisdiction as a result of this exercise were considered to be priorities for identifying appropriate mitigation actions, although jurisdictions also identified actions to mitigate “medium” or “low” ranked hazards as appropriate.

1.3.4 Mitigation Strategy Workshop

A mitigation strategy workshop was held on January 28, 2025, to provide an overview on how to develop a strong mitigation strategy. In preparation for this workshop, the consultant provided a list of problem areas and vulnerabilities identified during the planning process, along with feedback from the citizen survey, to support the development of relevant projects for the mitigation strategy. Workshop participants received the following FEMA publications to use as a resource as part of a comprehensive review of all possible activities and mitigation measures to address hazards of concern:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

This workshop included the development of focused problem statements based on the impacts of natural hazards in the County and its communities. These problem statements provide detailed descriptions of problem areas, including known impacts on the jurisdiction (past damage, loss of service, etc.). Where possible, the statements include the street address of the problem location, adjacent streets, water bodies, and well-known structures as well as a brief description of existing site conditions (topography, terrain, hydrology). The problem statements form a bridge between the risk assessment (which quantifies impacts on each community), the capability assessment (which identifies capabilities for reducing hazard risks and supporting hazard mitigation), and the development of actionable mitigation strategies.

The County and the mitigation consultant worked with each jurisdiction to identify clear, implementable mitigation actions and to further support the completion of the jurisdictional annexes. The NJOEM Action Worksheet template and instructions are provided in Appendix J (NJOEM Planning Guidance).

1.4 Jurisdictional Annex Format

The jurisdictional annex format is designed to document local compliance with the 44 CFR local mitigation planning regulations. It also achieves the following:

- Providing a locally relevant synthesis of the overall mitigation plan that can be readily presented, distributed, and maintained
- Facilitating local understanding of the community's risk from natural hazards
- Facilitating local understanding of the community's capabilities to manage natural hazard risk, including opportunities to improve those capabilities
- Facilitating local understanding of the efforts the community has taken, and plans to take, to reduce its natural hazard risk
- Facilitating the implementation of mitigation strategies, including the development of grant applications
- Providing a framework by which the community can continue to capture relevant data and information for future plan updates

The following are the elements of the jurisdictional annex.

- **Section X.1: Hazard Mitigation Planning Team:** Identifies the hazard mitigation planning primary and alternate contacts and floodplain administrator. Provides details on which departments were involved in the development of the jurisdictional annex. The widest range of departments, stakeholders, and persons familiar with the jurisdiction should be involved in the development of the jurisdictional annexes. Further detail on participants is provided in Volume I.
- **Section X.2: Community Profile:** Provides a profile of the jurisdiction, including population and socially vulnerably populations.
- **Section X.3: Jurisdictional Capability Assessment and Integration:** Provides an inventory and evaluation of the jurisdiction's tools, mechanisms, and resources available to support hazard mitigation and natural hazard risk reduction. Tables provide an inventory of the jurisdiction's planning, regulatory, administrative, technical, and fiscal capabilities, its level of participation in state and federal programs designed to promote and incentivize local risk reduction efforts, and its adaptive capacity to adjust to damage and respond to consequences.
- **Section X.4: National Flood Insurance Program (NFIP) Compliance:** Summarizes jurisdiction-specific information related to managing and regulating the regulatory floodplain, including current and future compliance with the NFIP.
- **Section X.5: Growth/Development Trends:** Summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development.
- **Section X.6: Jurisdictional Risk Assessment:** Provides information regarding each jurisdiction's vulnerability to the identified hazards. Full data and information on the hazards of concern, the methodology used to develop

the vulnerability assessments, and the results of those assessments that serve as the basis of these local hazard rankings may be found in Volume I.

- ***Hazard Area:*** Each annex includes a map (or series of maps) illustrating identified hazard zones and critical facilities. The maps also show areas of known or anticipated future development, as available.
- ***Hazard Event History:*** Identifies hazard events that have caused significant impacts within the jurisdiction, including a summary characterization of those impacts identified by the jurisdiction.
- ***Hazard Ranking and Vulnerabilities:*** Each jurisdiction has differing degrees of risk exposure and vulnerability. The local hazard ranking identifies each jurisdiction's local degree of risk to each hazard, supporting the selection and prioritization of actions to reduce the highest levels of risk for each community.
- ***Critical Facilities:*** Identifies potential flood losses to critical facilities in the jurisdiction based on the flood vulnerability assessment process presented in Volume I.
- ***Identified Issues:*** Presents other specific hazard vulnerabilities as identified by the jurisdiction.

- **Section X.7: Mitigation Strategy and Prioritization:** Discusses and provides the status of past mitigation actions and status and describes proposed hazard mitigation actions and prioritization.
  - ***Past Mitigation Action Status:*** Where applicable, a review of progress on the jurisdiction's prior mitigation strategy is presented, identifying the disposition of each prior action in the jurisdiction's updated mitigation strategy. Other completed or ongoing mitigation activities that were not specifically part of a prior local mitigation strategy may be included in this subsection as well.
  - ***Completed Mitigation Actions Not Identified in the Previous Mitigation Strategy:*** Other completed or ongoing mitigation activities that were not specifically part of a prior local mitigation strategy may be included in this subsection as well.
  - ***Proposed Hazard Mitigation Actions for the Plan Update:*** Tables and action worksheets at the end of each annex present the jurisdiction's updated mitigation strategy, a summary of the local mitigation strategy prioritization and a summary of the action categories and hazards addressed.

Each jurisdiction's annex is a living document that will continue to be improved as resources permit. Continued efforts to maintain the annex will ensure that it remains current and will improve its effectiveness as the key tool, reference, and guiding document by which the jurisdiction will implement hazard mitigation locally.

1.5 Coverage Under the Plan

Of the 17 original planning partners, 17 fully met the participation requirements specified by the Steering Committee and have annexes included in this volume. Those that did not meet the requirements will not be able to seek FEMA or state approval at the time of plan submittal, nor will they be eligible to obtain FEMA grant funding. Table 1-1 lists the status of each jurisdiction. Note that participation in scheduled Planning Partnership meetings provides only a partial indication of the level of participation of each jurisdiction. Appendices in Volume I provide details on further participation and meeting attendance.

Table 1-1. Jurisdictional Status

	Letter of Intent to Participate	Attended Workshops, Meetings, and Calls	Provided Update on Past Projects	Submitted Mitigation Actions for Current Plan	Seeking Approval for Adoption (meets all previous requirements)
Hudson County	N/A	X	X	X	X
City of Bayonne	X	X	X	X	X
Borough of East Newark	X	X	X	X	X
Town of Guttenberg	X	X	X	X	X
Town of Harrison	X	X	X	X	X
City of Hoboken	X	X	X	X	X
City of Jersey City	X	X	X	X	X
Town of Kearny	X	X	X	X	X
Township of North Bergen	X	X	X	X	X
Town of Secaucus	X	X	X	X	X
City of Union City	X	X	X	X	X
Township of Weehawken	X	X	X	X	X
Town of West New York	X	X	X	X	X
Jersey City Municipal Utilities Authority	X	X	X	X	X
Kearny Municipal Utilities Authority	X	X	X	X	X
North Bergen Municipal Utilities Authority	X	X	X	X	X
North Hudson Sewerage Authority	X	X	X	X	X
Secaucus Municipal Utilities Authority	X	X	X	X	X

2. COUNTY OF HUDSON

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the County of Hudson with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Hudson, describes who participated in the planning process, assesses Hudson's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

2.1 Hazard Mitigation Planning Team

The County of Hudson identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many County departments. The Office of Emergency Management represented the community on the Hudson County HMP Planning Partnership and Steering Committee and supported the local planning process by securing input from Hudson County jurisdictions 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.

Table 2-1 summarizes Hudson County officials who participated in the development of the annex and in what capacity. Additional documentation of Hudson County's planning activities through Planning Partnership meetings is included in Volume I.

Table 2-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Edoardo Ferrante, Jr OEM Coordinator Address: Juneau Building 110 Hackensack Ave Kearny, NJ Phone Number: 201-369-5200 Email: eferrante@hcnj.us	Name/Title: Peter Nevins, OEM Planner Address: Juneau Building 110 Hackensack Ave Kearny, NJ Phone Number: 201-369-5200 Email: pnevins@hcnj.us
National Flood Insurance Program Floodplain Administrator	
This is reported at the municipal level.	
Additional Contributors	
Name/Title: Rosa Abrantes Method of Participation: Participated in the planning process and provided support for grant management.	
Name/Title: Bob Grewe, OEM Emergency Response Specialist Method of Participation: Participated in the planning process.	
Name/Title: Ralph Sax, County Roads and Public Property Deputy Director Method of Participation: Participated in the planning process.	
Name/Title: Sean O'Connor, Hudson County Communications Method of Participation: Participated in the planning process.	
Name/Title: Sam Schroeder, Planner Method of Participation: Participated in the planning process.	

Name/Title: Tom Malavasi, County Engineer Method of Participation: Participated in the planning process.
Name/Title: Vincent Viera, GIS Specialist Method of Participation: Participated in the planning process.

2.2 Community Profile

2.2.1 Brief History

Hudson County is the smallest, most urbanized and most densely populated county in the State of New Jersey. Comparatively, Hudson County is the sixth most densely populated county in the nation.

Residential areas, business districts, commercial and industrial areas, various transportation systems, natural features, waterfront areas, and educational facilities are all located and make up today's Hudson County. This combination of natural and developed features including proximity to water, along with a growing population and being the most densely populated county in New Jersey, lays the foundation for Hudson County's vulnerability to natural hazards and effects of climate change, both in terms of exposure to and the potential impacts from hazard events.

The County's urbanized core is comprised of the Cities of Hoboken and Jersey City. The northern area of the County is made up of five densely populated communities: The Towns of Guttenberg and West New York, Townships of North Bergen and Weehawken, and the City of Union City. The City of Bayonne makes up the County's southern peninsula. Western Hudson County contains smaller, less densely populated areas and includes the Borough of East Newark and the Towns of Harrison and Kearny. The northwestern area of the County consists of the Town of Secaucus.

2.2.2 Location

The County is a peninsula located in the northeast section of New Jersey, west of New York City, and located within the New York Metropolitan area. Hudson County is bordered by Newark Bay and the Passaic and Hackensack Rivers to the west, the Hudson River and New York City to the east, the Kill Van Kull to the south and Bergen County to the north. The Hackensack River runs through the center of the County from north to south.

2.2.3 Governing Body Format

The governing body of Hudson County is the Hudson County Board of County Commissioners. This legislative body is composed of nine commissioners, each elected from a specific district within the county. The Board is responsible for adopting the county budget, enacting ordinances and resolutions, and overseeing a wide range of county services, including public safety, infrastructure, and social services. In addition to the Board of County Commissioners, Hudson County operates under the leadership of a County Executive, who is elected at-large and is responsible for the day-to-day administration of County government. The County Executive implements policies set by the Board and manages the various departments and agencies that deliver services to residents

2.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for Hudson County was 724,854, a 6.4 percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 6.5 percent of the population is 5 years of age or younger, 12.0 percent is 65 years of age or older, 12.9 percent is non-English speaking, 8.4 percent is below the poverty threshold, and 13.7 percent is considered disabled.

2.2.4.1 ALICE in Hudson County

ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. While conditions have improved for some households, many continue to struggle, especially as wages fail to keep pace with the rising cost of household essentials (housing, child care, food, transportation, health care, and a basic smartphone plan). Households below the ALICE Threshold – ALICE households plus those in poverty – can't afford the essentials.

According to 2021 Point-in-Time-Data from ALICE, 24 percent of the 292,000 households in Hudson County are ALICE households (compared to the state average of 26 percent). The median household income in Hudson County is $80,329, and the County sees a labor force participation rate of 69 percent. Hudson County faces low household income compared to the state average of $89,296 and while the County does carry a 3 percent higher labor participation rate compared to state numbers, 15 percent of Hudson County households live in poverty.

2.3 Jurisdictional Capability Assessment and Integration

Hudson County performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

2.3.1 Planning and Regulatory Capability and Integration

Table 2-2 summarizes the planning and regulatory tools that are available to Hudson County.

Table 2-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Zoning/Land Use Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Subdivision Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Site Plan Code	Yes	Hudson County Planning Board	Local and County	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The County's Planning Board, with staff support from the Division of Planning review, reviews all applications for development along County roads that may affect traffic and drainage facilities. The Planning Board promotes sustainability and environmentally friendly development through their Land Development Regulations, which includes refined Green Stormwater Infrastructure (GSI) techniques and design and construction standards, along with descriptive text for techniques.				
Stormwater Management Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
How has or will this be integrated with the HMP and how does this reduce risk? 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.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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. 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. The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions: • 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? Not all provisions of this law have become effective at the time of the writing of this plan.				
Growth Management	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Flood Damage Prevention Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other: Hudson County Complete Streets Policy, 2012	Yes	Hudson County Complete Streets Policy, 2012	County	-
How has or will this be integrated with the HMP and how does this reduce risk? Provides safe and convenient access for all users by designing and operating a comprehensive, integrated, connected, multi-modal network of transportation options. The policy directs Complete Streets practices to be integrated into the planning, design, construction, maintenance and operation of County roads, bridges, parks and building projects funded by the County's Capital Improvement Plan, to the extent possible. Part D of the Policy states that "Complete Street Policies shall support the goals of the Hudson County Master Plan."				
PLANNING DOCUMENTS				
General/Comprehensive/Master Plan	Yes	Hudson County Master Plan 2002; Re-Examination of the Master Plan February 2017	County	Division of Planning
How has or will this be integrated with the HMP and how does this reduce risk? Hudson County Master Plan 2002; Re-Examination of the Master Plan February 2017. Site Plan and Subdivision Regulations pursuant to NJSA 40:27-6 et. seq. The plan summarizes impacts from Superstorm Sandy and displays floodplain and storm surge maps. The plan emphasizes the importance of resiliency planning to mitigate County vulnerability to natural hazards. This plan identifies recommended mitigation and resilience actions that align with the 2015 and 2020 HMPs.				
Capital Improvement Plan	Yes	-	Local	-
How has or will this be integrated with the HMP and how does this reduce risk? Per NJSA 40:55D-29 the governing body is authorized to direct the planning board to prepare a CIP with at least a six-year planning horizon. Capital Improvements are identified within the local budget and administered locally.				
Disaster Debris Management Plan	Yes	Hudson County Disaster Debris Management Plan, adopted in 2017	County	Division of Planning
How has or will this be integrated with the HMP and how does this reduce risk? Addresses the jurisdiction's coordinated response to manage debris following a debris-generating event.				
Floodplain Management or Watershed Plan	Yes	Hackensack Meadowlands Floodplain Management Plan, 2005	Local	-
How has or will this be integrated with the HMP and how does this reduce risk? Discusses flood hazard areas; recommended actions.				
Stormwater Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	Yes	Open Space Plan, 2013	County	County Parks
How has or will this be integrated with the HMP and how does this reduce risk? The 2013 Open Space Re-examination Report documents Superstorm Sandy damages to Liberty State Park ($20 million), County Parks ($500,000) and to municipal parks.				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	Yes	Comprehensive Economic Development Strategy – 5 year plan 2015-2019, updated in 2016	County	County Administration
How has or will this be integrated with the HMP and how does this reduce risk? Comprehensive Economic Development Strategy – 5 year plan 2015-2019, updated in 2016. To be updated in 2020 for the new 5-year CEDS report 2020-2024.				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	Yes	Hudson County Community Forestry Plan, December 2017	County, Local	County Parks
How has or will this be integrated with the HMP and how does this reduce risk? This plan establishes a plan and guidelines for proper maintenance and expansion of the County's urban forestry program and resources, is in compliance with the NJ Shade Tree and Community Forestry Assistance Act which provides liability protection and affords the County access to the Community Stewardship Incentive Program and associated grant opportunities. This plan and associated initiatives are assist with improving the effect of urban heat islands (extreme temperature hazard in the HMP).				
Transportation Plan	Yes	Circulation Element of the County Master Plan, 2017	County	Transportation
How has or will this be integrated with the HMP and how does this reduce risk? The Circulation Element of the Hudson County Master Plan provides an overview of transportation in Hudson County, sets goals and objectives based on current patterns and potential future trends, and includes recommendations to address the current issues, and improve the safety, mobility, and accessibility of the county's transportation system. The Circulation Element includes a section detailing the damage to the County's transportation network from Hurricane Sandy and other storm events, and the new goals and objectives include resiliency priorities				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	Yes	Comprehensive Economic Development Strategy – 5 year plan 2015-2019, updated in 2016	Federal, State	-
How has or will this be integrated with the HMP and how does this reduce risk? Comprehensive Economic Development Strategy – 5 year plan 2015-2019, updated in 2016. To be updated in 2020 for the new 5-year CEDS report 2020-2024.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Other: • **Recreational and Open Space Inventory** • **Parks Master Plan** • **Wastewater Management Plan**	Yes	Recreational and Open Space Inventory, 2017 Hudson County Parks Master Plan, 2016 Wastewater Management	County	Parks Parks -
How has or will this be integrated with the HMP and how does this reduce risk? The Recreational and Open Space Inventory (2017) lists all Green Acres-funded properties as well as all other lands held for conservation and/or recreation purposes. The 2016 Hudson County Parks Master Plan outlines a 5-year plan for capital improvements in the nine County Parks. The Hudson County Master Plan Re-examination Community Facilities element works in conjunction with the Parks Master Plan. NJDEP provided planning funding to develop/update the County wastewater management plans with new regulations.				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Hudson County EOP	County	OEM
How has or will this be integrated with the HMP and how does this reduce risk? Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years. ESF #6 (Mass Care) has just been updated in coordination with the American Red Cross, Hudson County Health and Human Services and Hudson County Office of Emergency Management. This document as standard practice for prevention, mitigation, preparedness, response, and recovery during emergency operations. ESF #6 references the Multi-Jurisdictional Hazard Mitigation Plan.				
Continuity of Operations Plan	Yes	Hudson County Continuity of Operations Plan	County	OEM
How has or will this be integrated with the HMP and how does this reduce risk? The plan provides a guide to assess the impact of a variety of disasters on the County government, and that essential services and facilities remain operational or are recovered as soon as possible.				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	Yes	Hudson County Strategic Recovery Report, February 2014	County	Division of Planning
How has or will this be integrated with the HMP and how does this reduce risk? Hudson County Strategic Recovery Report (February 2014). Several mitigation actions were identified in VII Action Plan in the report that aligned with the 2015 Hudson County Hazard Mitigation Plan. The Hudson County Division of Planning, in partnership with other County Divisions and Offices, including OEM, will pursue a recovery planning process for the short-term and long-term recovery of the COVID-19 Pandemic.				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

2.3.2 Development and Permitting Capability

Table 2-3 summarizes the capabilities of Hudson County to oversee and track development.

Table 2-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	No	Hudson County Planning Board reviews and approves all developments abutting County roads
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Hudson County Planning Board Application Form requires applicants to identify whether the property for proposed development is located within the flood hazard area. An additional analysis of geographic locations of applications would determine proximity of any other developments to hazards.
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	Yes	Draft NJSEA Master Plan indicates a build-out analysis has been performed Hudson County Division of Planning has prepared a GIS analysis of vacant parcels throughout the county. However, this does not cover redevelopment of existing buildings.
Describe the level of buildout in your jurisdiction.	N/A	

2.3.3 Administrative and Technical Capability

Table 2-4 summarizes potential staff and personnel resources available to Hudson County and their current responsibilities that contribute to hazard mitigation.

Table 2-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	Division of Planning manages the County's Planning Board
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	There is no committee outside the HMP update process
Environmental Board/Commission	Yes	Hudson County Economic Development Strategy Committee (CEDS)
Open Space Board/Committee	Yes	Hudson County Open Space Board with local representatives
Economic Development Commission/Committee	Yes	Hudson County CEDS Committee

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Public Works/Highway Department	Yes	Division of County Roads and Bridge; Division of Engineering
Construction/Building/Code Enforcement Department	No	-
Emergency Management/Public Safety Department	Yes	Office of Emergency management
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Tree trimming, sewer and catch basin cleaning
Mutual aid agreements	Yes	With municipal fire and police departments, Port Authority of NY/NJ, FDNY, NYPD and Staten Island
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	Human Resources
Other	-	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Hudson County Planning and Engineering Departments
Engineers or professionals trained in building or infrastructure construction practices	Yes	Hudson County Planning and Engineering Departments
Planners or engineers with an understanding of natural hazards	Yes	Hudson County Planning and Engineering Departments
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Hudson County Planning Department – GIS Section; serves as the data warehouse for municipalities, excluding Jersey City.
Staff that work with socially vulnerable populations or underserved communities	Yes	Division of Social Services, Department of Welfare
Environmental scientists familiar with natural hazards	No	
Surveyors	No	-
Emergency manager	Yes	Hudson County Office of Emergency Management
Grant writers	Yes	Francesca Giarratana (Planning), Charlene Burke, Millennium Strategies, LLC (under contract)
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)		

2.3.4 Fiscal Capability

Table 2-5 summarizes financial resources available to Hudson County.

Table 2-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes - Only county-imposed user fee is for solid waste management
Impact fees for homebuyers or developers of new development/homes	Yes, County Planning Board fee schedule based on increase in impervious coverage and new parking spaces.
Stormwater utility fee	No
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, Shore Protection Fund from DEP, Office of Natural Resource damage funds, Local Aid grants, Environmental Infrastructure Trust fund, NJ EDA grants, NJ DCA grants
Open Space Acquisition funding programs	Open Space, Recreation and Historic Preservation Trust Fund – for partnerships between municipalities and nonprofit groups
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	-

2.3.5 Education and Outreach Capability

Table 2-6 summarizes the education and outreach resources available to Hudson County.

Table 2-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Public Information Officer
Personnel skilled or trained in website development	Yes	IT
Hazard mitigation information available on your website	Yes	Hudson County Office of Emergency Management
Social media for hazard mitigation education and outreach	Yes	Hudson County Office of Emergency Management - various social media outlets are utilized to share information
Citizen boards or commissions that address issues related to hazard mitigation	No	_
Warning systems for hazard events	Yes	Reverse 911, website, social media, etc.

Outreach Resources	Available? (Yes/No)	Comment
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	Division of Social Services, Department of Welfare
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Social Media, Reverse 911, website

2.3.6 Community Classifications

Table 2-7 summarizes classifications for community programs available to Hudson County.

Table 2-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Not applicable	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Not applicable	-	-
National Weather Service StormReady Certification	Not participating	-	-
Firewise Communities classification	Not participating	-	-
Sustainable Jersey	Not applicable	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	-	-	-

N/A = Not applicable

— = Unavailable

2.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 2-8 summarizes the adaptive capacity for each identified hazard of concern and the County’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 2-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Weak
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Moderate
Geological Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Weak

2.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 2-1 is responsible for maintaining this information.

2.4.1 NFIP Statistics

Table 2-9 summarizes the NFIP policy and claim statistics for Hudson County.

Table 2-9. Hudson County NFIP Summary of Policy and Claim Statistics

# Policies	**41,730**
# Claims (Losses)	**10,586**
Total Loss Payments	**$368,462,871**
# Repetitive Loss Properties (NFIP definition)	**612**
# Repetitive Loss Properties (FMA definition)	**2**
# Severe Repetitive Loss Properties (NFIP definition)	**56**
# Severe Repetitive Loss Properties (FMA definition)	**56**

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2024

2.4.2 Flood Vulnerability Summary

Table 2-10 provides a summary of the NFIP program in Hudson County.

Table 2-10. NFIP Summary

NFIP Topic	Comments
Floodplain administration is conducted at the municipal level. Refer to the municipal annexes.	

2.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 2-11 through Table 2-13.

Table 2-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Construction permits are issued at the municipal level. Refer to the municipal annexes.				

SFHA = Special Flood Hazard Area (1% flood event)

Table 2-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

** Only location-specific hazard zones or vulnerabilities identified.*

Table 2-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

2.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Hudson County's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

2.6.1 Hazard Area

Hazard area maps are shown in the hazard profiles in Volume 1. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Hudson County has significant exposure. The maps show the

2.6.2 Hazard Event History

The history of natural and non-natural hazard events in Hudson County is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 2-14 provides details on loss and damage in Hudson County during hazard events since the last hazard mitigation plan update.

Table 2-14. Hazard Event History in Hudson County

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hudson County
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour.	Damages from these strong, damaging winds totaled over $50,000 across the County.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	No recorded damages in County assets.
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour.	Damages from these strong, damaging winds totaled over $50,000 across the County.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour.	Damages from these strong, damaging winds totaled over $50,000 across the County.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	Damages from flooding in several municipalities and County assets: damage totaled over $50,000 across the County.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hudson County
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	Damages from flooding in several municipalities and County assets: damage totaled over $50,000 across the County.
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	Damages were reported at municipal level and impacted some County assets; damages were less than $50,000 across the County.

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

2.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Hudson County.

2.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. Hudson County reviewed the County's hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, Hudson County indicated the following:

- Dam/Levee Failure was ranked Medium in the last plan, Hudson County has ranked this low due to all municipalities ranking this low.
- Extreme temperatures were ranked Medium, Hudson County is ranking this low since conditions have not been observed to warrant a medium ranking.

Table 2-15 shows Hudson County's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 2-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Low
Drought	Medium
Extreme Temperatures	Low
Flood	High
Geological Hazards	Medium
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

2.6.3.2 Critical Facilities

Table 2-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 2-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
Harold E. ""Buddy"" Demellier Jr. Operations Center	County Building	Y	Y
Hudson County Plaza	County Building	-	Y
Hudson County Public Safety Building	County Building	Y	Y
Hudson County Roads Department	County Building	Y	Y
Hudson County USS Juneau Memorial Building	County Building	Y	Y

Source: Hudson County; HIFLD; NJGIN

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Hudson County:

- Hackensack Res. #2 (Weehawken) Dam in the Township of Weehawken

2.6.4 Identified Issues

After review of Hudson County's hazard event history, hazard rankings, hazard location, and current capabilities, Hudson County identified the following vulnerabilities within the community:

- Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:
  - Determine where the damage occurred within the community and if the damaged structures are in an SFHA.
  - Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.
  - Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.
  - Require permits for floodplain development.

  The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- The County Garage/DPW (24/7 operation) are located in the floodplain and vulnerable to flood impacts.
- Lack of continuous electrical power at critical facilities and lifelines.
- There are three bridges that cross the Passaic River that are owned with Essex County: 1. Clay Street; 2. Jackson Street, 3. Harrison Ave. These bridges serve as evacuation routes and increased capacity is needed in addition to addressing issues with erosion/pilings.
- Erosion and flooding have impacted Laurel Hill County Park.
- The coastal storm and flood evacuation study is not complete and does not include north-south evacuation to Bergen County.
- There is no complete spatial inventory of sewer systems; State has combined sewer overflow locations, but County needs a complete inventory.
- Slope failures along Boulevard East and Manhattan Ave along the Palisades. Slope failures could impact roads along and below the Palisades.
- There is no interactive system to control traffic lights along major roads during evacuation or other emergency situations.
- Insufficient drainage capacity on County Road from Tonnele Ave and County Ave causes roadway flooding.
- There are no generators or battery backups maintained on traffic signals.
- There is no prioritized inventory to address equipment needs and increased drainage needs.
- There are many Hudson County residents that do not own and car and may need to evacuate.

2.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

2.7.1 Past Mitigation Action Status

Table 2-17 indicates progress on the County's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

2.7.2 Additional Mitigation Efforts

In addition to the completed mitigation actions from the previous HMP, Hudson identified the following mitigation efforts completed since the last HMP:

- Messages can now be recorded remotely for the AM radio station, so that emergency messaging can be created and broadcast even when access to the studio by staff is not possible.

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

- New food pantries – The county is in the process of opening two food distribution sites, on in Kearny (Schuyler Ave) and one in Bayonne (Broadway).

Table 2-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HUDSON COUNTY-001	Increase shelter capacity	All hazards	Hudson County OEM	Problem: There is insufficient sheltering capacity in Hudson County. Solution: Expand medical sheltering capacity at the Hudson County VOTECH on Montgomery Street; Purchase additional equipment and PODs to send to shelters with 5 days of supplies to each shelter	1. Complete 2. Hudson County OEM has completed this action.	1. Discontinue 2. 3.
2020-HUDSON COUNTY-002	Relocate the County Garage/DPW and Prosecutor's Office buildings.	Flood	Hudson County Roads and Public Property	Problem: The County Garage/DPW and Prosecutor's Office (24/7 operation) are located in the floodplain and vulnerable to flood impacts. Solution: Relocate the County Garage/DPW and Prosecutor's Office located at the end of Duncan Ave, Jersey City, out of the floodplain. New property needs to be identified for this relocation.	1. No progress 2. In planning phase. Architect designing whole facility in same footprint, elevated to meet standards. No final design yet	1. Include 2. The Prosecutor's office previously located on the site has been relocated 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HUDSON COUNTY-003	Enhance CRS participation	Flood, Coastal Storm	Hudson County Division of Planning	Problem: High flood and storm surge vulnerability in the County Solution: Expand and enhance the County and municipal CRS participation. The following actions have been identified to support this strategy: 1.Hold informative CRS workshops to increase municipal participation in the County 2.Build upon the CRS Action Plan developed to support and enhance participation 3.Start a County CRS Users Group; attend other NJ County User Group meetings to assist with this 4.Expand ArcGIS Online services to include high water marks and storm surge inundation	1. No progress 2. No staff support for this program.	1.Discontinue 2.N/A 3. This action has no staff to support.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HUDSON COUNTY-004	Installation of Generators at Critical Facilities	All hazards	Hudson County OEM	Problem: No backup power at 12 community shelters identified as lifelines. Solution: Apply for FEMA HMA grant funding; purchase and install generators at the following critical facilities: 1.Shelters, six identified to date still need generators installed 2.Bruins Stadium - triage for county-wide coordination and helicopter access.	1. In Progress 2. Hudson County OEM is still working towards this mitigation action; with some generators already in progress but action has been delayed in conceptual design/procurement.	1. Include 2.No Change 3. N/A
2020-HUDSON COUNTY-005	Microgrids	All hazards	Hudson County Department of Roads and Private Property; Town of Secaucus; BPU	Problem: Lack of continuous electrical power at critical facilities and lifelines Solution: Establish a Public Private Partnership with BPU and coordinate with the Town of Secaucus to set up a microgrid to ensure continuity of operations at the following critical facilities and lifelines: 1.Meadowview Campus (Hudson County Prosecutors Office; Police and Fire Training Facility; Psychiatric Hospital 2.Nursing Home 3.Senior Residents Housing 4.Town of Secaucus Municipal Hall 5.Library 6.Fire Station	1.In progress 2. Meadowview campus, Town Hall	1. Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HUDSON COUNTY-006	Reduce flooding on South Hackensack Road, Kearny	Flood, Coastal Storm	Hudson County OEM; Kearny Point (private developer); Town of Kearny	Problem: Critical facility and lifeline USS Juneau Building which serves as the County Emergency Operations Center (South Hackensack Road in Kearny) is located in the floodplain and vulnerable to storm surge (e.g., impacted by storm surge during Hurricane Sandy). Solution: Hudson County to coordinate with the Town of Kearny and the private developer (Kearny Point). The current proposed solution is a public private partnership, obtain a US EDA grant, elevate the road and increase drainage capacity/address drainage along South Hackensack Road. To date, a $3 Million grant has been awarded by US EDA.	1.Complete 2. Road improvements are complete	1.Discontinue 2.N/A 3. This action is complete

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HUDSON COUNTY-007	Replace bridges that cross the Passaic River	All hazards	Hudson County Roads and Public property; Essex County Engineering	Problem: There are three bridges that cross the Passaic River that are owned with Essex County: 1. Clay Street; 2. Jackson Street, 3. Harrison Ave. These bridges serve as evacuation routes and increased capacity is needed in addition to addressing issues with erosion/pilings. Solution: Hudson County to work with Essex County to replace these bridges in coordination with the New Jersey Transportation Authority (NJTPA) and U.S. Federal Highway Administration (FHWA). Erosion control and upgrade of pilings is included. To date the local concept development has been completed; design phase is scheduled for the next 6-8 months. $30-80 Million to replace each bridge. Funded in part by FHWA.	1.In progress 2. Clay Street-Preliminary Engineering phase. The estimated cost for the new bridge is $108 million. Bridge Street- Preliminary Engineering, lead by Essex Co. the estimated cost for the new bridge is $154 million. Jackson street – future project. Local concept development (evaluating alternatives).	1.Include 2.Amount to replace bridges is now $108-154 million 3. N/A
2020-HUDSON COUNTY-008	Streambank restoration at Laurel Hill County Park	Coastal Erosion, Coastal Storm, Flood	Hudson County Parks; Hudson County Planning	Problem: Erosion and flooding have impacted Laurel Hill County Park Solution: Seek NJDEP Green Acres Funding and Hudson County Open Space Trust Fund funding to conduct a multi-phase project to stabilize the shorelines and restore the streambank at Laurel Hill County Park.	1.No progress 2. Looking at other funding opportunities, not just Green Acres and HC Open Space Trust Fund. Include NOAA grants.	1. Include 2. Expand to other county parks, including Stephen R. Gregg park, Lincoln Park. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HUDSON COUNTY-009	County Road Drainage Project	Coastal Storm, Flood	Hudson County Roads and Public Property	Problem: Insufficient drainage capacity on County Road from Tonnele Ave and County Ave causes roadway flooding Solution: Reconstruct County Road and increase drainage capacity, from Tonnele Ave and County Ave	1.In progress 2. Construction late summer/early fall	1.Include 2. Not change 3. N/A
2020-HUDSON COUNTY-010	Evacuation Zones	Coastal Storm, Flood	Hudson County Planning-GIS Division; FEMA; State	Problem: The coastal storm and flood evacuation study is not complete and does not include north-south evacuation to Bergen County. Solution: Finalize the Hudson County emergency evacuation route study in coordination with the State and FEMA. Include additional evacuation routes since this study focused on east/west travel and to Staten Island and need to consider evacuation north to Bergen County. Install updated evacuation signage once study finalized. This study identifies tiered evacuation zones relative to flood and storm surge.	1. In progress 2. Finalized, did not include additional routes. FEMA involvement is desirable. State Level plan has conflicting information on some routes including 440, JFK, Montgomery, Grand.	1. Include 2. Added signage on applicable county roads (needs to determine who is responsible on non-county roads). Look for funding opportunities. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HUDSON COUNTY-011	Geocode storm sewers	Coastal Storm, Flood	Hudson County Engineering; Hudson County Planning – GIS Division	Problem: There is no complete spatial inventory of sewer systems; State has combined sewer overflow locations, but County needs a complete inventory. Solution: Planning/GIS would geocode and may require some investigative field work to determine locations. Planning GIS and Engineering to support this project. Medium priority.	1.In progress 2. Updated inventory of visually accessible systems after	1. Include 2. Track locations submitted to the planning boards 3. N/A
2020-HUDSON COUNTY-011	Elevate Generators at Hudson County Correctional Center	All hazards	Hudson County Department of Corrections; Hudson County Roads and Public Property	Problem: There are four generators at the Hudson County Correctional Center; only one has been elevated. Solution: Elevate the three generators at the Hudson County Correctional Center (E-Pod and Modular Units)	1. In Progress 2. Project is still in conceptual development for Department of Corrections.	1. Include 2.Add Naval reserve (cooling/warming center), county owned but privately operated (separate row) 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HUDSON COUNTY-012	Mitigate slope failure	Geological	Hudson County Engineering Department	Problem: Slope failures along Boulevard East and Manhattan Ave along the Palisades. Slope failures could impact roads along and below the Palisades. Solution: Hudson County Engineering Department will work with NJTPA to address slope failure areas along Boulevard East along the Palisades. The County will evaluate the preliminary design and alternatives identify, select and implement project on Manhattan Avenue in Union City to address potential collapse.	1. In progress 2. Local Concept Development (LCD) put in for analysis of the palisades to determine & prioritize what type of improvements are needed. This will result in improvements projects. Primarily in Weehawken to North Bergen	1. Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HUDSON COUNTY-013	Interactive Traffic Signals	All hazards	Hudson County Engineering Department	Problem: There is no interactive system to control traffic lights along major roads during evacuation or other emergency situations Solution: Initiate a program for the county-wide coordination of traffic lights along major roads to facilitate evacuations and other emergency situations. There are some 300 signals in the County. The main traffic route of concern is Kennedy Boulevard. Install “adaptive signal systems” that automatically adjust, or can be remotely adjusted, to better facilitate traffic flow in emergency situations. Example could be the recent completion of interactive system along JFK Boulevard.	1. In progress 2. Categorial Exclusion Document CED review Traffic signal optimization on JFK Blvd from Armstrong Avenue to St. Paul’s Avenue County of Hudson’s NJTPA approval letter for traffic signal optimization on JFK Blvd from Armstrong Avenue to St. Paul’s Avenue Could do evacuation timing schedule	1. Include 2. No change 3. N/A
2020-HUDSON COUNTY-014	Backup power for traffic signals	All hazards	Hudson County Engineering	Problem: There are no generators or battery backups maintained on traffic signals. Solution: As the County retrofits signals, install portable generator back up power for signaling at critical county traffic roadway intersections.	1.No progress 2. New installation will include hook up for future generator install	1.Include 2.in new installations will add hook up for future generator install 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HUDSON COUNTY-015	Inventory Drainage Needs and Increase Capacity	Coastal Storm, Flood	Hudson County Roads and Public Property; HC Engineering	Problem: There is no prioritized inventory to address equipment needs and increased drainage needs. Solution: Develop a comprehensive study of all drainage facilities in the County. Evaluate condition and look at the long-term capital and maintenance plan to identify potential projects and prioritize next steps which may include; purchase of equipment (e.g., trucks, pumps), investigate areas for more pump stations, find out where to replace pipes and where repave so it can be done at the same time. Locations to consider: •Secaucus Road •County Road •Pump stations	1. In progress 2. County Road flood mitigation Blvd East in Guttenberg-Guttenberg RCP resilient communties (DCA) Grant to make improvements. Drainage improvements by Galaxy Towers. Jersey City-Newark Turnpike Improvements – reconstruct road and pump station. Partially funded through congressional & Freight application. Secaucus Road – Penhorn creek pump station 60% design. RCP grant.	1.Include 2.No change 3. N/A
2020-HUDSON COUNTY-016	Emergency Radios	All hazards	Hudson County MIS	Problem: Updated technology and increased number of radios are needed to support daily and emergency operations. Solution: Purchase and obtain a new radio system (Sheriff, Prosecutor's Office and OEM) to support both daily and emergency communication needs.	1.Complete 2. Project completed in 2024	1.Discontinue 2. N/A 3. This project was completed

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HUDSON COUNTY-017	Roc Harbor shoreline stabilization and infrastructure	Coastal Erosion, flood	Hudson County Engineering	Problem: Roc Harbor shoreline is in need of stabilization and installation of a new outfall. Solution: Stabilize shoreline and install a new outfall.	1.No Progress 2. This project has made no progress since 2006	1.Discontinue 2.N/A 3. This will be discontinued due to no progress since 2006
2020-HUDSON COUNTY-018	Mass Transit Evacuation Plan	All hazards	Hudson County OEM; coordination with transportation sector	Problem: There are many Hudson County residents that do not own and car and may need to evacuate. Solution: Develop a coordinated plan for the use of mass transit to evacuate all, or a significant portion, of the population of Hudson County. This plan would include consideration of: Methods of transportation (ferries, rail including light rail, buses; Assembly points; and Destinations (shelters and sheltering areas)	1.No progress 2. Hudson County OEM has had no progress on this project due to limited capacity and capability; the Department has this project in conceptual design determining scope of this proposed study.	1. Include 2. No change 3. N/A
2020-HUDSON COUNTY-019	Emergency Vehicle Auto-Lift	All hazards	Hudson County Department of Corrections	Problem: Emergency vehicles are subject to flood damage Solution: Emergency Vehicle Auto-Lift: Installation of auto-lift to prevent flood damage to emergency vehicles (identified in HCSRR.).	1. No Progress 2. The Department of Corrections has had no progress on this project due to limited capacity and capability; the Department has this project in conceptual design determining right funding sources for this project.	1.Include 2.No Change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HUDSON COUNTY-020	County Jail Flood Mitigation	Coastal Storm, Flood	Hudson County Department of Corrections	Problem: County Jail is susceptible to flooding and impacted by storm surge during Hurricane Sandy; houses vulnerable population. Solution: Identify potential mitigation project(s), and work to secure funding for selected project(s) to address the overall flood vulnerability of the County Jail and Juvenile Facility (South Kearny), which had storm surge flooding into the first flood level during Sandy (6-7' of storm surge in this area). This facility has the capability to house more than 2,000 inmates as their census regular fluctuates especially due to recent bail reform law, government contracts to house ICE detainees, and the release of certain prisoners due to the current health emergency.	1. No Progress 2. The Department of Corrections has had no progress on this project due to limited capacity and capability; the Department has this project in conceptual design determining right funding sources for this project.	1.Include 2.No Change 3. N/A

2.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Hudson County participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Hudson County would like to pursue in the future to reduce the effects of hazards. The actions 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.

Table 2-18 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 2-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 2-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X	X			X	X				X
Drought	X	X			X	X				X
Extreme Temperatures	X	X			X	X				X
Flood	X	X		X	X	X	X			X
Geological Hazards	X	X			X	X				X
Severe Weather	X	X		X	X	X	X			X
Severe Winter Weather	X	X			X	X				X
Wildfire	X	X			X	X				X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 2-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-Hudson County-001	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-Hudson County-002	Relocate the County Garage/DPW	1	1	1	1	1	0	0	0	0	1	1	1	1	1	**10**	Medium
2025-Hudson County-003	Microgrids	1	0	1	1	1	0	0	1	1	1	1	1	1	0	**10**	Medium
2025-Hudson County-004	Replace Bridges that Cross the Passaic River	1	1	1	1	1	1	0	1	1	1	1	1	1	0	**12**	High
2025-Hudson County-005	Streambank Restoration at Laurel Hill County Park	1	0	1	1	1	0	1	1	1	1	1	1	1	0	**11**	High
2025-Hudson County-006	Evacuation Zones	1	0	1	1	1	0	0	1	1	1	1	1	1	1	**11**	High
2025-Hudson County-007	Geocode Storm Sewers	1	0	1	1	1	1	1	1	1	1	1	1	1	1	**13**	High
2025-Hudson County-008	Mitigate Slope Failure	1	1	1	1	1	0	1	0	1	0	1	1	1	1	**11**	High
2025-Hudson County-009	Interactive Traffic Signals	1	0	1	1	1	1	0	1	1	1	1	1	1	0	**11**	High
2025-Hudson County-010	County Road Drainage Project	1	1	1	1	1	0	0	1	1	1	1	1	1	0	**11**	High
2025-Hudson County-011	Backup Power for Traffic Signals	1	0	1	1	1	1	0	1	1	1	1	1	1	0	**11**	High
2025-Hudson County-012	Inventory Drainage Needs and Increase Capacity	1	1	1	1	1	0	0	0	1	1	1	1	0	1	**10**	Medium
2025-Hudson County-013	Mass Transit Evacuation Plan	1	0	1	1	1	1	0	1	1	1	1	1	1	1	**12**	High

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-Hudson County-014	Emergency Vehicle Auto-Lift	0	1	1	1	1	0	0	0	1	1	1	1	1	1	**10**	Medium
2025-Hudson County-015	County Jail Flood Mitigation	1	1	1	1	1	0	0	1	1	1	1	1	1	1	**12**	High

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

Action 2025-Hudson County- 001. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	County OEM
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
Description of the Solution:	The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 *Developing a Substantial Damage Management Plan* (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	3, 6
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
Impact on Capabilities:	This action improves disaster recovery capabilities.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
Mitigation Category	Local Plans and Regulations

CRS Category	Emergency Services, Preventative Measure	
Priority	High	
Alternatives	**Action**	**Action**
	No Action	No Action
	Rely on state or federal resources following disaster events	Rely on state or federal resources following disaster events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	Establish MOUs with outside agencies to conduct Substantial Damage Determinations

Action 2025-Hudson County-002. Relocate the County Garage/DPW

Lead Agency:	County Roads and Public Property	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The County Garage/DPW (24/7 operation) are located in the floodplain and vulnerable to flood impacts.	
Description of the Solution:	Relocate the County Garage/DPW located at the end of Duncan Ave, Jersey City, out of the floodplain. New property needs to be identified for this relocation. Currently, this project is in the planning phase. Architect designing whole facility in same footprint, elevated to meet standards. No final design yet.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA HMA	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6	
Benefits:	Ensures continuity of operations of County Garage/DPW.	
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders and emergency managers to maintain critical services that socially vulnerable populations rely on.	
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.	
Impact on Critical Facilities/Lifelines:	This action will protect the County Garage/DPW which is a critical facility, maintaining the critical services that it provides.	
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.	
Climate Change Considerations:	This action addresses anticipated increases in flooding frequency and severity through protection to the 500-year (0.2-percent annual chance) flood level.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Construct a secondary satellite facility outside the floodplain	Cost inefficiency, logistical complexity
	Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.

Action 2025-Hudson County-003. Microgrids

Lead Agency:	County Department of Roads and Private Property
Supporting Agencies:	Town of Secaucus; BCU
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Lack of continuous electrical power at critical facilities and lifelines.
Description of the Solution:	Establish a Public Private Partnership with BPU and coordinate with the Town of Secaucus to set up a microgrid to ensure continuity of operations at the following critical facilities and lifelines: 1. Meadowview Campus (Hudson County Prosecutors Office; Police and Fire Training Facility; Psychiatric Hospital 2. Nursing Home 3. Senior Residents Housing 4. Town of Secaucus Municipal Hall 5. Library 6. Fire Station
Estimated Cost:	High
Potential Funding Sources:	BPU – Greener by Design Grants
Implementation Timeline:	1-5 years
Goals Met:	1,2,6
Benefits:	Ensures uninterrupted power supply to critical facilities during grid outages.
Impact on Socially Vulnerable Populations:	Ensures continuous care for residents in the nursing home, psychiatric hospital, and senior housing, who are especially vulnerable during power outages.
Impact on Future Development:	Reliable infrastructure can attract new businesses and residential developments.
Impact on Critical Facilities/Lifelines:	Ensures uninterrupted care at critical facilities.
Impact on Capabilities:	Builds local capacity in managing distributed energy resources and microgrid operations.
Climate Change Considerations:	Microgrids provide resilience against climate-induced extreme weather events (e.g., hurricanes, heatwaves).
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	Medium

Alternatives	**Action**	**Evaluation**
	No Action	-
	Back up generators at each facility	Requires regular maintenance
	Use mobile power units	Deployment delays, limited capacity

Action 2025-Hudson County-004. Replace Bridges that Cross the Passaic River

Lead Agency:	County Roads and Public Property	
Supporting Agencies:	Essex County Engineering	
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	There are three bridges that cross the Passaic River that are owned with Essex County: 1. Clay Street; 2. Jackson Street, 3. Harrison Ave. These bridges serve as evacuation routes and increased capacity is needed in addition to addressing issues with erosion/pilings.	
Description of the Solution:	Hudson County to work with Essex County to replace these bridges in coordination with the New Jersey Transportation Authority (NJTPA) and U.S. Federal Highway Administration (FHWA). Erosion control and upgrade of pilings is included. To date the local concept development has been completed; design phase is scheduled for the next 6-8 months. $108 to 154 million to replace each bridge. Funded in part by FHWA.	
Estimated Cost:	High	
Potential Funding Sources:	FHWA; County Budget	
Implementation Timeline:	High	
Goals Met:	1,2,6	
Benefits:	Replacing the bridges enhances their structural integrity and increases capacity, ensuring reliable evacuation routes during emergencies.	
Impact on Socially Vulnerable Populations:	Maintains connectivity for communities that may otherwise be cut off during flooding or bridge closures.	
Impact on Future Development:	Improved infrastructure can lead to higher property values and increased tax revenue.	
Impact on Critical Facilities/Lifelines:	Ensures uninterrupted access for emergency responders, utility crews, and supply chains.	
Impact on Capabilities:	Builds local capacity in managing large-scale infrastructure projects and intergovernmental coordination.	
Climate Change Considerations:	New bridge designs can incorporate higher elevation and improved drainage to withstand future flood levels.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Construct New Bridges Adjacent to Existing Ones and Decommission Old Structures Later	Limited space, high cost and complexity
	Rely on Alternative Evacuation Routes	Other routes may not have the capacity to handle the volume of traffic during emergencies

Action 2025-Hudson County-005. Streambank Restoration at Laurel Hill County Park

Lead Agency:	County Parks	
Supporting Agencies:	County Planning	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	Erosion and flooding have impacted Laurel Hill County Park.	
Description of the Solution:	NJDEP Green Acres Funding and Hudson County Open Space Trust Fund funding to conduct a multi-phase project to stabilize the shorelines and restore the streambank at Laurel Hill County Park, Stephen R. Gregg Park, and Lincoln Park.	
Estimated Cost:	Medium	
Potential Funding Sources:	NJDEP Green Acres; Hudson County Open Space Trust Fund	
Implementation Timeline:	1-5 years	
Goals Met:	4	
Benefits:	Restored streambanks improve water absorption and reduce flood risk.	
Impact on Socially Vulnerable Populations:	Enhances the ability of vulnerable populations to withstand and recover from environmental stressors.	
Impact on Future Development:	Stabilized and restored areas are more suitable for long-term recreational and community use.	
Impact on Critical Facilities/Lifelines:	Improved natural drainage reduces strain on municipal stormwater systems.	
Impact on Capabilities:	Offers opportunities for community involvement in planning and stewardship.	
Climate Change Considerations:	Restored ecosystems are more resilient to extreme weather, sea level rise, and increased rainfall.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Install hard infrastructure	Short-term fix, disrupt natural habitats
	Relying solely on routine maintenance and minor repairs	Lack of resilience, funding limitations

Action 2025-Hudson County-006. Evacuation Zones

Lead Agency:	County Planning – GIS Division	
Supporting Agencies:	FEMA, State	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The coastal storm and flood evacuation study is not complete and does not include north-south evacuation to Bergen County.	
Description of the Solution:	Finalize the Hudson County emergency evacuation route study in coordination with the State and FEMA. Include additional evacuation routes since this study focused on east/west travel and to Staten Island and need to consider evacuation north to Bergen County. Install updated evacuation signage once study finalized. This study identifies tiered evacuation zones relative to flood and storm surge.	
Estimated Cost:	Medium	
Potential Funding Sources:	County Budget, FEMA EMGP	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,	
Benefits:	Evaluating evacuation routes with surrounding jurisdictions ensures continuity during implementation. Furthermore, identifying routes which are not impacted, or have limited impact, to hazards, such as flood, prevent additional loss or damages.	
Impact on Socially Vulnerable Populations:	Having pre-determined evacuation routes can assist socially vulnerable populations in preparing themselves and those within their community to evacuate in a safe, timely fashion.	
Impact on Future Development:	Future development would need to be built with access to the identified evacuation routes.	
Impact on Critical Facilities/Lifelines:	Identifying evacuation routes can assist in smooth transportation operations across multiple jurisdictions.	
Impact on Capabilities:	This action will produce a planning capability for the County, making it more resilient.	
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. Sea level rise associated with climate change may cause bay and river water levels to increase. This action helps to plan for future hazard events.	
Mitigation Category	Education and Awareness Program	
CRS Category	Preventative Measures, Public Information, Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Do not consult surrounding municipalities	Evacuation routes may go against one another
	Do not publicize routes	Residents will not be aware of the evacuation routes

Action 2025-Hudson County-007. Geocode Storm Sewers

Lead Agency:	County Engineering	
Supporting Agencies:	County Planning – GIS Division	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	There is no complete spatial inventory of sewer systems; State has combined sewer overflow locations, but County needs a complete inventory.	
Description of the Solution:	Planning/GIS would geocode and may require some investigative field work to determine locations. Planning GIS and Engineering to support this project. Medium priority.	
Estimated Cost:	Low	
Potential Funding Sources:	County Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3,4,5,6,7	
Benefits:	Provides a comprehensive understanding of the sewer network, including unknown or undocumented segments.	
Impact on Socially Vulnerable Populations:	Reduces the risk of sewer overflows and backups in low-income or underserved neighborhoods, which often face disproportionate environmental burdens.	
Impact on Future Development:	Accurate sewer data is essential for evaluating development feasibility and ensuring infrastructure can support new growth.	
Impact on Critical Facilities/Lifelines:	Ensures that critical facilities (e.g., hospitals, fire stations) are supported by reliable sewer infrastructure.	
Impact on Capabilities:	Builds internal capacity in geospatial analysis and infrastructure mapping	
Climate Change Considerations:	Helps identify sewer segments vulnerable to flooding or sea level rise, enabling targeted adaptation.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Rely on existing state and municipal records	Outdated and may not reflect conditions or recent upgrades
	Wait for Statewide or Federal Mapping Initiatives	May not align with local priorities

Action 2025-Hudson County-008.Mitigate Slope Failure

Lead Agency:	County Engineering Department
Supporting Agencies:	-
Hazards of Concern:	Geological Hazards
Description of the Problem:	Slope failures along Boulevard East and Manhattan Ave along the Palisades. Slope failures could impact roads along and below the Palisades.
Description of the Solution:	Hudson County Engineering Department will work with NJTPA to address slope failure areas along Boulevard East along the Palisades. The County will evaluate the preliminary design and alternatives identify, select and implement project on Manhattan Avenue in Union City to address potential collapse.
Estimated Cost:	High
Potential Funding Sources:	NJTPA, County Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,4,6,7
Benefits:	Preserves the integrity of roads, utilities, and structures located along and below the Palisades.
Impact on Socially Vulnerable Populations:	Many vulnerable populations live in high-density housing near or below the Palisades; slope failure could disproportionately affect them.
Impact on Future Development:	Stabilized slopes reduce risk for developers and encourage investment in adjacent areas.
Impact on Critical Facilities/Lifelines:	These roads serve as key connectors between neighborhoods and essential services like hospitals, fire stations, and municipal buildings, reinforcing the continuity of operations across the County.
Impact on Capabilities:	Strengthens collaboration between Hudson County, NJTPA, and local municipalities.
Climate Change Considerations:	Climate change is expected to increase the frequency of heavy rain events, which can trigger slope failures.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Install temporary barriers or netting to catch debris	Short-term fix
	Restrict access or close affected road segments	Closures would cause major disruptions

Action 2025-Hudson County-009.Interactive Traffic Signals

Lead Agency:	County Engineering	
Supporting Agencies:	-	
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	There is no interactive system to control traffic lights along major roads during evacuation or other emergency situations.	
Description of the Solution:	Initiate a program for the county-wide coordination of traffic lights along major roads to facilitate evacuations and other emergency situations. There are some 300 signals in the County. The main traffic route of concern is Kennedy Boulevard. Install “adaptive signal systems” that automatically adjust, or can be remotely adjusted, to better facilitate traffic flow in emergency situations. Example could be the recent completion of interactive system along JFK Boulevard.	
Estimated Cost:	High	
Potential Funding Sources:	FHWA, CMAQ (Congestion Mitigation and Air Quality Program) funding	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3,5,6,7	
Benefits:	Real-time traffic adjustments improve daily traffic flow and reduce delays.	
Impact on Socially Vulnerable Populations:	Ensures that residents in high-density, transit-dependent, or underserved neighborhoods can evacuate safely and efficiently.	
Impact on Future Development:	Improved traffic management can accommodate increased population and development without overwhelming road networks.	
Impact on Critical Facilities/Lifelines:	Ensures that hospitals, fire stations, and emergency shelters remain accessible during disasters.	
Impact on Capabilities:	Encourages collaboration between transportation, emergency management, and public safety departments.	
Climate Change Considerations:	Adaptive systems can respond to climate-related events like flash floods or heatwaves by adjusting traffic flow in real time.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Manual traffic control by LE during emergencies	Personnel may not be available during widespread emergencies
	Pre-programmed signal timing plans for emergencies	Pre-set plans are not adaptable

Action 2025-Hudson County-010. County Road Drainage Project

Lead Agency:	County Roads and Public Property	
Supporting Agencies:	--	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	Insufficient drainage capacity on County Road from Tonnele Ave and County Ave causes roadway flooding.	
Description of the Solution:	Reconstruct County Road and increase drainage capacity, from Tonnele Ave and County Ave.	
Estimated Cost:	High	
Potential Funding Sources:	NJDOT Local Freight Impact Fund, HMGP, County Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6	
Benefits:	Risk of flooding will be reduced.	
Impact on Socially Vulnerable Populations:	Emergency vehicles will have the ability to assist residents during a flood event.	
Impact on Future Development:	Not applicable	
Impact on Critical Facilities/Lifelines:	Roadway will be less likely to incur damage from floodwaters and be able to remain open for travel.	
Impact on Capabilities:	Economic resiliency is increased by reducing the time needed for businesses to access facilities to reopen following a flood.	
Climate Change Considerations:	Consideration should be taken for more frequent flood events as a result of increases in rainfall frequency and severity.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Raise roadway without upgrading drainage	Changing elevation can create problems for adjacent properties on lower areas.
	Rely on green infrastructure	Effective from small to moderate rainfall.

Action 2025-Hudson County-011. Backup Power for Traffic Signals

Lead Agency:	County Engineer
Supporting Agencies:	-
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	There are no generators or battery backups maintained on traffic signals.
Description of the Solution:	As the County retrofits signals, install portable generator back up power for signaling at critical county traffic roadway intersections.
Estimated Cost:	Medium
Potential Funding Sources:	County Budget
Implementation Timeline:	Short
Goals Met:	1,2,6
Benefits:	Keeps traffic signals operational during power failures, reducing the risk of accidents and confusion at intersections.
Impact on Socially Vulnerable Populations:	Maintains safe and orderly traffic flow for residents who may not have access to private transportation or rely on paratransit.
Impact on Future Development:	Enhances the resilience of transportation infrastructure, making the area more attractive for residential and commercial development.
Impact on Critical Facilities/Lifelines:	Ensures that routes to hospitals, fire stations, and emergency shelters remain navigable during outages.
Impact on Capabilities:	Portable generators can be deployed where needed most, allowing for dynamic response to evolving threats.
Climate Change Considerations:	Ensures traffic control during climate-driven emergencies like hurricanes or flash floods.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Emergency Services
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Install permanent battery backup	High upfront cost, regular maintenance required
	Use LE or Traffic personnel to manually direct traffic	Labor intensive, exposure to hazardous conditions

Action 2025-Hudson County-012. Inventory Drainage Needs and Increase Capacity

Lead Agency:	County Roads and Public Property
Supporting Agencies:	County Engineering
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	There is no prioritized inventory to address equipment needs and increased drainage needs.
Description of the Solution:	Hudson County seeks to undertake a comprehensive assessment of all drainage infrastructure across the county to support long-term resilience and capital planning. This study will evaluate the current condition of drainage facilities, identify critical maintenance and upgrade needs, and develop a prioritized roadmap for future investments. The plan will also explore opportunities to coordinate drainage improvements with road reconstruction, optimize the placement of new pump stations, and assess the need for new equipment such as pumps and maintenance vehicles. The study will focus on key corridors and infrastructure assets, including: • Secaucus Road – including the Penhorn Creek Pump Station (currently at 60% design, supported by an RCP grant) • County Road – with ongoing flood mitigation efforts • Boulevard East in Guttenberg – supported by the DCA Resilient Communities Grant and drainage improvements near Galaxy Towers • Jersey City–Newark Turnpike – reconstruction of the roadway and pump station, partially funded through congressional and freight infrastructure grants
Estimated Cost:	High
Potential Funding Sources:	NJDOT, FEMA HMA, County Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2
Benefits:	Provides a data-driven foundation for prioritizing drainage upgrades and coordinating with road reconstruction projects.
Impact on Socially Vulnerable Populations:	Reduces exposure to flood-related hazards such as contaminated water, mold, and property damage, which disproportionately affect low-income residents.
Impact on Future Development:	Reliable drainage infrastructure is essential for sustainable residential and commercial development.
Impact on Critical Facilities/Lifelines:	Ensures that critical routes remain passable during and after storm events, supporting emergency response and supply chains.
Impact on Capabilities:	Establishes a GIS-based inventory and condition assessment that supports ongoing infrastructure management.
Climate Change Considerations:	Prepares the county for more frequent and intense rainfall events by identifying vulnerable drainage areas
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	Medium

Alternatives	Action	Evaluation
	No Action	-
	Relying Solely on Municipal-Level Drainage Data and Plans	Inconsistent data, limited scope
	Focus Only on High-Risk Areas Identified in Past Flood Events	New vulnerabilities may not be captured in past events

Action 2025-Hudson County-013. Mass Transit Evacuation Plan

Lead Agency:	County OEM
Supporting Agencies:	Transportation Section
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	There are many Hudson County residents that do not own and car and may need to evacuate.
Description of the Solution:	Develop a coordinated plan for the use of mass transit to evacuate all, or a significant portion, of the population of Hudson County. This plan would include consideration of: Methods of transportation (ferries, rail including light rail, buses; Assembly points; and Destinations (shelters and sheltering areas).
Estimated Cost:	Low
Potential Funding Sources:	County Budget
Implementation Timeline:	1-5 years
Goals Met:	1
Benefits:	This action ensures that all residents, especially those without cars, have a safe and reliable way to evacuate during emergencies.
Impact on Socially Vulnerable Populations:	Many residents in Hudson County, particularly in urban and low-income areas, do not own cars. A mass transit evacuation plan ensures they are not left behind during emergencies.
Impact on Future Development:	Reinforces the value of building near transit hubs, encouraging sustainable and resilient urban growth.
Impact on Critical Facilities/Lifelines:	Keeps essential workers and emergency personnel mobile during crises.
Impact on Capabilities:	Establishes clear protocols for mobilizing transit assets, managing assembly points, and directing evacuees.
Climate Change Considerations:	Highlights the need to harden transit systems against climate impacts.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Use Ad Hoc Transit Arrangements During Emergencies	Lack of preparedness and delayed response
	Encourage shelter-in-place	Not always the safest option

Action 2025-Hudson County-014. Emergency Vehicle Auto-Lift

Lead Agency:	County Department of Corrections	
Supporting Agencies:	-	
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Emergency vehicles are subject to flood damage	
Description of the Solution:	Emergency Vehicle Auto-Lift: Installation of auto-lift to prevent flood damage to emergency vehicles (identified in HCSRR.).	
Estimated Cost:	High	
Potential Funding Sources:	County Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2	
Benefits:	Protects emergency vehicles from flood damage.	
Impact on Socially Vulnerable Populations:	Improves emergency response capabilities in underserved or high-risk communities by ensuring vehicle availability during disasters.	
Impact on Future Development:	Encourages resilient infrastructure planning for future emergency service facilities.	
Impact on Critical Facilities/Lifelines:	Enhances the resilience of emergency services, a critical lifeline, by safeguarding essential response equipment.	
Impact on Capabilities:	Strengthens the County's emergency preparedness and response capabilities, particularly during flood events.	
Climate Change Considerations:	Addresses increased flood risk due to more frequent and intense storm events associated with climate change.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Preventative Measures, Property Protection, Emergency Services	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Move vehicles to higher ground	May not be feasible due to limited space or proximity to area

Action 2025-Hudson County-015. County Jail Flood Mitigation

Lead Agency:	County Department of Corrections	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	County Jail is susceptible to flooding and impacted by storm surge during Hurricane Sandy; houses vulnerable population.	
Description of the Solution:	Identify potential mitigation project(s), and work to secure funding for selected project(s) to address the overall flood vulnerability of the County Jail and Juvenile Facility (South Kearny), which had storm surge flooding into the first flood level during Sandy (6-7' of storm surge in this area). This facility has the capability to house more than 2,000 inmates as their census regular fluctuates especially due to recent bail reform law, government contracts to house ICE detainees, and the release of certain prisoners due to the current health emergency.	
Estimated Cost:	High	
Potential Funding Sources:	County Budget, FEMA HMGP	
Implementation Timeline:	1-5 years	
Goals Met:	1,2	
Benefits:	Protects the lives and safety of inmates and staff.	
Impact on Socially Vulnerable Populations:	Provides enhanced protection for incarcerated individuals, a highly vulnerable population with limited ability to self-evacuate or access emergency services.	
Impact on Future Development:	Encourages resilient design and planning for future correctional and public safety facilities in flood-prone areas.	
Impact on Critical Facilities/Lifelines:	Strengthens the resilience of a critical public safety facility, ensuring it remains operational during and after flood events.	
Impact on Capabilities:	Improves emergency preparedness and response capabilities by reducing the likelihood of facility shutdowns or evacuations due to flooding.	
Climate Change Considerations:	Addresses increased flood risk due to sea level rise and more frequent/intense storm events associated with climate change.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Preventative Measures, Property Protection, Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Temporary flood barriers	Limited protection; not reliable for major storm events
	Relocate Facility	Extremely high cost; logistical complexity

3. CITY OF BAYONNE

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the City of Bayonne with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Bayonne, describes who participated in the planning process, assesses Bayonne's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

3.1 Hazard Mitigation Planning Team

The City of Bayonne identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many City departments. The City Planner represented the community on the Hudson County HMP Planning Partnership and Steering Committee, and supported the local planning process 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, with the Division of Engineering Services and Municipal Services taking the lead in these efforts.

Table 3-1 summarizes City officials who participated in the development of the annex and in what capacity. Additional documentation of the City's planning activities through Planning Partnership meetings is included in Volume I.

Table 3-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Suzanne Mack, City Planner Address: 630 Avenue C, Bayonne, NJ 07002 Phone Number: 201-858-6138 Email: smack@baynj.org	Name/Title: JJoseph Anderson Address: 630 Avenue C, Bayonne, NJ 07002 Phone Number: 201-858-6900 Email: Joseph.anderson@bayonnepd.org
National Flood Insurance Program Floodplain Administrator	
Name/Title: Suzanne Mack, City Planner Address: 630 Avenue C, Bayonne, NJ 07002 Phone Number: 201-858-6138 Email: smack@baynj.org	
Additional Contributors	
Name/Title: John Armstrong, PE, Engineer Municipal Services Method of Participation: Participated in the planning process	
Name/Title: Andrew Raichle, PE, Special Projects Engineer, Watermen LLC Method of Participation: Participated in the planning process	
Name/Title: Madelene Medina, City Clerk Method of Participation: Participated in the planning process	
Name/Title: Robert J. Russo, CME, Consulting Municipal Engineer Method of Participation: Participated in the planning process	

Name/Title: Thomas Cotter, Director of Public Works Method of Participation: Participated in the planning process
Name/Title: Edoardo Ferrante, OEM Coordinator Method of Participation: Participated in the planning process
Name/Title: Joseph Benkert, Construction Official Method of Participation: Participated in the planning process
Name/Title: James M. Davis, Mayor Method of Participation: Participated in the planning process

3.2 Community Profile

3.2.1 Brief History

Bayonne was founded in the 1800s as basically a farming community. Due to its proximity to New York Harbor it evolved during the late 19th and early 20th century to a predominantly industrial community with a majority of its industry involving petro-chemicals. In the 1940s at the beginning of the Second World War the Navy established a supply depot on the eastern side of the City. This base played significant roles in all the subsequent military actions from World War II to Desert Storm in the early 1990s under both Navy and Army control. However, in 1995 the Federal Government decided to close the base and turn it over to the City. This industrial trend continued up to the 1950s when major oil companies began to leave the community for more modern facilities. The decline continued into the 1980s when the community became predominantly residential with light industry.

3.2.2 Location

The City of Bayonne is located at the southern tip of Hudson County's peninsula where Newark Bay, the Kill van Kull, and New York Bay meet. The City is bordered to the north by Jersey City. This area has very little elevation, and generally sits at sea level. The location of the City makes it prone to flooding.

3.2.3 Governing Body Format

The City of Bayonne is governed by a Mayor and Council. This governing body will be responsible for the adoption and implementation of this plan.

3.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for Bayonne was 71,686, a 12.9 percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 7.1 percent of the population is 5 years of age or younger, 13.9

percent is 65 years of age or older, 7.9 percent is non-English speaking, 9.6 percent is below the poverty threshold, and 11.7 percent is considered disabled.

3.2.4.1 ALICE IN HUDSON COUNTY

ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. While conditions have improved for some households, many continue to struggle, especially as wages fail to keep pace with the rising cost of household essentials (housing, child care, food, transportation, health care, and a basic smartphone plan). Households below the ALICE Threshold – ALICE households plus those in poverty – can't afford the essentials.

According to 2021 Point-in-Time-Data from ALICE, 24 percent of the 292,000 households in Hudson County are ALICE households (compared to the state average of 26 percent). The median household income in Hudson is $80,329, and the County sees a labor force participation rate of 69 percent. Hudson County faces low household income compared to the state average of $89,296 and while the County does carry a 3 percent higher labor participation rate compared to state numbers, 15 percent of Hudson households live in poverty.

3.3 Jurisdictional Capability Assessment and Integration

Bayonne performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

3.3.1 Planning and Regulatory Capability and Integration

Table 3-2 summarizes the planning and regulatory tools that are available to Bayonne.

Table 3-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	State Uniform Construction Code, Chapter 15-Building and Housing	State and Local	Division of Planning and Zoning, Bureau of Building
How has or will this be integrated with the HMP and how does this reduce risk? Building codes establish standards and regulations for construction and occupancy including structural integrity and fire safety. Adherence to building codes ensures that structures are designed and built to meet current safety standards, minimizing the risk of injury to life or property as a result of structural or systemic failure. State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14. Chapter 15 of Building and Housing. Adopted Uniform Construction Code.				
Zoning/Land Use Code	Yes	Chapter 33, Article IV – Zoning Permits Chapter 35 – Zoning Regulations	Local	Division of Planning and Zoning, Zoning Department
How has or will this be integrated with the HMP and how does this reduce risk? This chapter is adopted under the authority of the Municipal Land Use Law, and it is the purpose and intent of this chapter to effectuate the purposes of that Act as they apply to the City of Bayonne, including, but not limited to, the following: a. To exercise municipal action in a manner which will effectively guide the appropriate use or development of all lands in this City, so as to best promote the public health, safety, morals and general welfare. b. To preserve the City from avoidable fire, flood, panic and other natural and man-made disasters. c. To provide adequate light, air, and open space. d. To provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of all Bayonne citizens. e. To promote the conservation of historic sites and districts, open space, energy resources and natural resources; to prevent urban sprawl and degradation of environment through improper land uses; and to insure the establishment of appropriate population densities and concentrations. f. To locate, design and utilize transportation routes and systems in conjunction with land use that will best serve the City's development. g. To use creative development and design techniques to promote a desirable visual environment. h. To promote and encourage a broad range of housing choices and residential growth. i. To coordinate public development, private development and land use policies in order to encourage the efficient use of land and to reduce expenditures of public funds. j. To promote the utilization of renewable energy sources and the maximum recovery and recycling of materials from municipal solid waste.				
Subdivision Code	Yes	Chapter 33 – Planning and Development Regulations	Local	Division of Planning and Zoning, Zoning Department
How has or will this be integrated with the HMP and how does this reduce risk? Any owner of land within or partly within the City, prior to subdividing or re-subdividing such land, shall obtain approval of the preliminary and final plats of the proposed subdivision by the Planning Board or Zoning Board of Adjustment as provided by law before the subdivision may be recorded in the office of the County Recording Officer of Hudson County.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Site Plan Code	Yes	Chapter 33-Planning and Development Regulations	Local and County	Division of Planning and Zoning, Zoning Department
How has or will this be integrated with the HMP and how does this reduce risk? Prior to the issuance of a permit for the construction, reconstruction, conversion, structural alteration, relocation or enlargement of any building or other structure, the excavation or filling of soil, or for the use or change of use of an existing property, site plan review and approval shall be required.				
Stormwater Management Code	Yes	Chapter 30 – Stormwater Management	Local	Division of Planning and Zoning Division of Municipal Services
How has or will this be integrated with the HMP and how does this reduce risk? Flood control, groundwater recharge, and pollutant reduction shall be achieved through the use of stormwater management measures, including green infrastructure best management practices (GI BMPs) and nonstructural stormwater management strategies. GI BMPs and low-impact development (LID) should be utilized to meet the goal of maintaining natural hydrology to reduce stormwater runoff volume, reduce erosion, encourage infiltration and groundwater recharge, and reduce pollution. GI BMPs and LID should be developed based upon physical site conditions and the origin, nature and the anticipated quantity, or amount, of potential pollutants. Multiple stormwater management BMPs may be necessary to achieve the established performance standards for water quality, quantity, and groundwater recharge.				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk? 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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Growth Management	Yes	Chapter 33-Planning and Development Regulations	Local	Division of Planning and Zoning
How has or will this be integrated with the HMP and how does this reduce risk? Provides rules, regulations and standards to guide land subdivision, site plan and development in the City in order to promote the public health, safety, convenience and general welfare of the City. It shall be administered to insure the orderly growth and development, the conservation, protection and proper use of land and adequate provision for circulation, utilities, and services.				
Environmental Protection Ordinance(s)	Yes	Title 7 of NJ Municipal Administrative Code Chapter 30 – Stormwater Control Chapter 33 – Planning and Development Regulation	Local	Division of Planning and Zoning Division of Engineering Services
How has or will this be integrated with the HMP and how does this reduce risk? Protects of the air, waters, land, and natural and historic resources of the State to ensure continued public benefit and is advanced through effective and balanced implementation and enforcement of environmental laws to protect these resources and the health and safety of New Jersey's residents.				
Flood Damage Prevention Ordinance	Yes	Chapter 29 – Flood Hazard Prevention	Federal, State, County and Local	Division of Planning and Zoning Division of Engineering Services and Municipal Services
How has or will this be integrated with the HMP and how does this reduce risk? In order to accomplish its purposes, this chapter includes methods and provisions for: a. Restricting or prohibiting uses which are dangerous to health, safety and property due to water erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; b. Requiring that uses vulnerable to floods including facilities which serve such uses, be protected against flood damage at the time of initial construction; c. Controlling the alteration of natural flood plains, stream channels and natural protective barriers, which help accommodate or channel floodwaters; d. Controlling filling, grading, dredging and other development which may increase flood damage; and e. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas. The ordinance is not the model code coordinated ordinance and will require update.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Emergency Management Ordinance	Yes	Chapter 2 – Boards, Committees, Commissions, Authorities and Agencies	Local	Bayonne OEM
How has or will this be integrated with the HMP and how does this reduce risk? Because of the existing and increasing possibility of the occurrence of disasters and emergencies of unprecedented size and destructiveness resulting from enemy attack, sabotage or other hostile action, or from fire, flood, earthquake or other natural causes, and in order to insure the preparations of this City will be adequate to deal with such disasters, and generally to provide for the common defense and to protect the public peace, health and safety, and to preserve the lives and property of the people of this City it is hereby found and declared to be necessary: a. To create the Office of Emergency Management for the City. b. To create an Emergency Management Council. c. To provide for the rendering of mutual aid to other cities and municipalities within the State of New Jersey.				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	City of Bayonne Reexamination Report of the Master Plan, 2017	Local	Division of Planning and Zoning
How has or will this be integrated with the HMP and how does this reduce risk? The reexamination report shall state: a. The major problems and objectives relating to land development in the municipality at the time of the adoption of the last reexamination report. b. The extent to which such problems and objectives have been reduced or have increased subsequent to such date. c. The extent to which there have been significant changes in the assumptions, policies, and objectives forming the basis for the master plan or development regulations as last revised, with particular regard to the density and distribution of population and d. land uses, housing conditions, circulation, conservation of natural resources, energy conservation, collection, disposition, and recycling of designated recyclable materials, and changes in State, county and municipal policies and objectives. e. The specific changes recommended for the master plan or development regulations, if any, including underlying objectives, policies and standards, or whether a new plan or regulations should be prepared.				
Capital Improvement Plan	Yes	Municipal Budget	Local	Department of Public Works and Parks Department of Municipal Services Department of Administration
How has or will this be integrated with the HMP and how does this reduce risk? Per NJSA 40:55D-29 the governing body is authorized to direct the planning board to prepare a CIP with at least a six-year planning horizon. Capital Improvements are identified within the municipal budget.				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Stormwater Management Plan	Yes	City of Bayonne Municipal Stormwater Management Plan (MSWMP)	Local	Division of Planning and Zoning Department of Municipal Services and Division of Engineering Services
City of Bayonne Reexamination Report of the Master Plan, 2017 This MSWMP documents the initial strategy for the City of Bayonne (City) to address stormwater management primarily in new development and redevelopment projects that involve greater than 1 acre of disturbance.				
Open Space Plan	Yes	City of Bayonne Reexamination Report of the Master Plan, 2017	Local	Bayonne Division of Public Works
How has or will this be integrated with the HMP and how does this reduce risk? The City of Bayonne Master Plan includes elements that directly address the effective use of open space within the city that will allow for the most efficient land use benefitting the community at-large.				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	Yes	Bayonne Economic Development Plan	Federal, Local	Bayonne Economic Opportunity Foundation
How has or will this be integrated with the HMP and how does this reduce risk? Bayonne is included in the Urban Enterprise Zone. The Economic Development Plan is administered by the Bayonne Economic Development Corporation.				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	Yes	City of Bayonne Reexamination Report of the Master Plan, 2017	Local	Bayonne City Planner
How has or will this be integrated with the HMP and how does this reduce risk? The City of Bayonne Master Plan includes elements that directly address the development of transportation routes within the city that will allow for the most beneficial use of land and property to improve the health and well-being of the community at-large.				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	Yes	Resilient NJ – Northeastern New Jersey, 2022 New Jersey Statewide Climate Change Resilience Strategy	County and State	NJDEP Zoning Board of Adjustment
How has or will this be integrated with the HMP and how does this reduce risk? Resilient Northeastern NJ (Resilient NENJ) seeks to build climate resilience while improving quality of life for the 700,000 people who live in Jersey City, Newark, Hoboken, and Bayonne, as well as those who work and play in the region.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Tourism Plan	Yes	City of Bayonne Municipal Public Access Plan, 2018	Local	Planning Board Environmental Commission
How has or will this be integrated with the HMP and how does this reduce risk? The voluntary development of a MPAP by the City of Bayonne enables the municipality to better plan, implement, maintain, and improve the provision of public access for its residents and visitors. The MPAP has been incorporated into the City's Master Plan, in accordance with the Municipal Land Use Law (N.J.S.A 40:55D). The MPAP, as an official component of the municipal Master Plan, informs and/or identifies public access requirements associated with any proposed development or redevelopment project.				
Business/ Downtown Development Plan	Yes	City of Bayonne Reexamination Report of the Master Plan, 2017	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The City of Bayonne Master Plan includes elements that addresses how best to develop the downtown and business districts within the city in a way that most benefits the community without increasing risk to life or property.				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	City of Bayonne Emergency Management Plan	Local	Bayonne Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years.				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	Yes	Post-Disaster Recovery Plan	Local	Bayonne Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? Guides community rebuilding and redevelopment following a disaster. Provides a framework for orderly recovery and return to normalcy within the City.				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

3.3.2 Development and Permitting Capability

Table 3-3 summarizes the capabilities of Bayonne to oversee and track development.

Table 3-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	Yes	Planning and Zoning
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Focused on flood hazard areas.
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	Yes	Through locations identified as available for redevelopment, vacant lots, etc.
Describe the level of buildout in your jurisdiction.	N/A	The City is fully built out

3.3.3 Administrative and Technical Capability

Table 3-4 summarizes potential staff and personnel resources available to Bayonne and their current responsibilities that contribute to hazard mitigation.

Table 3-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	The Planning Board, made up of nine members, is guided by the powers and duties assigned to it by the municipal Land Use Law. The Board is responsible for: a. Making and adopting the Master Plan b. Administering the Land Subdivision Ordinance c. Reviewing site plans d. Approving conditional use applications e. Preparing a municipal capital budget
Zoning Board of Adjustment	Yes	The Zoning Board of Adjustment is comprised of seven members and reviews all applications for construction or signage which do not meet the requirements of the zoning ordinance, limiting schedule or Bayonne Master Plan. Further responsibilities of the Board include: • Hearing and deciding appeals in the enforcement of the Zoning Code • Hearing and deciding requests in interpretation of the Zoning Code • Ruling on applications for variances • Granting variances to allow departure from land use regulations
Planning Department	Yes	Department of Planning, Zoning, and Development
Mitigation Planning Committee	No	
Environmental Board/Commission	No	

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Open Space Board/Committee	No	
Economic Development Commission/Committee	Yes	Through public and private funding, Bayonne Economic Opportunity Foundation (BEOF) provides resources to improve quality of life for low-income residents of Bayonne, N.J., and Hudson County. Even those who do not meet program income requirements receive guidance and referrals for assistance.
Public Works/Highway Department	Yes	The Bayonne Department of Public Works and Parks houses the following divisions: • Division of Engineering Services • Division of Fleet Management • Division of Forestry • Division of Maintenance • Division of Parks • Division of Recreation • Division of Recycling and Solid Waste Management • Division of Roads and Bridges • Division of Signal
Construction/Building/Code Enforcement Department	Yes	The Bureau of Building is housed within the department of Administration under the Business Administration
Emergency Management/Public Safety Department	Yes	The mission of Bayonne OEM is to prepare for and activate operations during the occurrence of disasters and emergencies of unprecedented size and destructiveness resulting from enemy attack, sabotage or other hostile action, or from fire, flood, earthquake or other natural causes.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Located in the Department of Public Works, the Maintenance Division is responsible for maintaining the City of Bayonne's infrastructure. The Division performs street litter control, street inspection, and maintenance of all municipal properties that will reduce the impact and the Department of Municipal Services handles hazard event should it occur.
Mutual aid agreements	Yes	Bayonne Fire Dept. with County, Police Dept. with County, Hudson County and City Parks, Port Authority with City, FDNY, Staten Island, NYPD
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	Human Resources
Other		
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	City Planning
Engineers or professionals trained in building or infrastructure construction practices	Yes	CME, Watermen, Municipal Services engineer, City Planning
Planners or engineers with an understanding of natural hazards	Yes	Suzanne Mack PP AICP CTP, City Planner
Staff with expertise or training in benefit/cost analysis	Yes	Business Administrator, CFO

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Professionals trained in conducting damage assessments	Yes	Contract Services
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Veiola, tax assessors
Staff that work with socially vulnerable populations or underserved communities	No	
Environmental scientists familiar with natural hazards	Yes	Andrew Raiche, PE Watermen works with NJDEP and FEMA
Surveyors	Yes	Watermen and CME
Emergency manager	Yes	OEM Coordinator
Grant writers	Yes	Under City Planner Millennium (contractor), CME, Watermen, primarily Watermen
Resilience Officer	Yes	CME, Watermen, City Planning
Other (this could include stormwater engineer, environmental specialist, etc.)	No	Contractual support for engineering and legal services: John Armstrong PE and Joseph Nichols Esq-

3.3.4 Fiscal Capability

Table 3-5 summarizes financial resources available to Bayonne.

Table 3-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
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, Shore Protection Fund from DEP, Office of Natural Resource Damage funds, DOT Freight Roadway grant, Environmental Infrastructure trust fund
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Yes, Green Acres, Hudson County Open Space, NJDOT, NJDEP

3.3.5 Education and Outreach Capability

Table 3-6 summarizes the education and outreach resources available to Bayonne.

Table 3-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Public Information Officer
Personnel skilled or trained in website development	Yes	IT division
Hazard mitigation information available on your website	Yes	Link to County site on City website and Resilience NJ
Social media for hazard mitigation education and outreach	Yes	Various social media outlets are utilized to share information
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Reverse 911, sirens, website, social media
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Reverse 911, sirens, website, social media, etc.

3.3.6 Community Classifications

Table 3-7 summarizes classifications for community programs available to Bayonne.

Table 3-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	2	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Sustainable Jersey	Yes	N/A	March 17, 2011
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

3.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 3-8 summarizes the adaptive capacity for each identified hazard of concern and the City'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 3-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Strong
Geological Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Weak

3.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 3-1 is responsible for maintaining this information.

3.4.1 NFIP Statistics

Table 3-9 summarizes the NFIP policy and claim statistics for Bayonne.

Table 3-9. Bayonne NFIP Summary of Policy and Claim Statistics

# Policies	**222**
# Claims (Losses)	**166**
Total Loss Payments	**$3,921,678.99**
# Repetitive Loss Properties (NFIP definition)	**16**
# Repetitive Loss Properties (FMA definition)	**0**
# Severe Repetitive Loss Properties (NFIP definition)	**0**
# Severe Repetitive Loss Properties (FMA Definition)	**0**

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2024

3.4.2 Flood Vulnerability Summary

Table 3-10 provides a summary of the NFIP program in Bayonne.

Table 3-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Municipal Services and Veiola maintain flood prone areas along three coasts
Do you maintain a list of properties that have been damaged by flooding?	Building Department maintain list
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	We get sporadic calls for this.
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	Municipal Services has contracted for an hydraulic model
How do you make Substantial Damage determinations?	No
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	No
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Use federal flood maps

NFIP Topic	Comments
NFIP Compliance	
What local department is responsible for floodplain management?	Municipal Services and Building
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes actively part of Resilience NJ and FEMA
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Yes currently obtaining certificate
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review by City and GIS from Veiola
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Cost
What are the barriers to running an effective NFIP program in the community, if any?	Don't want to participate due to cost
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	N/A
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 29 of the Municipal Code. Last amended 2006
What is the date that your flood damage prevention ordinance was last amended?	Chapter 29 of the Municipal Code. Last amended 2006
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets and exceeds minimum requirements. It exceeds by adopting the requirements of NJDEP's Flood Hazard Area Control Act in addition to requirements of the Uniform Construction Code (UCC).
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The planning board through redevelopment plans and site plan review prohibit underground parking in flood prone areas and adjusts height or consider additional height to get out of floodplain.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	Would like to be part of this program.

3.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 3-11 through Table 3-13.

Table 3-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2019				
Total Permits	0	21	7	28
Permits within SFHA	0	0	0	0
2020				
Total Permits	1	29	3	33
Permits within SFHA	0	0	0	0
2021				
Total Permits	1	11	6	18
Permits within SFHA	0	0	0	0
2022				
Total Permits	2	13	2	17
Permits within SFHA	0	0	0	0
2023				
Total Permits	0	11	4	15
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 3-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Bayonne Logistics Center Urban Renewal LLC	Commercial/Industrial	2 Warehouse Buildings	Block 1180.01, Lots 1 & 2	Formerly a FEMA AE & V Zone; however, site has been raised to remove the FEMA flood zone designations	Complete & Occupied
Fitness International	Commercial/Industrial	1 building	Block 721, Lot 2	A Zone, but elevated with fill out of the floodplain	Complete & Occupied
J J Builders	Residential 196 Ave E	40	Block 458 Lots 7.,8,9	No	Under construction
Lehigh Realty 130-134 E 22nd	Residential	197	Block 451 1.01 2.05	No	Built
130-134 Prospect Ram Dev llc	Residential	197	Block 450 Lots 1, 10.1 10.2 22 23 23	No	Built
425 Avenue C	Residential	19	Block 230 Lot 22.01	No	Built

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Gamal Group Corp LLC	Residential 35A Ave A	299 5,143 commerical	Block 361 Lot 12 Block 362 Lot 3	Former AE & Coastal A Zones (FEMA maps have been modified to remove designation)	Seeking permits not constructed in 2025-2026
175 W 7th Development Urban Renewal LLC	Residential The Ponte	56 units	Block 304 Lot 1	yes	Built
Bayonne Redevelopers Residential UR Block 780	Residential	651 units	Block 722, Lot 1 & Block 790, Lot 1.01	A Zone	Complete & Occupied
275 Chosin Few Way Urban Renewal LLC	Commercial/Industrial	625 units	Block 600, Lots 1.01, 2 & 3	None	Complete & Occupied
St. Joseph's Property	Residential	164 units	Block 198 Lots 1 and 2	None	Complete and occupied
AMS Equities (Silklofts)	Residential	286	Block 458 Lots 1.02 1.03 Block 465 Lot 23 Block 234 Lot 8.01 130 140 154 157-163 Ave E	None	Complete and occupied
Pier View Loft Art Kheyman	Residential 676-688 Ave E-	65	Block 402 Lots 4,5,7	No	Complete and occupied
JSF Management, LLC	Non-residential	176,000 sq ft	Shopping center Rt 440 Goldsborough Dr	Above flood zone	Complete
Sixth Wave Logistics LLC	Commerical 69-71 New Hook Rdl	157,150 sf Self storage wharehouse 68,300flex space	Block 416	No	Completed
MYK Builders	Residential	-	-	-	-
Parkview Realty Holding, 172 Avenue F	Residential	180	Block 445 Lot 6	No	Completed
Bayonne Equities Urban Renewal	Residential	116	Block 264 Lots 15 16 17 18 9-11 W 12th 281-289 Broadway	No	Under construction
Mahalaxmi Bayonne LLC	Residential	97	Block 751, Lot 1.04	A Zone	Site elevated above the floodplain
Adam Enterprise, LLC	Residential	42	Block 24 Lots 2 ,3	No	Under construction
Alessi/South Cove	Non-Residential 191 Le fante Way	3,500 st ft	Block 412 Lots 2.01 2.03	No	Complete

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
755 Avenue E	Residential	-	755 Avenue E, Block/Lot 72	No	Approved not started
300 Stanley Ave, Bldg 23	Residential	-	300 Stanley Ave, Bldg 23, Block/Lot 820	Elevated out of zone	See above
310 Stanley Ave, Bldg 24	Residential	-	310 Stanley Ave, Bldg 24, Block/Lot 820	Elevated out of zone	See above
320 Stanley Ave, Bldg 25	Residential	-	320 Stanley Ave, Bldg 25, Block/Lot 820	Elevated out of zone	See above
196-198 Avenue E J and J Builders	Residential	41	196-198 Avenue E, Block/Lot 458	Elevated out of zone	In construction
130-134 Avenue F	Residential	190	130-134 Avenue F, Block/Lot 450	-	In construction
Da Noi Residence Ur Renewal LLC St Blocks 26-3-Approved	Residential	47	66-68 W 54th	No	Approved
90-102 Avenue E	Residential	70	90-102 Avenue E, Block/Lot 467	No	Under construction
Harbor Station South/100 CH	-	-	Harbor Station South/100 CH, Block/Lot 751	A Zone Site raised out of floodplain	
197 Avenue E Urban renewal	Residential	250	Block 221/Lot 12.01	No	Under construction
54 Flagship	Residential	159 units	54 Flagship, Block/Lot 751	A Zone – Site raised out of the floodplain	Near completion and occupation (Fall 2025)
103-143 E 22nd St Lehigh Realty	Residential	550	103-143 E 22nd St, Block/Lot 451	Yes	Completed
952 Broadway	Residential/Commerical	-	952 Broadway, Block/Lot 82	No	Complete
225 Chosin Few Way	See “275 Chosin Few Way” above	-	225 Chosin Few Way, Block/Lot 600	A Zone Site raised ot of floodplainw	See above
343-347 Avenue A	Residential	31	343-347 Avenue A, Block/Lot 254	Out of zone	Complete
117-121 Prospect Ave	Residenital	29	117-121 Prospect Ave, Block/Lot 441	No	Complete
425-429 Avenue C	Residential	19	425-429 Avenue C, Block/Lot 230	No	Complete
Woodmont Bayonne	Residential	85 units	West 52nd St Block 37 Lot	No	Complete
77 E 21st St	Residential	56	77 E 21st St, Block/Lot 456	No	Complete
115-117 W 2nd St Jinco	Residential	12	115-117 W 2nd St, Block/Lot 365 Lot 9	Yes	Complete

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
100 Goldsborough Drive	See "Bayonne Redevelopers Residential UR Block 780" above	-	100 Goldsborough Drive, Block/Lot 780	Site V zone a raised out of floodplain	Under Construction
Bayonne Bay West – Phase 1 & 2	Residential	500	803/15, 815/1, 820/1, 821/1, 823/1, 824/1&2, 825/1&2	A Zone (site elevated out of floodplain)	Complete & Occupied
Bayonne Bay West – Phase 3	Residential	102	Block 820, Lot 1	A Zone (site elevated out of floodplain)	Under Construction
Building 19	See Bayonne Bay West, above	-	Block/Lot 824	A Zone (site elevated out of floodplain)'	Under Construction
Building 17	See Bayonne Bay West, above	-	Block/Lot 824	A Zone (site elevated out of floodplain)	Under Construction
Building 13	See Bayonne Bay West, above	-	Block/Lot 824	"' A Zone (site elevated out of floodplain	Under Construction
Building 14	See Bayonne Bay West, above	-	Block/Lot 825	A Zone (site elevated out of floodplain "'	Under Construction
Building 16	See Bayonne Bay West, above	-	Block/Lot 825	'A Zone (site elevated out of floodplain'	Under Construction
Building 21	See Bayonne Bay West, above	-	Block/Lot 824	A Zone (site elevated out of floodplain ""	Under Construction
Building 22	See Bayonne Bay West, above	-	Block/Lot 825	""A Zone (site elevated out of floodplain	Under Construction
275 Chosin Few Way	See "275 Chosin Few Way" above	-	275 Chosin Few Way, Block/Lot 600	""A Zone (site elevated out of floodplain	Under Construction
Link Warehouse	Commercial/warehouse	1 building	Block 471, Lot 3	A Zone (site raised out of floodplain)	Complete and occupied
Bridge Warehouse	Commercial/warehouse	1 building	Block 416, Lot 3	A Zone (site raised out of floodplain)	Complete and occupied
317 Avenue E	Residential	162	317 Avenue E, Block/Lot 191	Yes	Complete and occupied
Amazon	Commercial/warehouse	1 building	Block 333.03, Lot 2	A Zone (site raised out of floodplain0	Compete and occupied
7 Hook Road	Commercial/warehouse	1 building	7 Hook Road	A Zone (site raised out of floodplain)	Compete and occupied

** Only location-specific hazard zones or vulnerabilities identified.*

Table 3-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
1888 Studios	Commercial/Studio	20+ structures	West Avenue & First Street	Former AE & Coastal A Zones (FEMA maps have been modified to remove designation)	Anticipated construction start in 2025
Prologis Constable Hook Duke Realty LLC	Commerical Warehouse Commercial/Warehouse	5 structures 1,682,880 sq ft 5 structures	Block 478, Lot 1 Block 466 Lot 1 Block 465 Lot 9	A & V Zones. Site to be raised out of floodplain	Anticipated construction start in 2026 Anticipated start in 2026
Gamal East	Residential	Multiple structures	Block 361, Lot 12 & Block 362, Lot 3	A Zone (site to be raised out of floodplain)	Approved
Gamal West	Mixed Use	TBD	Block 360, Lot 1	A & V Zones (site to be raised out of floodplain)	Concept
White Glove	TBD	TBD	Block 373, Lots 1,2, 13 & 14	A Zones	Concept
IMTT West	TBD	TBD	Block 333.01, Lot 7	A Zone & V Zone	Concept
IMTT Constable Hook	TBD	TBD	Constable Hook (multiple properties)	A and V Zones	Concept
Nacirema Bayonne Waterwalk Luxury LLC	Residential	TBD	Block 303.03, Lot 1	A and V Zones (site to be raised out of floodplain()	Approved. Anticipated construction start in 2026
Former A&P	Mixed Use	1,100 units 55,000 sq ft commercial	Block 300.01, Lots 1, 2 and 3;	A and V Zones (site to be raised out of floodplain)	Approved. Anticipated construction start in 2026
Bayonne Ferry	Commercial	Ferry dock and improvements	Block 930, Lot 1	A and V Zones	Anticipated construction start in 2025.
Cape Liberty Cruise Port Expansion	Commercial	TBD	Block 1100, Lot 1	A and V Zones	Concept
Bayonne Bay East	Residential	1,250 units	Block 830	A Zone	Approved
Harbor Station North – Phase 4	Commercial	1 building	Block 660, Lot 1	None	Concept
One Commerce	Commercial	1 building	Block 480, Lot 5.02	A and V Zones	Approved

3.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Bayonne's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

3.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the City are shown in Figure 3-1 through Figure 3-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Bayonne has significant exposure. The maps show the location of potential new development, where available.

Figure 3-1. Bayonne Hazard Area Extent and Location Map 1

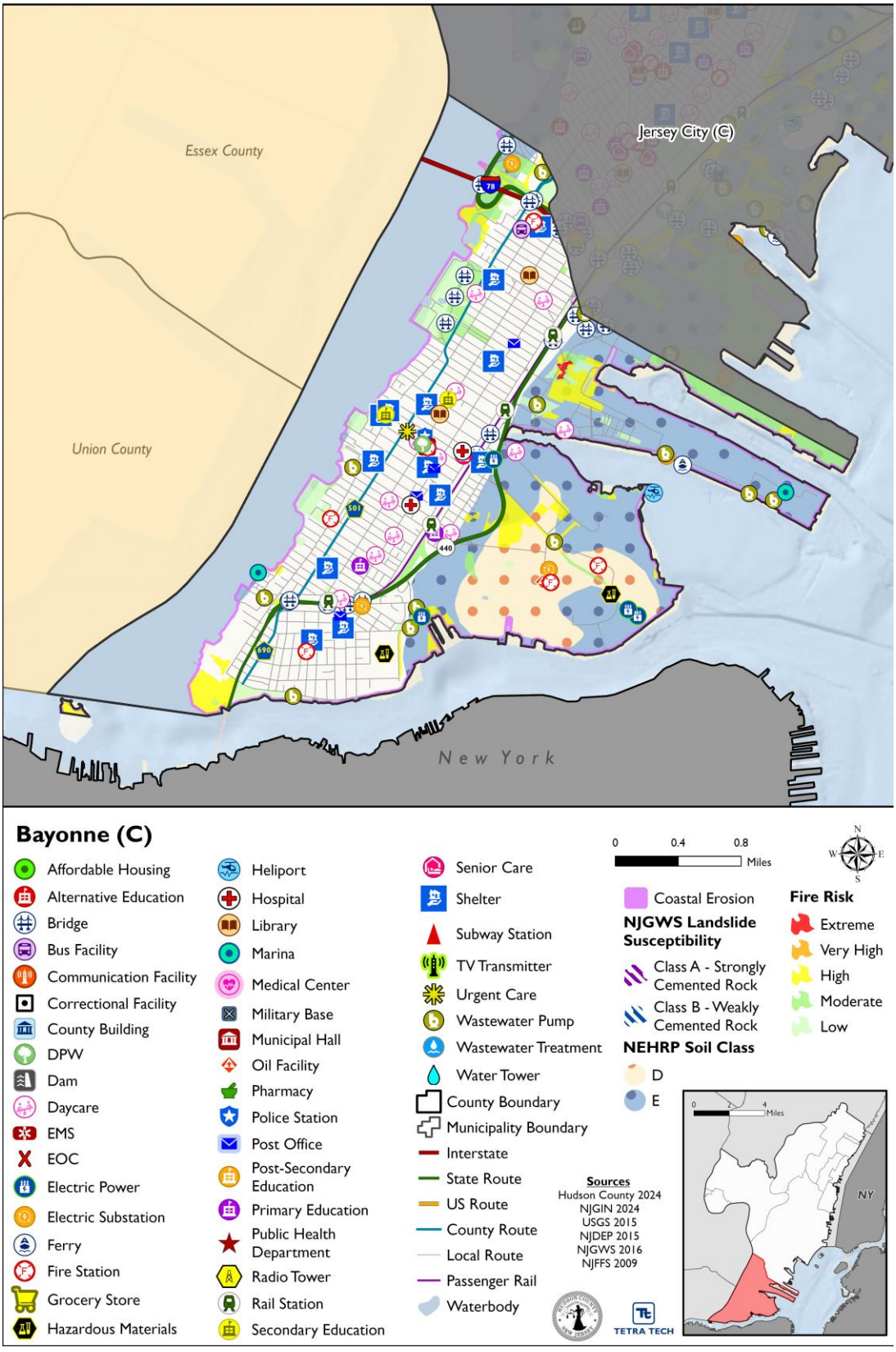


Figure 3-2. Bayonne Hazard Area Extent and Location Map 2

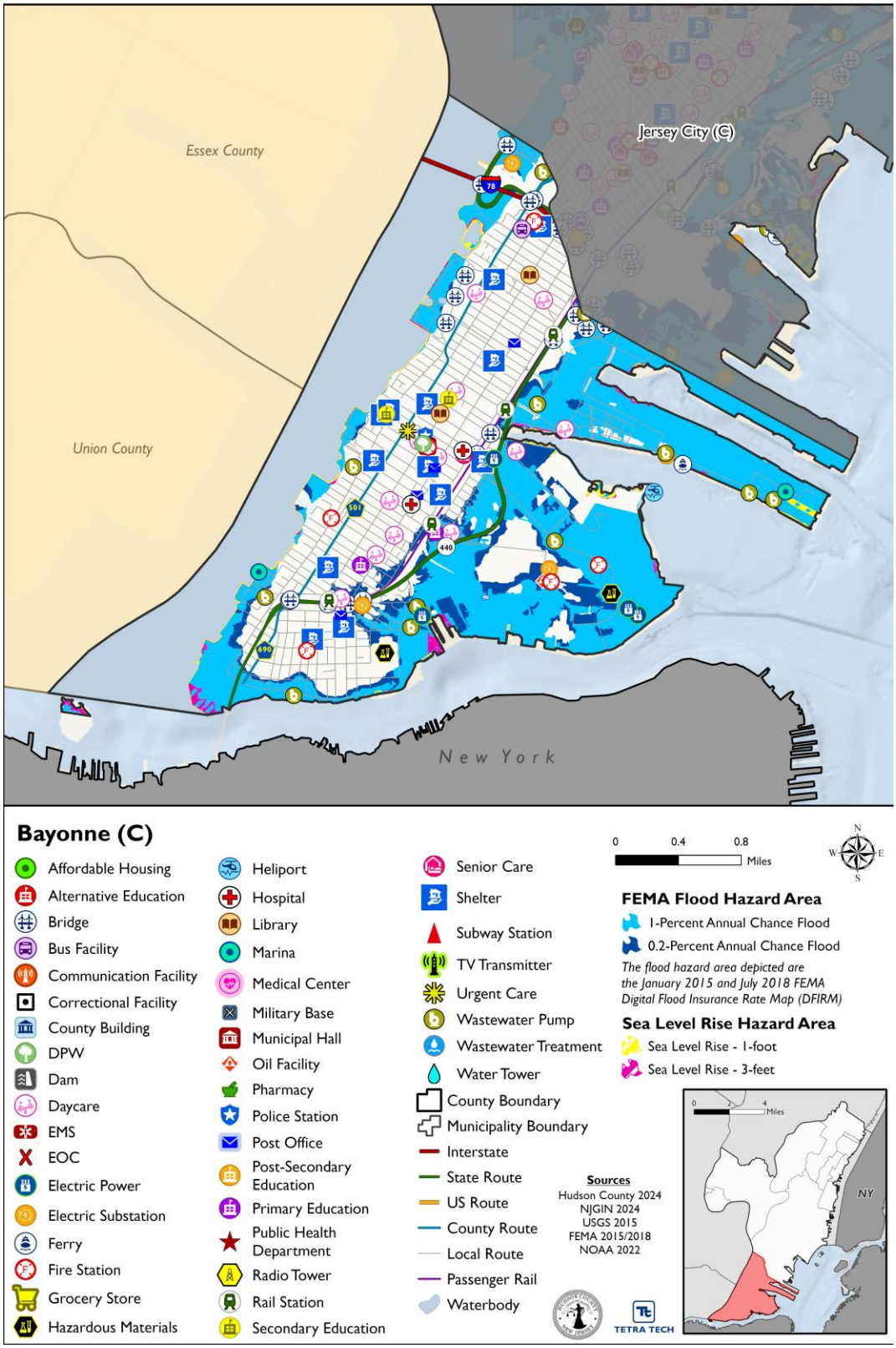
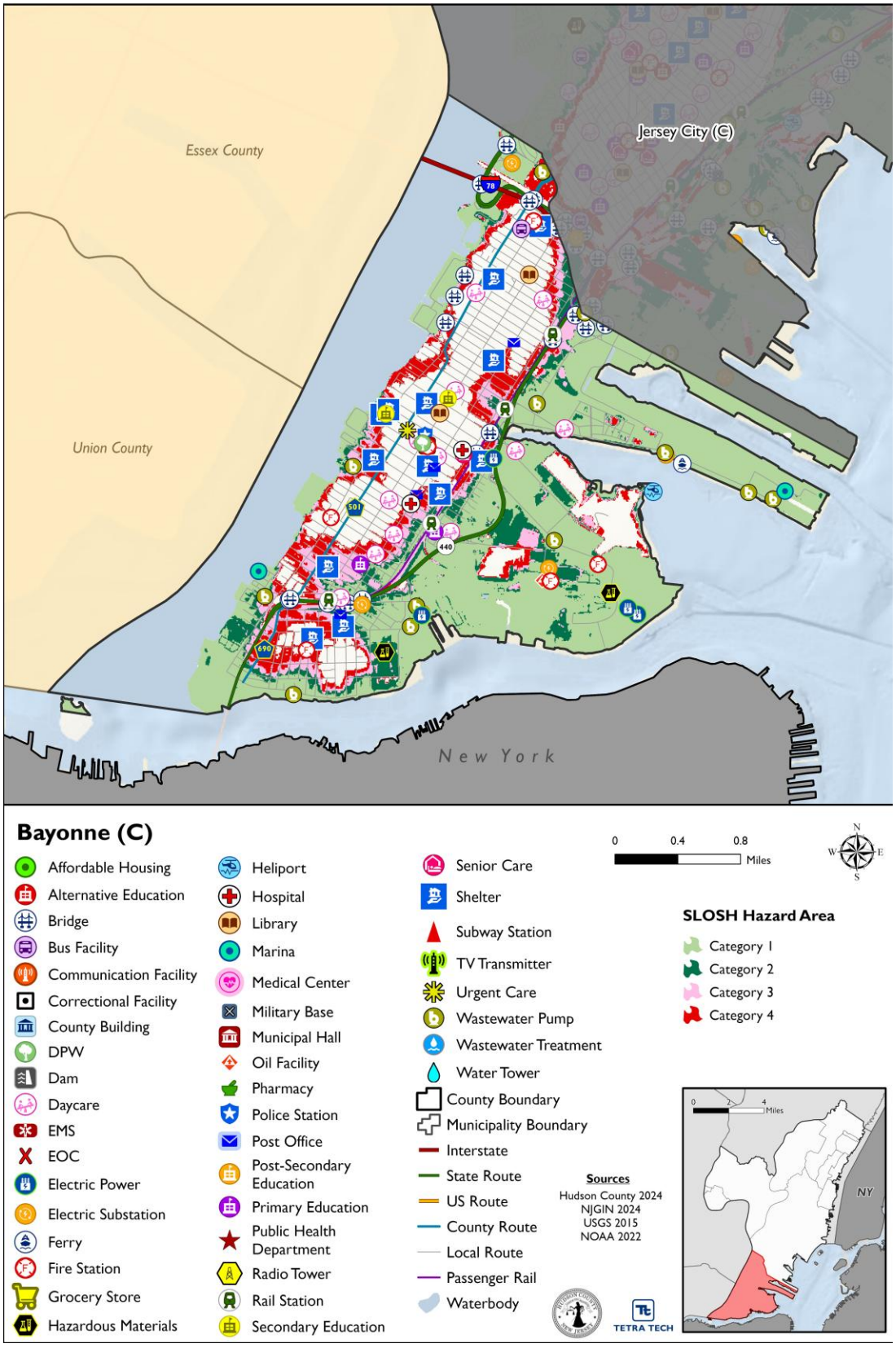


Figure 3-3. Bayonne Hazard Area Extent and Location Map 3



3.6.2 Hazard Event History

The history of natural and non-natural hazard events in Bayonne is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 3-14 provides details on loss and damage in Bayonne during hazard events since the last hazard mitigation plan update.

Table 3-14. Hazard Event History in Bayonne

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Bayonne
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	None reported.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	None reported.
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	None reported.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	None reported.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	None reported.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours.This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	None reported.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Bayonne
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	None reported.
March 23, 2024	Heavy Rains	No	Heavy rainfall led to flooding and prolonged road closures along the Bayonne I-78/NJ Turnpike entrance	None reported.
April 5, 2024	Earthquake	No	A 4.8 magnitude earthquake originating from Lebanon, NJ shook a large portion of the State.	This earthquake led to piping damages for a sewer pump station in Bayonne. Damages from the earthquake totaled over $30,000.

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

3.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Bayonne .

3.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. Bayonne reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the City indicated the following:

- None identified

Table 3-15 shows Bayonne's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 3-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Low
Drought	Medium
Extreme Temperatures	Medium
Flood	High
Geological Hazards	Low
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

3.6.3.2 Critical Facilities

Table 3-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 3-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
1st Street Pumping Station	Wastewater Pump	X	X
5th Street Pumping Station	Wastewater Pump	X	X
Adventures in Learning Daycare	Daycare	X	X
Avenue J Pumping Station	Wastewater Pump	X	X
Bayonne Energy Center	Electric Power	X	X
Bayonne Gen.	Electric Power	X	X
Bayonne Golf Club, Site A	Heliport	X	X
Bayonne Industries	Electric Substation	X	X
Bayonne Sub and Switch	Electric Substation	X	X
Beacon Christian Academy & Messiah Christian High School	Primary Education	X	X
Bergen Point Substation	Electric Substation	-	X
BROADWAY	Bridge	-	X
Buckeye Terminal Bayonne	Hazardous Materials	X	X
Cape Liberty Cruise port	Marina	X	X
CITY OF BAYONNE FIRE DEPARTMENT STATION 7	Fire Station	X	X
Constable Hook Sub.	Electric Substation	-	X
DOREMUS AVE NAVY ST	Bridge	X	X
E 34TH St. Station	Rail Station	-	X

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
ELCO Boat basin	Marina	X	X
IMTT International Matex Tank Terminal	Oil Facility	-	X
INTERNATIONAL MATEX TANK TERMINAL	Fire Station	X	X
Lightbridge Academy	Daycare	-	X
LINNET STREET	Bridge	-	X
Little Lamb Preschool	Daycare	X	X
M.O.T. West	Electric Substation	X	X
NJ 440	Bridge	X	X
NJ440 AVE.E CIR RR	Bridge	-	X
Oak Street Pumping Station	Wastewater Pump	X	X
Peninsula at Bayonne Harbor	Ferry	X	X
Peninsula Pumping Station No. 1	Wastewater Pump	X	X
Peninsula Pumping Station No. 1a	Wastewater Pump	X	X
Peninsula Pumping Station No. 2	Wastewater Pump	X	X
Peninsula Pumping Station No. 3	Wastewater Pump	X	X
PSE&G/Bayonne	Electric Power	X	X
Pulaski Street	Bridge	-	X

Source: Hudson County; HIFLD; NJGIN

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Bayonne:

- None Identified

3.6.4 Identified Issues

After review of Bayonne's hazard event history, hazard rankings, hazard location, and current capabilities, Bayonne identified the following vulnerabilities within the community:

- Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:
    - Determine where the damage occurred within the community and if the damaged structures are in an SFHA.
    - Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.
    - Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.

- Require permits for floodplain development.

The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.

- The 22nd Street underpass, which provides access to the HBLRT Station, is a city-owned roadway that experiences frequent and severe flooding. This recurring issue has resulted in multiple instances where motorists and pedestrians, particularly transit users, have required rescue by boat during flash flood events. In addition to the flood hazard, the sidewalks along the underpass are not fully accessible, posing safety and mobility challenges for pedestrians, including those with disabilities, during both normal and emergency conditions.
- There are 8 wastewater pump stations in the City that are located in the regulatory flood plain. These pump stations have been inundated at times and need flood mitigation as they are lifeline facilities. These are also in the repetitive loss areas of the City.
- Numerous critical facilities are not owned by the City and are prone to flooding.
- In 2015, the NJDEP issued requirements mandating that all CSO dischargers in New Jersey develop Long Term CSO Control Plans (LTCPs) by June 2020.
- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.

- Storm sewer systems are undersized in the following areas:
  - 10th street/Avenue A
  - 9th Street
  - Hook Road
- This section of the City's shoreline requires additional protection from erosion and flooding.
- The shoreline at Collins Park is experiencing erosion, and the park itself is heavily used by the community.
- The City lacks a ferry terminal for emergency waterborne access.
- OEM requires a High Water Rescue Vehicle to support emergency response efforts in areas prone to flooding.
- Areas within the floodplain are susceptible to flood damage, including some residential zones. The City currently has eight repetitive loss properties, as documented by paid claims through the NFIP.

3.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

3.7.1 Past Mitigation Action Status

Table 3-17 indicates progress on the City's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

3.7.2 Additional Mitigation Efforts

In addition to the completed mitigation actions from the previous HMP, Bayonne identified the following mitigation efforts completed since the last HMP:

- None Identified

Since the adoption of the County's first HMP, Bayonne has made significant mitigation progress as listed in Table 3-18.

Table 3-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Bayonne-001	Generator for City Hall	All Hazards	Public Works	**Problem:** The backup generator at City Hall is unable to fully power the building and has been in danger of failure for several years. Replacement parts are obsolete. Replacing generator in current location is not feasible due to cost for installation (would need to be disassembled then reassembled). Generator servicing contractor has encouraged replacement for the last 10 years. **Solution:** Purchase and install a new generator. The generator is to be installed outside of the mayor's office. Provide and install a 600kW diesel generator, outdoor NEMA 3R, sound attenuated with a 24-hour subbase fuel tank UL listed, block heater, remote annunciator, and a 2000 amp service entrance rated automatic transfer switch. The generator will be placed on a new concrete pad, within a new fence.	1. Complete 2. N/A	1. Discontinue 2.N/A 3. This action has been completed

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Bayonne-002	22nd St. Underpass Flood Mitigation	Flood, Severe Weather	Public Works	**Problem:** This is a city-owned street that is subject to frequent serious flooding. There have been numerous times that motorists and pedestrians (from the light rail station) have been rescued by boat. **Solution:** Construct a road/culvert modification to alleviate the flood hazard and integrate green infrastructure as part of the solution. During a flash flood, it is necessary to close and evacuate the light rail station.	1.No Progress 2. Pre-planning phase	1.Include 2. 22nd St underpass to HBLRT Station – make sidewalks accessible 3. N/A
2020-Bayonne-003	Pump Station Flood Mitigation	Flood	Bayonne MUA, Engineering	**Problem:** There are 8 wastewater pump stations in the City that are located in the regulatory flood plain. These pump stations have been inundated at times and need flood mitigation as they are lifeline facilities. These are also in the repetitive loss areas of the City. **Solution:** Floodproof the pump stations to at or above the 500-year flood elevation. Phases for this project include determination of the required elevation, determination if the facility should be elevated or floodproofed, application of grant funding, and project implementation.	1.In Progress 2. -	1.Include 2.Bayonne MUA is now Municipal Services. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Bayonne-004	Conduct Outreach to Hazard Prone Critical Facility Operators	Flood	Floodplain Administrator	**Problem:** Numerous critical facilities are not owned by the City and are prone to flooding . **Solution:** The City will conduct outreach to operators of critical facilities to educate them on their hazard exposure and possible mitigation actions.	1. In Progress 2.-	1.Include 2.No Change 3. N/A
2020-Bayonne-005	Update the Flood Damage Prevention Ordinance	Flood	Administration	**Problem:** The ordinance needs to be updated with the State's freeboard mandate. **Solution:** The City will update the ordinance to include freeboard.	1.In Progress 2. -	1.Include 2.No Change 3. N/A
2020-Bayonne-006	Long Term Control Plan	Flood, Severe Storm	Administration	**Problem:** In 2015, the NJDEP issued requirements mandating that all CSO dischargers in New Jersey develop Long Term CSO Control Plans (LTCPs) by June 2020. **Solution:** The LTCP is a comprehensive, system-wide evaluation of the sewage infrastructure and the hydraulic relationship between the sewers, precipitation, treatment capacity, and overflows. As part of the LTCP, each permittee must assess alternatives to reduce or eliminate CSO discharges and develop a plan and implementation schedule to achieve this goal. These plans are designed to identify the most cost-effective strategies for regulating CSOs in order to meet water quality standards.	1.In Progress 2. -	1.Include 2.Add Municipal Services to responsible party. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Bayonne-007	Generator for Washington Community School	All hazards	Bayonne Board of Education	**Problem:** The Washington Community School currently lacks a backup power source. **Solution:** To address this issue, emergency generators are planned to be installed at the school, which is located at 48th Street and Avenue B.	1.No Progress 2. This action will be removed	1.Discontinue 2.N/A 3. The City has advised to remove this action.
2020-Bayonne-008	Enlarge storm sewer systems in flood prone areas	Flood	Bayonne MUA, Engineering	**Problem:** Storm sewer systems are undersized in the following areas: • 10th street/Avenue A • 9th Street • Hook Road **Solution:** Enlarge storm sewer systems in the flood-prone areas of: • 10th street/Avenue A • 9th Street • Hook Road	1.In Progress 2. Was exploring the BRIC grant- had applied.	1.Include 2.Bayonne MUA is now Municipal Services. 3. N/A
2020-Bayonne-009	Coastal Wetland Enhancement / Living Shorelines	Coastal Storm, Flood	Department of Public Works	**Problem:** This section of the City's shoreline requires additional protection from erosion and flooding. **Solution:** To address this, the City will explore the use of coastal wetlands and living shorelines as natural protective systems to enhance shoreline resilience.	1.In Progress 2. -	1.Include 2.Add Municipal Services to responsible party and remove DPW. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Bayonne-010	Collins Park Shoreline Stabilization	Coastal Storm, Flood	Department of Public Works	**Problem:** The shoreline at Collins Park is experiencing erosion, and the park itself is heavily used by the community. **Solution:** To address this issue, the City plans to enhance the existing rock revetment and incorporate a living shoreline component to provide additional natural protection and stability.	1.In Progress 2. -	1.Include 2.No Change 3. N/A
2020-Bayonne-011	Ferry Terminal	All hazards	Engineering, Administration	**Problem:** the City lacks a ferry terminal for emergency waterborne access. **Solution:** The City will construct a ferry terminal.	1.In Progress 2. -	1.Include 2.Remove Engineering from responsible party. 3. N/A
2020-Bayonne-012	OEM High Water Rescue	Flood	OEM	**Problem:** OEM requires a High Water Rescue Vehicle to support emergency response efforts in areas prone to flooding. **Solution:** To meet this need, the City will proceed with the purchase of a High Water Rescue Vehicle.	1.In Progress 2. Looking for funding source.	1.Include 2.No Change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Bayonne-013	Elevation of City-Wide Park Buildings in Flood Zones	Flood	Department of Public Works	**Problem:** City Park buildings are vulnerable to damage, including facilities with bathrooms that pose a risk of sewage releases and a maintenance building that stores chemicals. **Solution:** To address these risks, the City will conduct a feasibility assessment to determine which facilities need to be elevated. Following this assessment, the City will apply for funding support and proceed with elevating the appropriate buildings.	1.No Progress 2. This action will be removed.	1.Discontinue 2.N/A 3. The City has advised to remove.
2020-Bayonne-014	Repetitive Loss Mitigation	Flood, Severe Weather, Coastal Storm	NFIP Floodplain Administrator, supported by homeowners	**Problem:** Areas within the floodplain are susceptible to flood damage, including some residential zones. The City currently has eight repetitive loss properties, as documented by paid claims through the NFIP. **Solution:** To address this issue, the City will conduct outreach to 30 flood-prone property owners, including those with RL and SRL designations, to provide information on available mitigation alternatives. Once preferred mitigation measures are identified, the City will collect the necessary information from property owners and develop a FEMA grant application, along with a BCA, to secure funding for the acquisition, purchase, relocation, or elevation of residential homes in high-risk flood-prone areas.	1.In Progress 2. Applied for funding.	1.Include 2.Add Municipal Services, and Business Administrator to responsible party. 3. N/A

Table 3-18. Additional Mitigation Projects

Project Name	Description	Status
63rd Street Pump Station Flood Mitigation Project (Element 1 - Generator and Switchgear)	**Flood Mitigation and emergency backup.** This project is subject to a BRIC grant applying to both the Emergency Generator / Switchgear and Pump Station Outfall Improvements as 1 2.9M project. The generator is also subject to a 10/19/2021 ACO involving other generators at MOTBY and Avenue J which are not subject to the Grant. The Generator and Switchgear design was done by CME. The Outfall and Pump station improvement design is being done by RVE.	Contract for Generator was awarded in January 2025. The outfall design is expected to be completed in early spring 2025. Anticipated completion within a year, dependent on supply chains.
Generators at Avenue J and MOT sewer pump stations	**EMERGENCY Backup.** This involves emergency generators at the Avenue J and Motby Pump stations.	Design completed and Contracts were awarded at February 2025 Council meeting. Anticipated completion within a year, dependent on supply chains.
Cottage Street Flood Resiliency Project	Involves a BRIC grant for relief of flooding in the area of Cottage Street Park. Stage 1 BRIC funding for design approved - Competing Engineering Solutions have been discussed involving storage under the park, upgrades to the 5th Steet Pump Station and Storm Separation. Specification in progress by RVE.	Design completion expected by summer 2025. BRIC grant will need extension for construction phase.
Interconnection (Wheeling) Agreements (Emergency Water Supply & Storage Waiver)	Formalizing interconnection agreements with Kearney and Jersey City and confirm to DEP under N.J.A.C. 7:19-6.9. Vital to emergency / redundant water supply and DEP storage waiver.	Negotiations in process, goal is to have formal agreements within 6 months.
Aqueduct Directional Drill Project (See also: Aqueduct Relining)	This project involves the replacement of the Bayonne Aqueduct's twin iron pipes at the bottom of the Hackensack River with a new line placed under the river by means of directional drilling. Existing lines are a single source of failure for City Water Supply.	Design is 90% complete. There are easement acquisition and financing elements associated with the project as well as an interest in prioritizing relining of the upland portions of the aqueduct.
Aqueduct Relining	This project involves relining of upland sections of the 11 mile Bayonne Aqueduct that has been prone to breaks and leakage due to the age of the pipe (101 yrs.) and surroundings (marsh, chromium). This is a critical water supply asset currently suspected of leaking approximately 1 MGPD.	Design by CDM Smith to begin in 2025. This is the subject of a recently created I-Bank application (Feb 2025).
Avenue F - Sewer Repair	Involves suggested repair of between E 24th St and Mechanic Steet (partially collapsed) 2 blocks ~ 600 feet (200 of 12" and 400 of 18")	Design Complete. Awaiting financing and Bid.
52nd St Sewer Repair	Proposed Project to replace 1st 30 feet off Avenue E at east 52nd street. (near rear of quick check) - Flood Mitigation - Electric and gas mains in the way - can't excavate open cut - can potentially reline that section.	Not Started - needs design and funding
Bar Screen Replacement - Oak Street Pump Station	The sanitary bar screens at the oak street pump station are at the end of their service life, with replacement parts no longer available and need replacement ASAP in order to protect the downstream pumps and force main.	Preliminary design completed with a cost estimate of $8,115,000. Financing and Final Bid Specs to follow in 2025. Goal is to complete this year (2025). May need further modification to include a repair of the Vortex chamber – which is needed but could also be handled or bid separately.

Project Name	Description	Status
10th Street Water and Sewer Line Replacement	Project to replace both water and sewer mains between avenue A and the Bay, including lead service lines where applicable and additional fire hydrant. Improves water supply, flood management and fire safety.	Construction phase successfully completed. Road restoration follow up in parking. In Spring.
Long Term Control Plan (Selection and Implementation of Alternatives Report SIAR & Regional Plan Estimates)	Required 85% CSO capture under Clean Water Act. NJPDES Permit renewal is imminent. Draft indicates DEP preference for "regional" plan, but allocation of costs has not been agreed to by participating communities and parallel interceptor costs have risen exponentially since 2020.	Local and Regional plan analysis was completed in 2020, needs updating for increased costs which have escalated dramatically. Local share not yet determined but expected in the hundreds of millions for both Bayonne and Jersey City.
North Street Pump Station and Force Main upgrade (Hypothetical)	West side development from 5th street to North street is expected to overwhelm the existing capacity of the North Street pump station and force main which currently serves Boatworks and the North Street Development. (currently serves ~ 300 units >1,100 are expected)/	Pump Station and force main upgrade needs both design and financing. Preliminary estimate is approximately $10,000,000.
Turnpike Stormwater Management	This involves drainage for the new bridge over the Hackensack River. There is an open question as to a 54" RCP pipe and outfall at Rutkowski Park as well as a proposed drainage basin. There is a question as to ownership and function of the 54" pipe and outfall and the type of drainage basin to be used in the project (Covered vs. uncovered). with respect to which the City wants a covered basin and Turnpike wants an open one.	Negotiations with turnpike ongoing.
Avenue E Valves and Water Main replacement	Anticipated project to replace non-functioning vales on Avenue E along with a section of deteriorated water main in the area of Avenue E and Willow Street. This will stop recurrent leaks and enable service of portions of the line without shutting down service to large sections of the community.	Awaiting design and funding.
Ingham Avenue Outfall Repair (aka Ken's Marine)	CSO outfall and bulkhead repair previously agreed to by the parties.	Waterfront Development Permit issue has arisen in proceeding with this project. Owner does not want to pay for the permit which City sees as clearly Owner's responsibility as it appears prior owner extended bulkhead without approval.

3.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Bayonne participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Bayonne would like to pursue in the future to reduce the effects of hazards. The actions 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 City priorities.

Table 3-19 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 3-20 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 3-19. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X	X			X					X
Drought	X	X			X					X
Extreme Temperatures	X	X			X					X
Flood	X	X	X	X	X	X	X	X	X	X
Geological Hazards	X	X			X					X
Severe Weather	X	X	X		X	X		X	X	X
Severe Winter Weather	X	X			X					X
Wildfire	X	X			X					X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 3-20. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-Bayonne-001	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	**13**	High
2025-Bayonne-002	22nd Underpass Flood Mitigation	1	1	1	1	1	0	1	0	1	1	1	1	0	0	**10**	Medium
2025-Bayonne-003	Pump Station Flood Mitigation	0	1	1	1	1	0	0	1	1	1	1	1	1	0	**10**	Medium
2025-Bayonne-004	Conduct Outreach to Hazard Prone Critical Facility Operators	1	1	1	1	1	1	0	1	1	1	1	1	1	1	**13**	High
2025-Bayonne-005	Long Term Control Plans	1	1	1	1	1	0	1	1	1	1	1	-1	0	1	**11**	High
2025-Bayonne-006	Update Flood Damage Prevention Ordinance	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**14**	High
2025-Bayonne-007	Enlarge Storm Sewer Systems	0	1	1	1	1	0	0	1	1	1	1	1	0	0	**9**	Medium
2025-Bayonne-008	Coastal Wetland Enhancement/Living Shorelines	0	1	1	1	1	1	1	0	1	1	1	1	0	0	**10**	Medium
2025-Bayonne-009	Collins Park Shoreline Stabilization	0	1	1	1	1	1	1	0	1	1	1	1	0	0	**10**	Medium
2025-Bayonne-010	Ferry Terminal	1	0	1	1	1	1	0	1	1	1	1	-1	0	0	**9**	Medium
2025-Bayonne-011	OEM High Water Rescue	1	1	1	1	1	1	0	1	1	1	1	1	0	0	**11**	High
2025-Bayonne-012	Repetitive Loss Mitigation	1	1	1	1	1	0	0	1	1	1	1	1	1	1	**12**	High

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

Action 2025-Bayonne-001. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	City OEM, City DPW
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
Description of the Solution:	The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 *Developing a Substantial Damage Management Plan* (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	3, 6
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
Impact on Capabilities:	This action improves disaster recovery capabilities.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
Mitigation Category	Local Plans and Regulations
CRS Category	Emergency Services, Preventative Measure
Priority	High

Alternatives	Action	Action
	No Action	No Action
	Rely on state or federal resources following disaster events	Rely on state or federal resources following disaster events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	Establish MOUs with outside agencies to conduct Substantial Damage Determinations

Action 2025-Bayonne-002. 22nd Underpass Flood Mitigation

Lead Agency:	Public Works
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	The 22nd Street underpass, which provides access to the HBLRT Station, is a city-owned roadway that experiences frequent and severe flooding. This recurring issue has resulted in multiple instances where motorists and pedestrians, particularly transit users, have required rescue by boat during flash flood events. In addition to the flood hazard, the sidewalks along the underpass are not fully accessible, posing safety and mobility challenges for pedestrians, including those with disabilities, during both normal and emergency conditions.
Description of the Solution:	Construct a comprehensive road and culvert modification project to alleviate the flood hazard at the 22nd Street underpass. The project will integrate green infrastructure elements to manage stormwater more effectively. As part of the redesign, sidewalks will be reconstructed to meet ADA accessibility standards, ensuring safe and equitable access to the HBLRT Station. The project will also include protocols for temporary closure and evacuation of the station during flash flood events.
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP
Implementation Timeline:	1-5 years
Goals Met:	1,2,7
Benefits:	Reduced flood risk and emergency response needs.
Impact on Socially Vulnerable Populations:	Improves safety and access for transit-dependent populations, including low-income residents and those without personal vehicles.
Impact on Future Development:	Supports safe and sustainable development in the area by reducing flood risk and improving infrastructure capacity.
Impact on Critical Facilities/Lifelines:	Protects access to and operation of the light rail station, a key transportation lifeline.
Impact on Capabilities:	Enhances local flood mitigation and emergency response capabilities; supports integration of green infrastructure into future projects.
Climate Change Considerations:	Addresses increased frequency and intensity of extreme precipitation events; supports climate adaptation through nature-based solutions.
Mitigation Category	Structure and Infrastructure Projects; Natural Systems Protection
CRS Category	Preventative Measures, Structural Flood Control Projects
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Elevate roadway only	Does not address full issue
Install temporary flood barriers	Reactive; Does not address root cause

Action 2025-Bayonne-003. Pump Station Flood Mitigation

Lead Agency:	Municipal Services
Supporting Agencies:	Engineering
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	There are 8 wastewater pump stations in the City that are located in the regulatory flood plain. These pump stations have been inundated at times and need flood mitigation as they are lifeline facilities. These are also in the repetitive loss areas of the City.
Description of the Solution:	Floodproof the pump stations to at or above the 500-year flood elevation. Phases for this project include determination of the required elevation, determination if the facility should be elevated or floodproofed, application of grant funding, and project implementation.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA HMGP, Annual Budget
Implementation Timeline:	1-5 years
Goals Met:	2,6
Benefits:	Reduction of flooding, decrease of contaminated water impacting community, continuity of lifeline services.
Impact on Socially Vulnerable Populations:	Vulnerable areas that may otherwise experience a loss of water during heavy rain or flooding will be more likely to retain services.
Impact on Future Development:	Communities with sound and resilient infrastructure encourage commercial and residential development.
Impact on Critical Facilities/Lifelines:	Hydration lifeline is more likely to remain intact.
Impact on Capabilities:	Maintaining operational water services reduces recovery time and costs.
Climate Change Considerations:	Consideration should be taken regarding the increase in heavy rain and flood events as a result of climate change.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Relocate pump stations	Costly, and logistically complex
Rely solely on portable pumps	Reactive approach

Action 2025-Bayonne-004. Conduct Outreach to Hazard Prone Critical Facility Operators

Lead Agency:	Floodplain Administrator	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	Numerous critical facilities are not owned by the City and are prone to flooding.	
Description of the Solution:	The City will conduct outreach to operators of critical facilities to educate them on their hazard exposure and possible mitigation actions.	
Estimated Cost:	Medium	
Potential Funding Sources:	Municipal budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,5,6	
Benefits:	Reduced risk of service disruption during flood events.	
Impact on Socially Vulnerable Populations:	Helps ensure continuity of services (e.g., healthcare, utilities) that socially vulnerable populations rely on during and after disasters.	
Impact on Future Development:	Encourages flood-resilient design and planning for future facility upgrades or expansions.	
Impact on Critical Facilities/Lifelines:	Directly improves awareness and potential mitigation of flood risk for critical facilities and lifeline infrastructure.	
Impact on Capabilities:	Enhances local outreach, education, and coordination capabilities.	
Climate Change Considerations:	Supports adaptation to increased flood frequency and severity due to climate change.	
Mitigation Category	Education and Awareness Programs	
CRS Category	Public Information	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the City
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving guidance

Action 2025-Bayonne-005. Long Term Control Plan

Lead Agency:	Administration	
Supporting Agencies:	Municipal Services	
Hazards of Concern:	Flood, Severe Storm	
Description of the Problem:	In 2015, the NJDEP issued requirements mandating that all CSO dischargers in New Jersey develop Long Term CSO Control Plans (LTCPs) by June 2020.	
Description of the Solution:	The LTCP is a comprehensive, system-wide evaluation of the sewage infrastructure and the hydraulic relationship between the sewers, precipitation, treatment capacity, and overflows. As part of the LTCP, each permittee must assess alternatives to reduce or eliminate CSO discharges and develop a plan and implementation schedule to achieve this goal. These plans are designed to identify the most cost-effective strategies for regulating CSOs in order to meet water quality standards.	
Estimated Cost:	High	
Potential Funding Sources:	NJ DEP, Municipal budget	
Implementation Timeline:	5 or more years	
Goals Met:	2,3	
Benefits:	Enhances system capacity and resilience to severe storms.	
Impact on Socially Vulnerable Populations:	Reduces exposure to contaminated floodwaters in underserved neighborhoods often located near CSO outfalls.	
Impact on Future Development:	Supports sustainable growth by improving infrastructure capacity and compliance with environmental regulations.	
Impact on Critical Facilities/Lifelines:	Reduces flood risk and service disruptions to wastewater and stormwater systems.	
Impact on Capabilities:	Strengthens long-term planning, engineering, and environmental management capabilities.	
Climate Change Considerations:	Addresses increased precipitation intensity and frequency due to climate change; supports adaptive infrastructure.	
Mitigation Category	Structure and Infrastructure Projects, Local Plans and Regulations	
CRS Category	Preventative Measures	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Separate All Combined Sewers into Independent Sanitary and Stormwater Systems	Costly; Not feasible for municipalities
	Rely on Green Infrastructure	Will not fix the full problem

Action 2025-Bayonne-006. Update Flood Damage Prevention Ordinance

Lead Agency:	Floodplain Administrator
Supporting Agencies:	Administration
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.
Description of the Solution:	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.
Estimated Cost:	Staff time
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years
Goals Met:	5
Benefits:	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.
Impact on Socially Vulnerable Populations:	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.
Impact on Future Development:	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.
Impact on Critical Facilities/Lifelines:	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.
Impact on Capabilities:	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.
Climate Change Considerations:	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	High

Alternatives	Action	Evaluation
	No Action	-
	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage

Action 2025-Bayonne-007.Enlarge Storm Sewer Systems

Lead Agency:	Municipal Services
Supporting Agencies:	Engineering
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Storm sewer systems are undersized in the following areas: • 10th street/Avenue A • 9th Street • Hook Road
Description of the Solution:	Enlarge storm sewer systems in the flood-prone areas of: • 10th street/Avenue A • 9th Street • Hook Road
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP, HMA
Implementation Timeline:	1-5 years
Goals Met:	2
Benefits:	Reduced frequency and severity of localized flooding
Impact on Socially Vulnerable Populations:	Reduces flood risk in areas with high concentrations of low-income or elderly residents.
Impact on Future Development:	Supports sustainable growth and infrastructure capacity for future development.
Impact on Critical Facilities/Lifelines:	Improves access and reduces flood risk near schools, emergency routes, and utilities.
Impact on Capabilities:	Enhances local stormwater management and emergency preparedness capabilities.
Climate Change Considerations:	Future storm events are expected to be more intense and frequent due to climate change.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Structural Flod Control Projects
Priority	Medium

Alternatives	**Action**	**Evaluation**
	No Action	-
	Routine Maintenance Only	Does not address the core issue
	Elevating Roads and Properties	Costly, and disruptive

Action 2025-Bayonne-008. Coastal Wetland Enhancement/Living Shorelines

Lead Agency:	Municipal Services	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	This section of the City's shoreline requires additional protection from erosion and flooding.	
Description of the Solution:	To address this, the City will explore the use of coastal wetlands and living shorelines as natural protective systems to enhance shoreline resilience.	
Estimated Cost:	High	
Potential Funding Sources:	City Budget	
Implementation Timeline:	1-5 years	
Goals Met:	2	
Benefits:	Long-term, sustainable erosion control	
Impact on Socially Vulnerable Populations:	Protects nearby low-income neighborhoods from flooding and storm surge impacts.	
Impact on Future Development:	Stabilizes shoreline, allowing for safer adjacent development and recreational use.	
Impact on Critical Facilities/Lifelines:	Protects nearby roads, utilities, and public access points from erosion and flooding.	
Impact on Capabilities:	Enhances local capacity for nature-based solutions and coastal management.	
Climate Change Considerations:	Increases the frequency and severity of coastal flooding and erosion, even during regular high tides.	
Mitigation Category	Natural Systems Protection	
CRS Category	Natural Resource Protection	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Beach Nourishment Alone	Temporary and expensive over time
	Traditional Seawall	Costly, can worsen erosion

Action 2025-Bayonne-009.Collins Park Shoreline Stabilization

Lead Agency:	Department of Public Works	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The shoreline at Collins Park is experiencing erosion, and the park itself is heavily used by the community.	
Description of the Solution:	To address this issue, the City plans to enhance the existing rock revetment and incorporate a living shoreline component to provide additional natural protection and stability.	
Estimated Cost:	High	
Potential Funding Sources:	City Budget	
Implementation Timeline:	1-5 years	
Goals Met:	2	
Benefits:	Reduce shoreline erosion	
Impact on Socially Vulnerable Populations:	Preserves a free, accessible public space used by all community members, including those with limited recreational options.	
Impact on Future Development:	Stabilized shoreline supports safe use and potential future improvements to park infrastructure.	
Impact on Critical Facilities/Lifelines:	Protects park infrastructure and nearby utilities from erosion-related damage.	
Impact on Capabilities:	Enhances local capacity for nature-based shoreline management and climate adaptation.	
Climate Change Considerations:	Enhanced revetment and living shoreline to accommodate rising sea levels, increased storm surge, and more frequent extreme weather events, ensuring long-term resilience and protection of Collins Park	
Mitigation Category	Natural Systems Protection	
CRS Category	Natural Resource Protection	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Beach Nourishment Alone	Temporary and expensive over time
	Traditional Seawall	Costly, can worsen erosion

Action 2025-Bayonne-010. Ferry Terminal

Lead Agency:	Administration	
Supporting Agencies:	-	
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	The City lacks a ferry terminal for emergency waterborne access.	
Description of the Solution:	The City will construct a ferry terminal.	
Estimated Cost:	High	
Potential Funding Sources:	City Budget	
Implementation Timeline:	5 or more years	
Goals Met:	1,2	
Benefits:	Provides critical evacuation and supply route during disasters	
Impact on Socially Vulnerable Populations:	Ensures access to evacuation and emergency services for residents without vehicles or in isolated areas.	
Impact on Future Development:	Encourages resilient infrastructure planning and may support economic development through improved access.	
Impact on Critical Facilities/Lifelines:	Supports emergency response, hospital access, and utility continuity during disasters.	
Impact on Capabilities:	Significantly improves emergency transportation and evacuation capabilities.	
Climate Change Considerations:	Designing the ferry terminal to withstand rising sea levels, increased storm surge, and more frequent extreme weather events, ensuring it remains operational and accessible during climate-related emergencies.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Emergency Services	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Use temporary floating docks or barges	Less stable, may not support large-scale emergencies
	Helicopter Evacuations	Costly, weather constraints

Action 2025-Bayonne-011. OEM High Water Rescue

Lead Agency:	OEM	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	OEM requires a High Water Rescue Vehicle to support emergency response efforts in areas prone to flooding.	
Description of the Solution:	To meet this need, the City will proceed with the purchase of a High Water Rescue Vehicle.	
Estimated Cost:	High	
Potential Funding Sources:	City Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1, 2	
Benefits:	Enables safe evacuation and rescue during flood events	
Impact on Socially Vulnerable Populations:	Ensures timely rescue and evacuation for residents in low-lying or underserved areas who may lack transportation or mobility.	
Impact on Future Development:	Not Applicable	
Impact on Critical Facilities/Lifelines:	Ensures access to hospitals, shelters, and utilities during flood emergencies.	
Impact on Capabilities:	Significantly improves emergency response and rescue capabilities in flood-prone areas.	
Climate Change Considerations:	The increasing frequency and severity of flood events, which will make high water rescue operations more common and critical in the future.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Contract private rescue services	May not be available during widespread emergencies
	Use boats	Effective in deep water, less in urban or mixed terrain

Action 2025-Bayonne-012. Repetitive Loss Mitigation

Lead Agency:	NFIP Floodplain Administrator
Supporting Agencies:	Municipal Services, Business Administrator, Homeowners
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Areas within the floodplain are susceptible to flood damage, including some residential zones. The City currently has sixteen repetitive loss properties, as documented by paid claims through the NFIP.
Description of the Solution:	To address this issue, the City will conduct outreach to 30 flood-prone property owners, including those with RL and SRL designations, to provide information on available mitigation alternatives. Once preferred mitigation measures are identified, the City will collect the necessary information from property owners and develop a FEMA grant application, along with a BCA, to secure funding for the acquisition, purchase, relocation, or elevation of residential homes in high-risk flood-prone areas.
Estimated Cost:	High
Potential Funding Sources:	FEMA FMA, HMGP, City Budget, match from property owners
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,5,7
Benefits:	Eliminates flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.
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:	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.
Impact on Critical Facilities/Lifelines:	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.
Impact on Capabilities:	Removing the risk from the immediate floodplain via acquisition of properties will free up resources for search and rescue and other emergency operations as needed.
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of severe rainfall, flash flooding, riverine flooding, and coastal flooding from sea level rise and storm surge events. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Levee around floodplain	Costly, not enough room
	Deployable flood barriers	Requires deployment. Residents may not have adequate time to deploy, especially those who are elderly or disabled.

4. BOROUGH OF EAST NEWARK

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Borough of East Newark with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of East Newark, describes who participated in the planning process, assesses East Newark's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

4.1 Hazard Mitigation Planning Team

The Borough of East Newark identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Borough departments. The Deputy OEM Coordinator represented the community on the Hudson County HMP Planning Partnership and supported the local planning process 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.

Table 4-1 summarizes Borough officials who participated in the development of the annex and in what capacity. Additional documentation of the Borough's planning activities through Planning Partnership meetings is included in Volume I.

Table 4-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Junior Fiori, Deputy OEM Coordinator Address: 34 Sherman Avenue, East Newark, NJ 07029 Phone Number: 201-414-6033 Email: jfiori@boroughofeastnewark.com	Name/Title: Dina Grilo, Mayor/ OEM Coordinator Address: 34 Sherman Avenue, East Newark, NJ 07029 Phone Number: 973-985-9869 Email: dgrilo@boroughofeastnewark.com
National Flood Insurance Program Floodplain Administrator	
Name/Title: Anthony Chisari, Construction Code Official Address: 34 Sherman Avenue, East Newark, NJ 07029 Phone Number: 973-481-2902 Email: constructiondepartment@boroughofeastnewark.com	
Additional Contributors	
Name/Title: Sergeant Robert Tomasko, Deputy OEM Coordinator Method of Participation: Provided key input in the planning process by completing worksheets and attending meetings	
Name/Title: Anthony Chisari, Construction Code Official Method of Participation: Provided key input in the planning process by completing worksheets	
Name/Title: Dina Grilo, OEM Coordinator Method of Participation: Participated in the planning process.	

4.2 Community Profile

4.2.1 Brief History

The Borough of East Newark was formed from a portion of Kearny Township by referendum on July 2, 1895 after residents of Kearny's First Ward, feeling overlooked by their local government, voted to form their own municipality. Spearheaded by attorney Edward Kenny—who became the borough's first mayor and is celebrated as its founding figure—East Newark quickly gained independence following a successful vote and a dramatic midnight journey to Trenton to secure its charter. Despite its small size of just 64 acres, the borough has a proud legacy, once serving as a major center for thread processing and contributing to every major U.S. military conflict since the Spanish-American War.

4.2.2 Location

The Borough of East Newark is located along the eastern bank of the Passaic River in the western portion of the County. It shares its boundaries with Town of Kearny to the north, Town of Harrison to the east and south and County of Essex to the west.

4.2.3 Governing Body Format

The Borough of East Newark is governed by a Mayor and Borough Council made up of six members. This governing body will be responsible for the adoption and implementation of this plan.

4.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for East Newark was 2,594, a 4.9 percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 4.1 percent of the population is 5 years of age or younger, 11.9 percent is 65 years of age or older, 18.3 percent is non-English speaking, 8.1 percent is below the poverty threshold, and 24.6 percent is considered disabled.

4.2.4.1 ALICE in Hudson County

ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. While conditions have improved for some households, many continue to struggle, especially as wages fail to keep pace with the rising cost of household essentials (housing, childcare, food, transportation, health care, and a basic smartphone plan). Households below the ALICE Threshold – ALICE households plus those in poverty – can't afford the essentials.

According to 2021 Point-in-Time-Data from ALICE, 24 percent of the 292,000 households in Hudson County are ALICE households (compared to the state average of 26 percent). The median household income in Hudson is $80,329, and the County sees a labor force participation rate of 69 percent. Hudson County faces low household income compared to the state average of $89,296 and while the County does carry a 3 percent higher labor participation rate compared to state numbers, 15 percent of Hudson households live in poverty.

4.3 Jurisdictional Capability Assessment and Integration

East Newark performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

4.3.1 Planning and Regulatory Capability and Integration

Table 4-2 summarizes the planning and regulatory tools that are available to East Newark.

Table 4-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	State Uniform Construction Code Chapter 14 – Building and Housing	State and Local	Building Department
How has or will this be integrated with the HMP and how does this reduce risk? Building codes establish standards and regulations for construction and occupancy including structural integrity and fire safety. Adherence to building codes ensures that structures are designed and built to meet current safety standards, minimizing the risk of injury to life or property as a result of structural or systemic failure. State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14. Chapter 15 of Building and Housing. Adopted Uniform Construction Code.				
Zoning/Land Use Code	Yes	Chapter 33 - Zoning	Local	Building Department
How has or will this be integrated with the HMP and how does this reduce risk? The chapter is adopted pursuant to R.S. 40:55D-1, et seq., in order to promote and protect the public health, safety, morals and general welfare, and in furtherance of the following related and more specific objectives: a. To secure safety from fire, flood, panic and other natural and man-made disasters. b. To provide adequate light, air and open space. c. To ensure that the development of the Borough of East Newark does not conflict with the development and general welfare of neighboring municipalities, the County and the State as a whole. d. To promote the establishment of appropriate population densities and concentrations that will contribute to the well-being of persons, neighborhoods, communities and regions, and preservation of the environment. e. To encourage the appropriate and efficient expenditure of public funds by the coordination of public development with land use policies. f. To provide sufficient space in appropriate locations for a variety of residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements. g. To encourage the location and design of transportation routes which will promote the free flow of traffic while discouraging location of such facilities and routes which result in congestion or blight. h. To promote a desirable visual environment through creative development techniques and good civic design and arrangements. i. To encourage coordination of the various public and private procedures and activities shaping land development with a view of lessening the cost of such development and fostering the more efficient use of land. j. To promote utilization of renewable energy sources. k. To promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan goals and to complement municipal recycling programs.			
Subdivision Code	Yes	Chapter 31 – Subdivision of Land and Site Plan Review	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? Such regulations are deemed necessary to protect the character, stability and orderly development of all areas of the community; to secure safety from fire, flood, panic and other natural and man-made disasters and hazards; to encourage the proper location and design of streets; to promote a desirable visual and aesthetic environment through creative development techniques and good civic design and arrangements; to promote the conservation of open space and valuable resources; to prevent the degradation of the environment through improper land use, to provide adequate light, air and open space; and to provide rules, regulations and procedures which will guide the appropriate developments of lands within the community in order to promote the public health, safety, morals and general welfare.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Site Plan Code	Yes	Chapter 31 – Subdivision of Land and Site Plan Review	Local and County	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? Such regulations are deemed necessary to protect the character, stability and orderly development of all areas of the community; to secure safety from fire, flood, panic and other natural and man-made disasters and hazards; to encourage the proper location and design of streets; to promote a desirable visual and aesthetic environment through creative development techniques and good civic design and arrangements; to promote the conservation of open space and valuable resources; to prevent the degradation of the environment through improper land use, to provide adequate light, air and open space; and to provide rules, regulations and procedures which will guide the appropriate developments of lands within the community in order to promote the public health, safety, morals and general welfare.				
Stormwater Management Code	Yes	Chapter 21 – Sewer and Water	Local	Borough Engineer
How has or will this be integrated with the HMP and how does this reduce risk? No person shall discharge or cause to be discharged any stormwater, surface water, groundwater, roof runoff, subsurface drainage, uncontaminated cooling water, subject to the other provisions of this section, or unpolluted industrial process waters into the sanitary sewer system.				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?
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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:
• 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

Growth Management	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Flood Damage Prevention Ordinance	Yes	Chapter 26 – Flood Damage Prevention, August 2006	Federal, State, County and Local	Building Sub-Code Official
How has or will this be integrated with the HMP and how does this reduce risk? It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed: a. To protect human life and health; b. To minimize expenditure of public money for costly flood control projects; c. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; d. To minimize prolonged business interruptions; e. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard; f. To help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas; g. To insure that potential buyers are notified that property is in an area of special flood hazard; and h. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. The ordinance is not the model code coordinated ordinance and will require update.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	Yes	Chapter 2 – Offices Created	Local	East Newark OEM
How has or will this be integrated with the HMP and how does this reduce risk? Establishes the East Newark Office of Emergency Management and its subsequent positions that develop planning and preparedness resources for the Borough and its population.				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	Borough of East Newark, County of Hudson Master Plan Reexamination Report, 2021	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The Municipal Land Use Law requires the Reexamination Report to contain the following: a. The major problems and objectives relating to land development in the municipality at the time of the adoption of the last reexamination report. b. The extent to which such problems and objectives have been reduced or have increased subsequent to such date. c. The extent to which there have been significant changes in assumptions, policies and objectives forming the basis for the master plan or development regulations as last revised with particular regard to the density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, collection, disposition, and recycling of designated recyclable materials, and changes in State, county and municipal policies and objectives. d. The specific changes recommended for the master plan or development regulations, if any, including underlying objectives, policies and standards, or whether a new plan or regulations should be prepared. e. The recommendations of the Planning Board concerning the incorporation of redevelopment plans adopted pursuant to the "Local Redevelopment and Housing Law," P.L. 1992, c. 79 (C.40A: 12A1 et seq.) into the land use plan element of the municipal master plan, and recommended changes, if any, in the local development regulations necessary to effectuate the redevelopment plans of the municipality. f. The recommendations of the Planning Board concerning locations appropriate for the development of public electric vehicle infrastructure, including but not limited to, commercial districts, areas proximate to public transportation and transit facilities and transportation corridors, and public rest stops; and recommended changes, if any, in the local development regulations necessary or appropriate for the development of public electric vehicle infrastructure.			
Capital Improvement Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Disaster Debris Management Plan	Yes	Hudson County Disaster Debris Management Plan, 2017	County	Hudson County OEM
How has or will this be integrated with the HMP and how does this reduce risk? Addresses jurisdiction's coordinated response to manage debris following a debris-generating event.				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	Yes	Hudson County Stormwater Plan, 2004	State and County	Hudson County Division of Planning
How has or will this be integrated with the HMP and how does this reduce risk? Per NJDEP Storm Water Management Rule (N.J.A.C. 7:8, et seq.). The Municipal Stormwater Regulation Program was developed in response to the U. S. Environmental Protection Agency's (USEPA) Phase II rules published in December 1999. The Department issued final stormwater rules on February 2, 2004, and four (4) NJPDES general permits authorizing stormwater discharges from Tier A and Tier B municipalities, as well as public complexes, and highway agencies that discharge stormwater from municipal separate storm sewers (MS4s).				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Stormwater Pollution Prevention Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	Yes	East Newark Redevelopment Plan, 2017	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The East Newark Redevelopment Plan identifies areas of the Borough where substantial improvement is needed to encourage appropriate economic development and land use. The Redevelopment Plan consists of the following objectives for each area: a. The planning and development of the Redevelopment Plan Area with appropriate residential and commercial uses. b. The adaptive re-use of the former industrial and institutional buildings recognizing the size and scale of these buildings, and the modification or alteration of the facades and interiors of these buildings, where appropriate, to better reflect the new uses to be housed within the buildings and the character of their surroundings. c. Encourage infill development on vacant portions of the Redevelopment Plan Area to create a more continuous streetscape. d. The improvement of the pedestrian environment and traffic circulation within the Redevelopment Plan Area and surrounding neighborhood with the provision of new sidewalks, street trees and other pedestrian amenities within the existing street rights-of-way. e. To promote the principles of Smart Growth and sustainable economic and social development, including a variety of housing choices, providing pedestrian friendly streets and public rights-of-way, minimize automobile use by maximizing the appeal of mass transit, encourage reduced parking and shared use parking solutions, and creating a livable community with convenient access to commercial facilities.				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	Yes	Resilient NJ – Northeastern New Jersey, 2022 New Jersey Statewide Climate Change Resilience Strategy	County and State	NJDEP and Zoning Board of Adjustment
How has or will this be integrated with the HMP and how does this reduce risk? Resilient Northeastern NJ (Resilient NENJ) seeks to build climate resilience while improving quality of life for the 700,000 people who live in Jersey City, Newark, Hoboken, and Bayonne, as well as those who work and play in the region.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	Yes	East Newark Redevelopment Plan, 2017	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	Yes	Green Infrastructure Feasibility Study	Local	Passaic Valley Sewerage Commission
This feasibility study helps integrate viable actions aligned with the HMP.				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	City of East Newark Emergency Management Plan,2024	Local	East Newark OEM
How has or will this be integrated with the HMP and how does this reduce risk? Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years. Emergency Response Plan (updated annually).				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Strategic Recovery Planning Report	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

4.3.2 Development and Permitting Capability

Table 4-3 summarizes the capabilities of East Newark to oversee and track development.

Table 4-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	Yes N/A	Construction Department
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	County has a GIS Department that can support this effort.
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	Yes N/A	N/A
Describe the level of buildout in your jurisdiction.	N/A	N/A

4.3.3 Administrative and Technical Capability

Table 4-4 summarizes potential staff and personnel resources available to East Newark and their current responsibilities that contribute to hazard mitigation.

Table 4-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	The general purpose of the Planning Board is to provide for and guide the orderly growth and development of the community. This is accomplished primarily through the development of a Master Plan for the Town, the Zoning Bylaw, and the Planning Board's Rules and Regulations Governing Subdivision of Land.
Zoning Board of Adjustment	Yes	Incorporated into the operations of the Planning Board.
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	The primary functions of the Public Works Department are: • Coordinate garbage removal & recycling. • Bulk trash removal • Street cleaning • Snow removal & salting of roadways • Maintenance of all municipal properties • Graffiti removal. • Street sign repair, removal, or replacement • Maintenance of parks • Assist the municipality with all public events

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Construction/Building/Code Enforcement Department	Yes	The Building Department is responsible for the administration of zoning and property maintenance regulations as well as the issuance of building permits.
Emergency Management/Public Safety Department	Yes	The East Newark Police and Fire Departments provide services to the approximately 2,400 residents in the Borough of East Newark.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Catch basin clearing
Mutual aid agreements	Yes	Surrounding communities, County, State
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	Construction Dept.
Other	No	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Remington and Vernick Engineers
Engineers or professionals trained in building or infrastructure construction practices	Yes	Remington and Vernick Engineers
Planners or engineers with an understanding of natural hazards	Yes	Remington and Vernick Engineers
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	Yes	Dina Grilo/OEM Coordinator
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

4.3.4 Fiscal Capability

Table 4-5 summarizes financial resources available to East Newark.

Table 4-5. Fiscal Capabilities

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

4.3.5 Education and Outreach Capability

Table 4-6 summarizes the education and outreach resources available to East Newark.

Table 4-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	
Personnel skilled or trained in website development	Yes	Consultant
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	Yes	NWS, Harrison Weather
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Reverse 911
Natural disaster/safety programs in place for schools	Yes	School Operation Emergency Plan
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Mayor's Page, Facebook

4.3.6 Community Classifications

Table 4-7 summarizes classifications for community programs available to East Newark.

Table 4-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Sustainable Jersey	Yes	Registered	October 14, 2009
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

4.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 4-8 summarizes the adaptive capacity for each identified hazard of concern and the Borough'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 4-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Strong
Geological Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

4.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 4-1 is responsible for maintaining this information.

4.4.1 NFIP Statistics

Table 4-9 summarizes the NFIP policy and claim statistics for East Newark.

Table 4-9. East Newark NFIP Summary of Policy and Claim Statistics

# Policies	**0**
# Claims (Losses)	**1**
Total Loss Payments	**$22,487.84**
# Repetitive Loss Properties (NFIP definition)	**0**
# Repetitive Loss Properties (FMA definition)	**0**
# Severe Repetitive Loss Properties (NFIP definition)	**0**
# Severe Repetitive Loss Properties (FMA Definition)	**0**

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2024

4.4.2 Flood Vulnerability Summary

Table 4-10 provides a summary of the NFIP program in East Newark.

Table 4-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Passaic Ave and along the River
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

NFIP Topic	Comments
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Damage is 50% or more of value
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	None
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
NFIP Compliance	
What local department is responsible for floodplain management?	Construction Code
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	N/A
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Improvements are 50% or more of value
What are the barriers to running an effective NFIP program in the community, if any?	None
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	None
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	None
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 26
What is the date that your flood damage prevention ordinance was last amended?	August 2006
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning	County has a GIS Department that supports permit review in the hazard area

NFIP Topic	Comments
board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

4.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 4-11 through Table 4-13.

Table 4-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2019				
Total Permits	0	2	0	2
Permits within SFHA	0	0	0	0
2020				
Total Permits	0	0	1	1
Permits within SFHA	0	0	0	0
2021				
Total Permits	0	1	0	1
Permits within SFHA	0	0	0	0
2022				
Total Permits	0	4	0	4
Permits within SFHA	0	0	0	0
2023				
Total Permits	0	6	0	6
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 4-12. Recent Major Development and Infrastructure from 2017 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Tops Diner	Commercial	1	500 Passaic Avenue	-	Complete
Boulder	Residential	6	John Street & North 2nd	-	In Progress

** Only location-specific hazard zones or vulnerabilities identified.*

Table 4-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

4.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of East Newark's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

4.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Borough are shown in Figure 4-1 through Figure 4-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which East Newark has significant exposure. The maps show the location of potential new development, where available.

Figure 4-1. East Newark Hazard Area Extent and Location Map 1

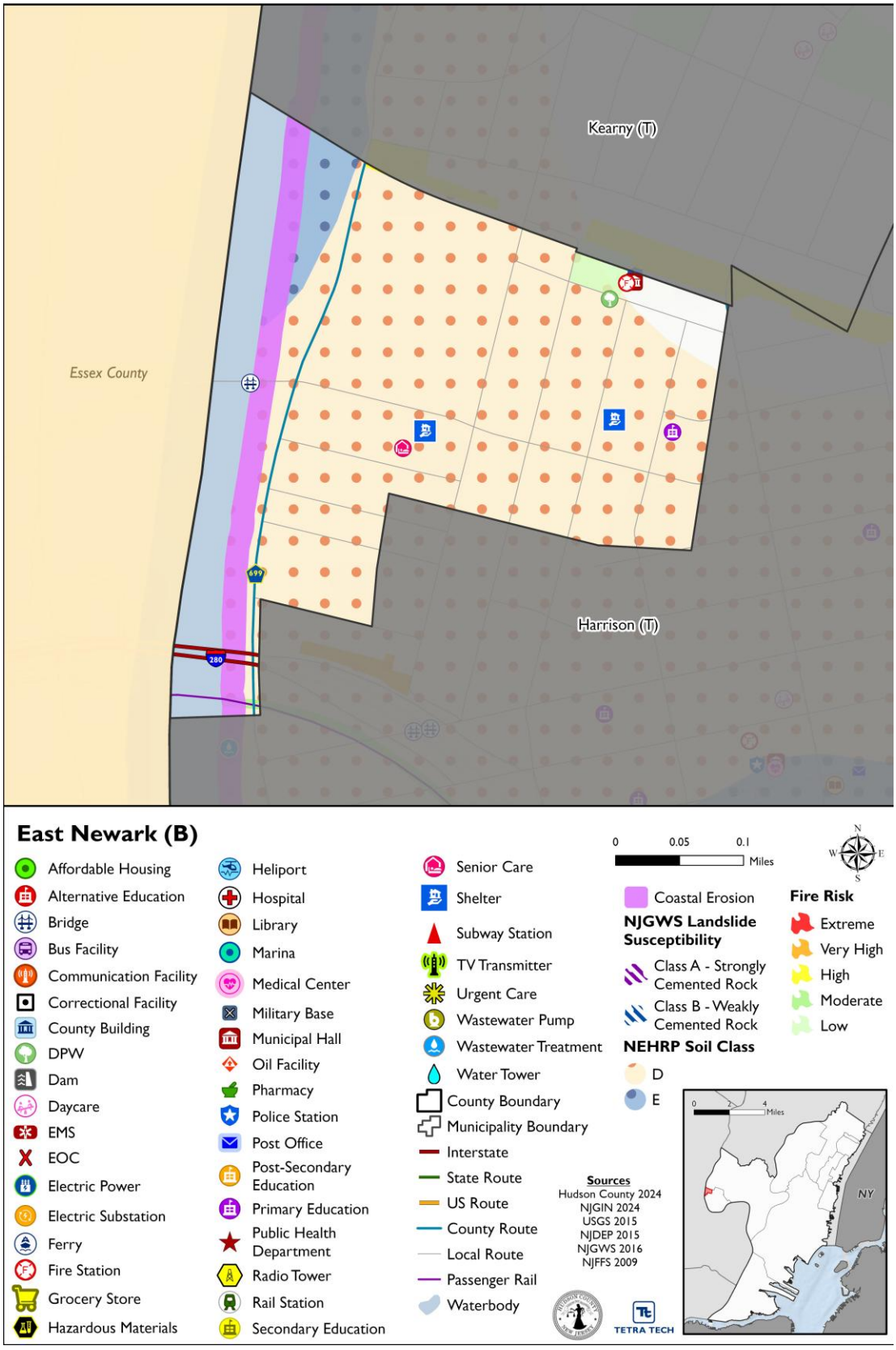


Figure 4-2. East Newark Hazard Area Extent and Location Map 2

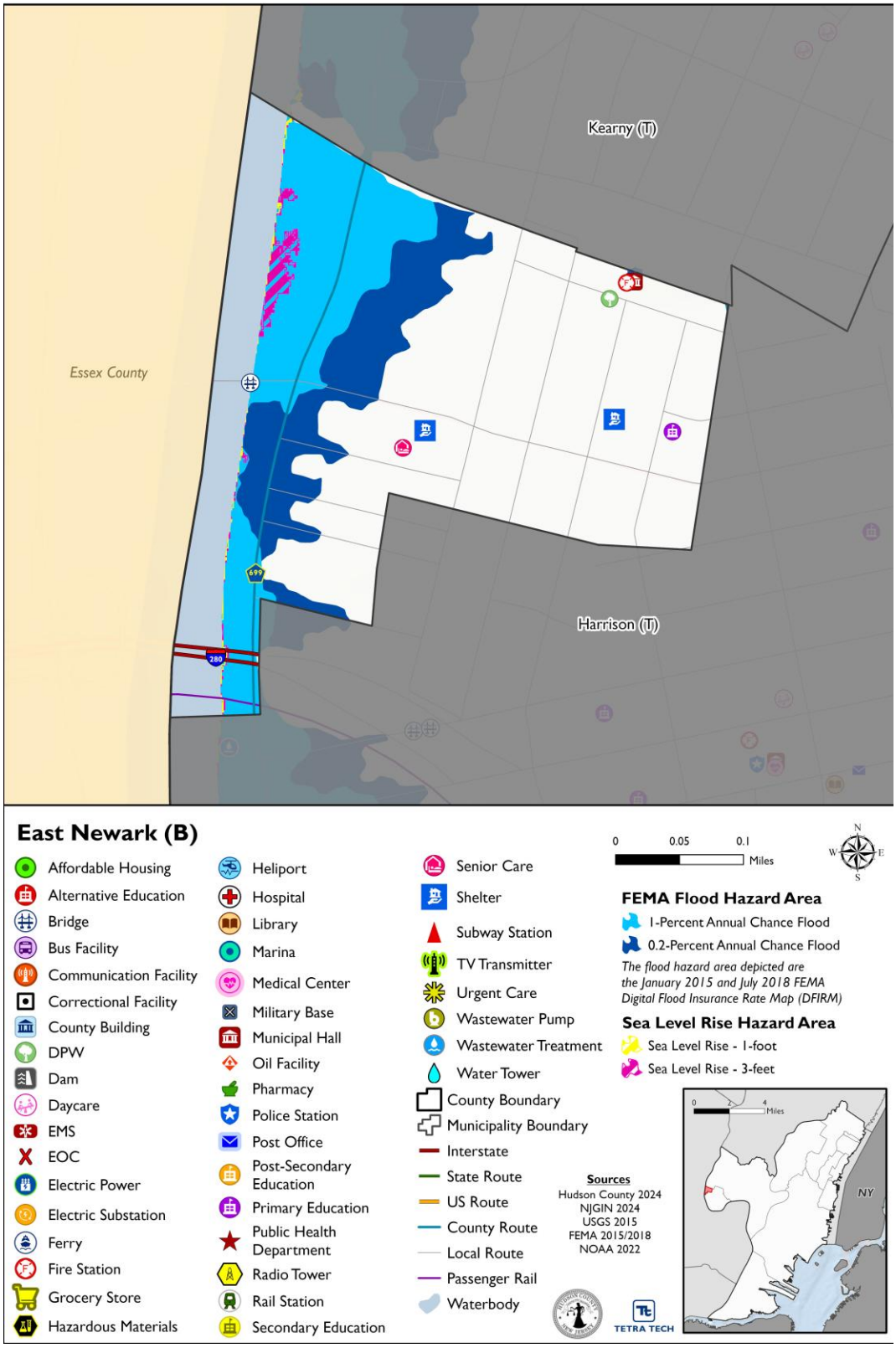
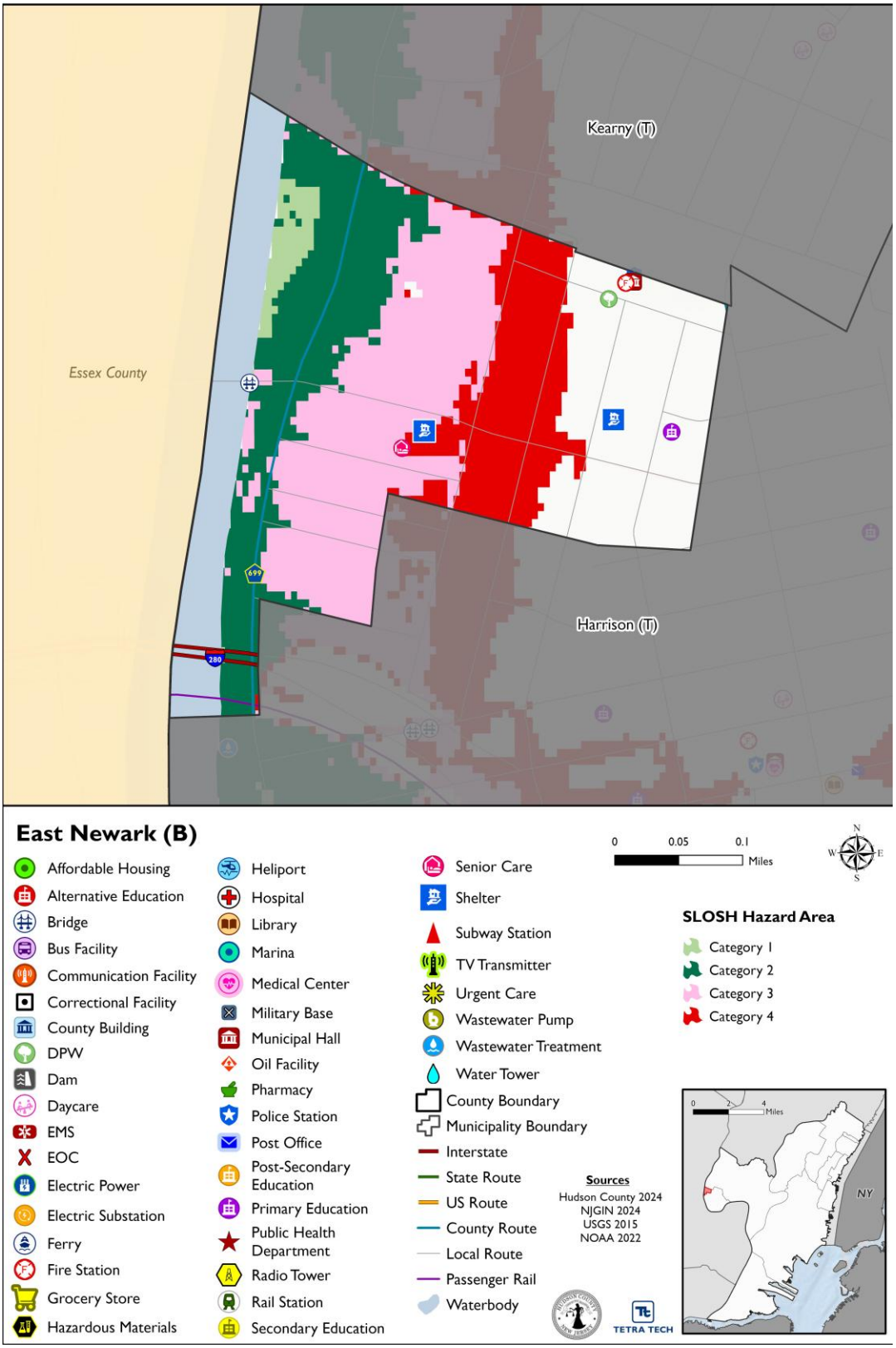


Figure 4-3. East Newark Hazard Area Extent and Location Map 3



4.6.2 Hazard Event History

The history of natural and non-natural hazard events in East Newark is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 4-14 provides details on loss and damage in East Newark during hazard events since the last hazard mitigation plan update.

Table 4-14. Hazard Event History in East Newark

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in East Newark
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The Borough did not experience any noted or documented damages or losses.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	The Borough abided by social distancing and work from home measures.
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The Borough did not experience any noted or documented damages or losses.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The Borough did not experience any noted or documented damages or losses.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	The Borough experienced local Flooding along Passaic Ave.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	The Borough experienced flooding along Passaic Ave between Central Ave and Johnston Ave.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in East Newark
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	The Borough did not experience any noted or documented damages or losses.

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

4.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for East Newark .

4.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. East Newark reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Borough indicated the following:

- None Identified

Table 4-15 shows East Newark's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 4-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Low
Drought	Medium
Extreme Temperatures	Low
Flood	Medium
Geological Hazards	High
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

4.6.3.2 CRITICAL FACILITIES

Table 4-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 4-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
Passaic River	Bridge	X	X

Source: Hudson County; HIFLD; NJGIN

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in East Newark:

- None Identified

4.6.4 Identified Issues

After review of East Newark's hazard event history, hazard rankings, hazard location, and current capabilities, East Newark identified the following vulnerabilities within the community:

- Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:
    - Determine where the damage occurred within the community and if the damaged structures are in an SFHA.
    - Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.
    - Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.
    - Require permits for floodplain development.

  The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.

- The Borough of East Newark currently has no water reserve and relies entirely on the water supply from East Orange Water. This dependency poses a significant risk during drought conditions, as the Borough lacks an independent water source.*
- The Borough of East Newark is a small community with limited resources, making it challenging to effectively prepare for and respond to geological hazard events.*
- The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Without this information, the Borough does not have a streamlined way to assess overall trends in damages/impacts to these properties to

determine properties of the highest risk of flood damage. It also does not track communications with property owners or the implementation or interest in potential mitigation efforts.

- Even though the Borough is a small community, it can effectively provide cooling stations to most residents, maintaining these stations for extended periods during prolonged heatwaves strains resources. The biggest issues are sustaining operational hours and staffing, especially when extreme temperatures persist for days or weeks.*
- The Borough experiences drainage problems due to its low elevation, which causes water to back up quickly during heavy rainfall, causing flooding.*
- The Borough faces challenges during severe weather events due to its limited access roads. As a small community, restricted mobility can delay emergency response, hinder evacuations, and increase the risk to residents during storms, flooding, or other hazardous conditions.*
- The Borough faces challenges in managing snow and ice during severe winter weather due to limited internal resources and funding. While shared services with the County help mitigate traffic issues, the Borough's ability to independently and quickly clear roads remains limited, especially during back-to-back storms or widespread icing.*
- The Borough's CSO system needs to be modified to reduce risk of overflow.
- The Borough's CSO system needs to be modified to reduce risk of overflow.
- The Borough is situated to provide emergency response facilities for the County.
- Numerous riverfront properties are flood prone.
- Several critical facilities lack backup power: Recreation center, Senior Center, New Borough Hall, School
- Borough to coordinate with the County and State CRS programs.

* This issue was identified as a specific area of concern based on resident response to the Strengths, Weaknesses, Obstacles, and Opportunities (SWOO) worksheet.

4.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

4.7.1 Past Mitigation Action Status

Table 4-17 indicates progress on the Borough's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

Table 4-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-East Newark-001	Increase capacity of CSO line	Flood, Severe Weather	Administration, Building and Construction	**Problem:** The Borough's CSO system needs to be modified to reduce risk of overflow. **Solution:** Increase the capacity of the CSO line to prevent overflow	1. In progress 2. Project is currently underway is the BASF remediation project that will convert impervious area to Green Infrastructure and also include sewer separation. To be completed in 2025.	1. Include 2. No Change 3. N/A
2020-East Newark-002	Install tank for stormwater storage	Flood	Administration, Building and Construction	**Problem**: The Borough's CSO system needs to be modified to reduce risk of overflow. **Solution:** Install a large storage tank for stormwater to prevent flooding and stormwater overflow.	1.In progress 2. Project is underway, the sewer separation that will be completed by the developer of the Thread Mill site. Project will be completed by 2028.	1. Include 2. Add progress update into solution statement. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-East Newark-003	Upgrade Borough facilities to allow for emergency response and sheltering/medical capabilities	All Hazards	Administration, Police	**Problem:** The Borough is situated to provide emergency response facilities for the County. **Solution:** Remodel the following facilities to allow for sheltering and medical response: Recreational Center, Senior Center, Old Borough Hall, New Borough Hall	1.In progress 2.Project is in process, it has been delayed due to funding and design development. As this is not a direct hazard mitigation action, the Borough will tailor this mitigation action for the facilities to be able to provide medical response through hazard events impacting the community.	1. Include 2. The Borough would like to focus on providing medical response for these facilities throughout any hazard events impacting the Borough of East Newark rather than focusing on disease outbreak; the Borough acknowledges this activity is not funded through HMA 3. N/A
2020-East Newark-004	Restore natural floodplain function along Passaic Avenue	Flood	Administration	**Problem:** Numerous riverfront properties are flood prone. **Solution:** Pursue buyout of flood prone properties and establish open space.	1.In progress 2.Borough continues to conduct outreach for flood-prone properties; project has been delayed due to not having grant writer/capacity to develop FEMA grant application, will explore contractual support.	1.Include 2. No Change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-East Newark-005	Backup generator for critical facilities	All hazards	Administration, Engineer	**Problem:** Several critical facilities lack backup power: Recreation center, Senior Center, New Borough Hall, School **Solution:** Purchase and install backup generators at critical facilities.	1.In progress 2.The Borough has sized the generators for each critical facility but have not finalized generator purchase due to funding constraints. The Borough will place a focus on this for the next two years	1. Include 2. Add progress update into solution statement. 3. N/A
2020-East Newark-006	Increase outreach capabilities of the Borough	All hazards	Administration	**Problem:** The website and other outreach options for the Borough are outdated. **Solution:** Update website and train staff on electronic communication methods	1. Complete 2. -	1. Discontinue 2. N/A 3. This action has been completed.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-East Newark-007	Participation in the CRS and scheduling the CAV.	Flood	Administration, Engineer, Hudson County OEM	**Problem:** Borough to coordinate with the County and State CRS programs. **Solution:** Reduce the number of repeatedly-loss properties and lower insurance rates.	1.In Progress 2.Borough continues working with the County and State CRS program to identify measures to reduce RL and SRL properties for the Borough.	1. Include 2. Borough continues working towards this action. 3. N/A

4.7.2 Additional Mitigation Efforts

In addition to the completed mitigation actions from the previous HMP, East Newark identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

4.7.3 Proposed Hazard Mitigation Actions for the HMP Update

East Newark participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that East Newark would like to pursue in the future to reduce the effects of hazards. The actions 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 Borough priorities.

Table 4-18 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 4-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 4-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X	X			X	X				X
Drought	X	X			X	X				X
Extreme Temperatures	X	X			X	X				X
Flood	X	X	X	X	X	X	X	X	X	X
Geological Hazards	X	X		X	X	X	X			X
Severe Weather	X	X	X		X	X		X	X	X
Severe Winter Weather	X	X			X	X				X
Wildfire	X	X			X	X				X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 4-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-EastNewark-001	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	**13**	**High**
2025-EastNewark-002	Water Reserve	1	0	1	1	1	0	1	1	1	0	1	1	1	0	**10**	**Medium**
2025-EastNewark-003	Geological Hazard Preparedness	1	1	1	1	1	0	0	1	1	0	0	1	0	0	**8**	**Medium**
2025-EastNewark-004	Flood Mitigation Interest	1	1	1	1	1	1	0	1	1	0	1	1	1	1	**12**	**High**
2025-EastNewark-005	Support for Cooling Station	1	0	1	1	1	0	0	1	1	0	1	1	1	1	**10**	**Medium**
2025-EastNewark-006	Drainage Issue	1	1	1	1	1	0	1	0	1	1	1	1	1	0	**11**	**High**
2025-EastNewark-007	Limited Access Roads	1	0	1	1	1	0	0	1	1	0	1	1	1	0	**9**	**Medium**
2025-EastNewark-008	Enhancing Snow and Ice Removal Capabilities	0	1	1	1	1	0	1	1	1	0	1	1	1	0	**10**	**Medium**
2025-EastNewark-009	Increase Capacity of CSO Line	0	1	0	1	1	0	1	1	1	1	1	1	1	1	**11**	**High**
2025-EastNewark-010	Tank for Stormwater Storage	0	1	0	1	1	0	1	1	1	0	1	1	1	1	**10**	**Medium**
2025-EastNewark-011	Emergency Response and Sheltering/Medical Capabilities	1	0	1	1	1	0	0	1	1	1	1	1	1	1	**11**	**High**
2025-EastNewark-012	Restore Natural Floodplain Function	0	1	1	1	0	0	1	1	1	1	1	1	1	1	**11**	**High**

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-EastNewark-013	Generators for Critical Facilities	1	1	1	1	1	0	1	1	1	1	1	1	1	1	**13**	**High**
2025-EastNewark-014	CRS Participation and CAV Scheduling	0	1	1	1	1	0	1	0	1	0	1	1	0	1	**9**	**Medium**

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

Action 2025-EastNewark-001. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	Borough OEM, Borough DPW
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
Description of the Solution:	The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 *Developing a Substantial Damage Management Plan* (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	3, 6
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
Impact on Capabilities:	This action improves disaster recovery capabilities.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
Mitigation Category	Local Plans and Regulations
CRS Category	Emergency Services, Preventative Measure
Priority	High

Alternatives	Action	Evaluation
	No Action	-
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements

Action 2025-EastNewark-002. Water Reserve

Lead Agency:	Administration
Supporting Agencies:	East Orange Water
Hazards of Concern:	Drought
Description of the Problem:	The Borough of East Newark currently has no water reserve and relies entirely on the water supply from East Orange Water. This dependency poses a significant risk during drought conditions, as the Borough lacks an independent water source
Description of the Solution:	Develop a strategic plan to establish a water reserve for the Borough of East Newark. This plan will include the construction of water storage facilities and the integration of emergency water supply protocols with County resources.
Estimated Cost:	High
Potential Funding Sources:	HMGP, Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	1,6,7
Benefits:	Increased resilience to drought conditions, improved water management and conservation, and enhanced public safety and health.
Impact on Socially Vulnerable Populations:	Positive impact by ensuring reliable access to water during droughts, reducing the risk of water shortages for vulnerable populations.
Impact on Future Development:	Facilitates sustainable development by ensuring a stable water supply, which is crucial for residential, commercial, and industrial growth.
Impact on Critical Facilities/Lifelines:	Ensures that critical facilities such as hospitals, schools, and emergency services have a reliable water supply during drought conditions.
Impact on Capabilities:	Strengthens the Borough's ability to manage water resources and respond effectively to drought emergencies.
Climate Change Considerations:	Addresses the increased risk of droughts due to climate change by establishing a proactive water management strategy.
Mitigation Category	Structural and Infrastructure Projects
CRS Category	Preventative Measures
Priority	Medium

Alternatives	**Action**	**Evaluation**
	No Action	-
	Implement water conservation programs	Promotes sustainable water use, but does not address the lack of water reserve
	Desalination Plant - Independent water source	Higher costs and complex

Action 2025-EastNewark-003. Geological Hazards Preparedness

Lead Agency:	Administration
Supporting Agencies:	-
Hazards of Concern:	Geological Hazards
Description of the Problem:	The Borough of East Newark is a small community with limited resources, making it challenging to effectively prepare for and respond to geological hazard events.
Description of the Solution:	Develop a comprehensive geological hazard preparedness and response plan that leverages community outreach, notification systems, and public safety resources. The plan will include applying for grants and requesting additional resources from the County level to enhance the Borough's capabilities.
Estimated Cost:	High
Potential Funding Sources:	Municipal Budget
Implementation Timeline:	1-5 Years
Goals Met:	1,2,5,6,7
Benefits:	Increased community awareness and preparedness for earthquakes, improved coordination and resource allocation during emergencies, and enhanced public safety and protection of property.
Impact on Socially Vulnerable Populations:	This action will ensure that all community members, including socially vulnerable populations, are informed and prepared for earthquake events.
Impact on Future Development:	Encourages the incorporation of earthquake-resistant design and construction practices in future development projects.
Impact on Critical Facilities/Lifelines:	Ensures that critical facilities such as hospitals, schools, and emergency services are prepared and can continue to operate during and after an earthquake
Impact on Capabilities:	Strengthens the Borough's overall emergency management capabilities and enhances coordination with County and State resources.
Climate Change Considerations:	While earthquakes are not directly related to climate change, the preparedness plan will consider the potential for compounded impacts from other climate-related hazards.
Mitigation Category	Local Plans and Regulations, Education and Awareness Programs
CRS Category	Public Information, Emergency Services
Priority	High

Alternatives

Action	Evaluation
No Action	-
Mutual Aid Agreements	May leave the Borough vulnerable if neighboring areas are also affected by earthquakes
Drills and Simulations for the community	Improves readiness but does not address the need for additional resources and funding

Action 2025-EastNewark-004. Flood Mitigation Interest

Lead Agency:	Floodplain Administrator
Supporting Agencies:	Borough Administration
Hazards of Concern:	Flood
Description of the Problem:	The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Without this information, the Borough does not have a streamlined way to assess overall trends in damages/impacts to these properties to determine properties of the highest risk of flood damage. It also does not track communications with property owners or the implementation or interest in potential mitigation efforts.
Description of the Solution:	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.
Estimated Cost:	Staff time, Low
Potential Funding Sources:	Municipal Budget
Implementation Timeline:	Within 2 years
Goals Met:	2,5
Benefits:	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.
Impact on Socially Vulnerable Populations:	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.
Impact on Future Development:	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.
Impact on Critical Facilities/Lifelines:	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.
Impact on Capabilities:	This action will create a new Borough capability, while enhancing its current NFIP 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. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	High

Alternatives	Action	Evaluation
	No action	Current problem remains
	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application
	Wait for information from the State on flood-damaged properties	May be a delay in notice

Action 2025-EastNewark-005. Support for Cooling Stations

Lead Agency:	Administration
Supporting Agencies:	Borough Public Works, County OEM
Hazards of Concern:	Extreme Temperature
Description of the Problem:	Even though the Borough is a small community, it can effectively provide cooling stations to most residents, maintaining these stations for extended periods during prolonged heatwaves strains resources. The biggest issues are sustaining operational hours and staffing, especially when extreme temperatures persist for days or weeks.
Description of the Solution:	To help keep cooling stations open during long periods of extreme heat, the Borough Administration can take several simple but effective steps. First, they can start a volunteer program to train local residents to help run the stations. This would reduce the need for a large professional staff. To keep things running smoothly, volunteers and staff can work in rotating shifts, and the Borough can offer small rewards or public recognition to thank them for their time. The Borough can also apply for grants and emergency funds from the County to help pay for electricity, supplies, and staff support. Partnering with local groups like churches, schools, and nonprofits can help share the work of hosting and staffing the stations. To make sure the stations can stay open even during power outages, the Borough Public Works will invest in generators for backup power.
Estimated Cost:	Medium
Potential Funding Sources:	HMGP, Municipal Budget
Implementation Timeline:	1-5 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:	This action results in protection of a critical facility that could support future development.
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:	This action ensures continuity of operations to maintain capabilities.
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services
Priority	Medium

Alternatives	Action	Evaluation
	No Action	-
	Microgrid	Costly and difficult to implement.
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-EastNewark-006. Drainage Issues

Lead Agency:	Borough Public Works
Supporting Agencies:	Borough Engineer, Administration
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	The Borough experiences drainage problems due to its low elevation, which causes water to back up quickly during heavy rainfall, causing flooding.
Description of the Solution:	To address the Borough's drainage problems caused by its low elevation and frequent water backups, the Borough Public Works, with assistance from Engineering and Administration, will conduct a thorough evaluation of the existing stormwater infrastructure. This assessment will focus on identifying areas where drainage is inadequate, especially along major roadways, emergency access routes, and locations with a history of repeated flooding. Based on the findings, the Borough will prioritize improvements such as enlarging stormwater pipes, adding new drainage inlets, and enhancing flow capacity. As upgrades are implemented, DPW will closely monitor the performance of these improvements during storm events to ensure they are effective. If needed, additional measures will be taken to further reduce flooding and improve overall drainage throughout the community.
Estimated Cost:	High
Potential Funding Sources:	HMGP, Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	2,6
Benefits:	Reduction in flood risk, stormwater flood damage, maintains emergency access
Impact on Socially Vulnerable Populations:	This action will assist socially vulnerable populations whose properties are impacted by flooding along flood-prone roads.
Impact on Future Development:	Future development in the impacted area will be less likely to be flooded.
Impact on Critical Facilities/Lifelines:	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.
Impact on Capabilities:	Not Applicable
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.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Preventative Measures, Property Protection
Priority	High

Alternatives

Action	Evaluation
No Action	-
Relocate all flood-prone road system	Not feasible
Raise all flood prone roads	Cost prohibitive

Action 2025-EastNewark-007. Limited Access Roads

Lead Agency:	Administration	
Supporting Agencies:	Public Works	
Hazards of Concern:	Severe Weather	
Description of the Problem:	The Borough faces challenges during severe weather events due to its limited access roads. As a small community, restricted mobility can delay emergency response, hinder evacuations, and increase the risk to residents during storms, flooding, or other hazardous conditions.	
Description of the Solution:	To improve mobility and safety during severe weather, the Borough will pursue federal funding opportunities aimed at enhancing transportation infrastructure. This may include widening key access roads, creating alternate routes, and improving signage and traffic control systems. These upgrades will help ensure that emergency services can reach residents quickly and that evacuations can be carried out more efficiently. The Borough will work with County and State partners to identify priority areas and submit grant applications for infrastructure improvements that support resilience and public safety.	
Estimated Cost:	High	
Potential Funding Sources:	HMGP, Municipal Budget	
Implementation Timeline:	1-5 years	
Goals Met:	6	
Benefits:	Improving road access during severe weather will lead to faster emergency response times, safer evacuation and travel conditions, reduced risk of resident isolation, and long-term resilience of the community's infrastructure.	
Impact on Socially Vulnerable Populations:	Improved access routes ensures that the socially vulnerable are not cut off during emergencies, helping to ensure equitable safety and mobility.	
Impact on Future Development:	Supports smart growth by encouraging infrastructure that can withstand severe weather, and may influence future zoning and development to prioritize access and resilience.	
Impact on Critical Facilities/Lifelines:	Enhances access to hospitals, fire stations, and shelters, ensuring that lifeline services remain reachable during and after severe weather events.	
Impact on Capabilities:	Strengthens the Borough's transportation and emergency management capabilities, improving coordination and response during disasters.	
Climate Change Considerations:	As severe weather events become more frequent and intense due to climate change, improving road access and mobility is a proactive adaptation measure that reduces long-term risk and enhances community safety.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Preventative Measures, Emergency Services	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Relying Solely on Emergency Detour Plans	Only effective if multiple viable routes are available
	Encouraging Shelter in Place	Not always a long-term or safe solution

Action 2025-EastNewark-008. Enhancing Snow and Ice Removal Capabilities

Lead Agency:	DPW	
Supporting Agencies:	Administration, County OEM	
Hazards of Concern:	Severe Winter Weather	
Description of the Problem:	The Borough faces challenges in managing snow and ice during severe winter weather due to limited internal resources and funding. While shared services with the County help mitigate traffic issues, the Borough's ability to independently and quickly clear roads remains limited, especially during back-to-back storms or widespread icing.	
Description of the Solution:	To improve winter storm response, the Borough will work to increase funding and staffing within DPW. This includes hiring additional personnel, acquiring more snow removal equipment, and investing in salt and de-icing materials. The Borough will continue leveraging shared services with the County while also applying for state and federal grants to support local capacity building. Priority will be given to high-traffic roads, emergency routes, and areas with recurring winter hazards. As improvements are made, DPW will monitor road conditions and response times to evaluate effectiveness and identify further needs.	
Estimated Cost:	High	
Potential Funding Sources:	HMGP, Municipal Budget	
Implementation Timeline:	1-5 years	
Goals Met:	2, 6	
Benefits:	Investing in enhanced winter weather response will lead to improved public safety, fewer accidents and delays, greater self-reliance during emergencies, and long-term cost savings through proactive planning.	
Impact on Socially Vulnerable Populations:	Ensures that the socially vulnerable populations have safe access to transportation and emergency services during winter events.	
Impact on Future Development:	Supports resilient infrastructure planning and may influence future development to consider winter weather access and road design.	
Impact on Critical Facilities/Lifelines:	Improves access to hospitals, fire stations, and shelters, ensuring continuity of essential services during snow and ice events.	
Impact on Capabilities:	Enhances the Borough's operational readiness and response capacity for winter weather emergencies.	
Climate Change Considerations:	As climate change increases the unpredictability of winter storms, this action builds adaptive capacity to respond to more frequent or intense snow and ice events.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Preventative Measures, Emergency Services	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Private Snow Removal Services	Delays in response time
	Residents to Self-Clear	Not a safe option

Action 2025-EastNewark-009. Increase Capacity of CSO Line

Lead Agency:	Administration
Supporting Agencies:	Building and Construction
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	The Borough's CSO system needs to be modified to reduce risk of overflow.
Description of the Solution:	Increase the capacity of the CSO line to prevent overflow. A key project currently underway is the BASF remediation project, which will convert impervious surfaces to Green Infrastructure and include sewer separation. This project is expected to be completed in 2025 and will significantly contribute to reducing CSO events by enhancing stormwater management and increasing system capacity.
Estimated Cost:	High
Potential Funding Sources:	HMGP, Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	2,6
Benefits:	Enhances the sewer system's ability to manage stormwater, reducing overflow incidents.
Impact on Socially Vulnerable Populations:	Ensures that infrastructure improvements benefit communities that have historically been underserved
Impact on Future Development:	Improved infrastructure can accommodate future population and development increases.
Impact on Critical Facilities/Lifelines:	Reduces flood risk to hospitals, emergency services, and transportation networks.
Impact on Capabilities:	Involves coordination between environmental, planning, and public works departments.
Climate Change Considerations:	Builds resilience into infrastructure to handle long-term climate variability.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Structural Flood Control Projects
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Temporary Storage Tanks	High cost, requires regular maintenance
	Increase street sweeping and drain cleaning	Reactive, not preventive

Action 2025-EastNewark-010. Tank for Stormwater Storage

Lead Agency:	Administration	
Supporting Agencies:	Building and Construction	
Hazards of Concern:	Flood	
Description of the Problem:	The Borough's CSO system needs to be modified to reduce risk of overflow.	
Description of the Solution:	Install a large storage tank for stormwater to prevent flooding and stormwater overflow. The sewer separation will be completed by the developer of the Thread Mill site. This project, expected to be completed by 2028, will enhance stormwater management in the area and complement the storage tank by reducing the volume of combined sewer flow during storm events.	
Estimated Cost:	High	
Potential Funding Sources:	HMGP	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6	
Benefits:	Helps prevent flooding and reduces stormwater overflow.	
Impact on Socially Vulnerable Populations:	Reduces flood risk in areas where vulnerable populations may live.	
Impact on Future Development:	Supports new development by improving stormwater infrastructure.	
Impact on Critical Facilities/Lifelines:	Protects nearby roads, utilities, and emergency services from flooding.	
Impact on Capabilities:	Improves the Borough's ability to manage heavy rainfall and storm events.	
Climate Change Considerations:	Prepares the area for more intense storms and increased rainfall due to climate change.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Relying on natural drainage and vegetation	Space limitations, slow implementation
	Expand existing drainage pipes	Doesn't address overflow

Action 2025-EastNewark-011. Emergency Response and Sheltering/Medical Capabilities

Lead Agency:	Administration
Supporting Agencies:	Borough Police
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	The Borough is situated to provide emergency response facilities for the County.
Description of the Solution:	Remodel the following facilities—Recreational Center, Senior Center, Old Borough Hall, and New Borough Hall—to support medical response operations during any hazard events impacting the Borough of East Newark. Rather than focusing solely on disease outbreak preparedness, the Borough aims to ensure these facilities are equipped to provide medical support and sheltering capabilities across a wide range of emergencies.
Estimated Cost:	High
Potential Funding Sources:	Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	1,6,7
Benefits:	Retrofitting of emergency facilities for sheltering, medical response established for regional use.
Impact on Socially Vulnerable Populations:	Providing a centralized location for prophylaxis, sheltering and medical treatment allows and opportunity for those with limited public health access to obtain needed services.
Impact on Future Development:	By providing additional resources for health and medical treatment, residents will feel more secure in their choice to establish life and property within the community.
Impact on Critical Facilities/Lifelines:	Retrofitting medical facilities ensures that all members of the community can receive adequate medical care in the event of a personal or community-wide emergency.
Impact on Capabilities:	Remodeling facilities to provide emergency response equipment will increase the ability of the community to assist outside agencies and respond internally to large-scale casualty events.
Climate Change Considerations:	N/A
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection, Emergency Services
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Temporary Medical Tents or Mobile Units	Less resilient to extreme weather conditions. Limited capacity.
	Relying on medical facilities	Potential limited accessibility during emergencies, and overburdened systems.

Action 2025-EastNewark-012. Restore Natural Floodplain Function

Lead Agency:	Administration
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Numerous riverfront properties are flood prone.
Description of the Solution:	Pursue the buyout of flood-prone properties and establish open space. The Borough continues outreach efforts to engage owners of flood-prone properties. However, the project has experienced delays due to limited capacity and the absence of a dedicated grant writer to develop a FEMA grant application. To address this, the Borough is exploring options for contractual support to advance the grant development process.
Estimated Cost:	High
Potential Funding Sources:	HMGP, FMA
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,7
Benefits:	Reduces long-term flood risk by removing structures from high-risk areas.
Impact on Socially Vulnerable Populations:	This action includes outreach to ensure vulnerable populations are informed, supported, and not displaced without adequate assistance or alternatives.
Impact on Future Development:	Prevents future construction in flood-prone zones, reducing exposure.
Impact on Critical Facilities/Lifelines:	Not applicable
Impact on Capabilities:	Implementing buyouts strengthens the Borough's ability to plan and manage land use in a way that reduces risk and promotes sustainability.
Climate Change Considerations:	Establishing open space provides natural flood mitigation and helps buffer future climate impacts.
Mitigation Category	Structure and Infrastructure Project, Natural Systems Protection
CRS Category	Property Protection, Natural Resource protection
Priority	High

Alternatives

Action	Evaluation
No Action	-
Construct floodwalls or levees around area	Extremely costly
Elevate existing structures	Does not eliminate risk

Action 2025-EastNewark-013. Generators for Critical Facilities

Lead Agency:	Administration	
Supporting Agencies:	Engineering	
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Several critical facilities lack backup power: Recreation center, Senior Center, New Borough Hall, School	
Description of the Solution:	The Borough aims to enhance the resilience of its critical facilities by purchasing and installing backup generators to ensure continuity of operations during power outages. The Borough has completed the sizing of generators for each critical facility, however, the project has not yet progressed to the purchase and installation phase due to funding constraints. The Borough has committed to prioritizing the acquisition and installation of these generators over the next two years.	
Estimated Cost:	High	
Potential Funding Sources:	HMGP, Municipal Budget	
Implementation Timeline:	1-5 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:	This action results in protection of a critical facility that could support future development.	
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:	This action ensures continuity of operations to maintain capabilities.	
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Microgrid	Costly and difficult to implement.
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-EastNewark-014. CRS Participation and CAV Scheduling

Lead Agency:	Administration	
Supporting Agencies:	Engineering, Hudson County OEM	
Hazards of Concern:	Flood	
Description of the Problem:	Borough to coordinate with the County and State CRS programs.	
Description of the Solution:	The Borough will continue to work towards participating in FEMA's CRS and scheduling a CAV as part of its ongoing efforts to reduce flood risk and improve floodplain management. In coordination with County and State partners, the Borough will identify and implement strategies to address Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties. These actions aim to enhance the Borough's CRS standing, which can lead to lower flood insurance premiums for residents while strengthening overall community resilience to flooding.	
Estimated Cost:	Low	
Potential Funding Sources:	HMGP, Municipal Budget	
Implementation Timeline:	1-5 years	
Goals Met:	2,3	
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 Borough'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	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Adopt aspects of the CRS program into the floodplain management program	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.

5. TOWN OF GUTTENBERG

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Town of Guttenberg with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Guttenberg, describes who participated in the planning process, assesses Guttenberg's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

5.1 Hazard Mitigation Planning Team

The Town of Guttenberg identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Town departments. The Office of Emergency Management represented the community on the Hudson County HMP Planning Partnership and Steering Committee, and supported the local planning process 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.

Table 5-1 summarizes Town officials who participated in the development of the annex and in what capacity. Additional documentation of the Town's planning activities through Planning Partnership meetings is included in Volume I.

Table 5-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Richard Delafuente, OEM Coordinator Address: 6808 Park Avenue, Guttenberg, NJ 07093 Phone Number: 201-295-1147 Email: rdelafuente@myguttenberg.com	Name/Title: Dr. Cosmo A Cirillo, RMC, Deputy OEM Coordinator Address: 6808 Park Avenue, Guttenberg, NJ 07093 Phone Number: Email: ccirillo@myguttenberg.com
National Flood Insurance Program Floodplain Administrator	
Name/Title: Frank Pelaez Address: 6808 Park Avenue, Guttenberg, NJ 07093 Phone Number: 201-914-8545 Email: fpelaez@myguttenberg.com	
Additional Contributors	
Name/Title: Vahane Costanian, Town Engineer and Lead Planner Method of Participation: Participated in the plan	
Name/Title: Hector Hernandez, Superintendent Method of Participation: Participated in the plan	
Name/Title: Nick Lordo, Construction Official/ Zoning Official Method of Participation: Participated in the plan	

5.2 Community Profile

5.2.1 Brief History

Founded in 1859, the town was originally known for its many brewers and is named after the inventor of the printing press. Post WW II, the town was the site of many embroidery factories, which contributed to making Hudson County the Embroidery Capital of the World. Today the town is predominantly residential.

5.2.2 Location

The Town of Guttenberg is located in northern Hudson County; it was officially formed as a town on March 9, 1859, from parts of North Bergen Township. Initially not fully independent, it became part of Union Township in 1861 and finally gained full independence on April 1, 1878. The Town is approximately 0.2 square miles, with four blocks north and south and 12 blocks east and west. The most eastern portion of the Town is located on the banks of the Hudson River. The Town is one mile west of New York City across the Hudson River.

Named after Johannes Gutenberg, the inventor of the printing press, the town began as a modest settlement, largely influenced by German immigrants. Over time, it transformed from a community of row houses and light industry into one of the most densely populated municipalities in the United States. Despite being only four blocks wide, Guttenberg is known for its vibrant urban character and iconic residential high-rises like the Galaxy Towers.

5.2.3 Governing Body Format

The governing body of the town consists of the mayor, and five council members. This governing body will be responsible for the adoption and implementation of this plan.

5.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for Guttenberg was 12,017, a 2.4 percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 6.7 percent of the population is 5 years of age or younger, 13.5 percent is 65 years of age or older, 16.8 percent is non-English speaking, 11.1 percent is below the poverty threshold, and 15.6 percent is considered disabled.

5.2.4.1 ALICE in Hudson County

ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. While conditions have improved for some households,

many continue to struggle, especially as wages fail to keep pace with the rising cost of household essentials (housing, child care, food, transportation, health care, and a basic smartphone plan). Households below the ALICE Threshold – ALICE households plus those in poverty – can't afford the essentials.

According to 2021 Point-in-Time-Data from ALICE, 24 percent of the 292,000 households in Hudson County are ALICE households (compared to the state average of 26 percent). The median household income in Hudson is $80,329, and the County sees a labor force participation rate of 69 percent. Hudson County faces low household income compared to the state average of $89,296 and while the County does carry a 3percent higher labor participation rate compared to state numbers, 15 percent of Hudson households live in poverty.

5.3 Jurisdictional Capability Assessment and Integration

Guttenberg performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

5.3.1 Planning and Regulatory Capability and Integration

Table 5-2 summarizes the planning and regulatory tools that are available to Guttenberg.

Table 5-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	Chapter 11 Building and Housing	State and Local	Code Enforcement
How has or will this be integrated with the HMP and how does this reduce risk? State mandated on a local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14. There is hereby established in the Town, a State Uniform Construction Code enforcing agency to be known as Building Department, consisting of a Construction Official, Building Subcode Official, Plumbing Subcode Official, Electrical Subcode Official, Fire Protection Subcode Official, and such other subcode officials for such additional subcodes as the Commissioner of the Department of Community Affairs, State of New Jersey, shall thereafter adopt as part of the State Uniform Construction Code. The Construction Official shall be the chief administrator of the enforcing agency, and the Mayor and Board of Council shall make such appointments, and issue such supervisory or jurisdictional regulations as required to implement appropriate State laws, codes and regulations.				
Zoning/Land Use Code	Yes	Chapter 28 Zoning	Local	Code Enforcement
How has or will this be integrated with the HMP and how does this reduce risk? Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49. Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan. This chapter is designed to accomplish the following objectives related to hazard mitigation: a. To promote, protect and facilitate the public health, safety and general welfare, and to make provisions for adequate community facilities and utilities; b. To promote orderly development; c. To prevent loss of life, health or property from fire, panic, floods and other dangers; d. To provide adequate light and air; e. To prevent the overcrowding of land; f. To avoid undue concentration of population; g. To lessen congestion in the streets and to determine the proper location and function streets; h. To facilitate the adequate provision of vehicle parking and loadings, transportation systems, water, sewerage, schools, parks and other public requirements; i. To regulate the intensity of the use of land; j. To prohibit the incompatible use of land; k. To attain the Municipality's developments as outlined in the Municipality's Master Plan; l. To conserve, maintain and strengthen the Municipality's tax base.				
Subdivision Code	Yes	Chapter 27 Land Subdivision and Site Review	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of this chapter shall be to provide rules, regulations, and standards to guide land subdivision and site plan development in the Town in order to promote the public health, safety, convenience and general welfare of the municipality.				
Site Plan Code	Yes	Chapter 27 Land Subdivision and Site Review	Local and County	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of this chapter shall be to provide rules, regulations, and standards to guide land subdivision and site plan development in the Town in order to promote the public health, safety, convenience and general welfare of the municipality.				
Stormwater Management Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?
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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

Growth Management	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Environmental Protection Ordinance(s)	Yes	Chapter 22, Waterfront Regulations	Local	Department of Public Works
How has or will this be integrated with the HMP and how does this reduce risk? The rules that are utilized by the NJDEP and other environmental agencies are codified at Title 7 of the NJ Municipal Administrative Code. Chapter 22 Waterfront Regulations of the municipal code establishes methods for waterfront cleanup and prevention of floating drift or debris.				
Flood Damage Prevention Ordinance	Yes	Chapter 21 Flood Damage Prevention	Federal, State, County and Local	Construction Code Official
How has or will this be integrated with the HMP and how does this reduce risk? The purposes and objectives of these regulations are to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific flood hazard areas through the establishment of comprehensive regulations for management of flood hazard areas, designed to: 1. Protect human life and health. 2. Prevent unnecessary disruption of commerce, access, and public service during times of flooding. 3. Manage the alteration of natural floodplains, stream channels and shorelines; 4. Manage filling, grading, dredging and other development which may increase flood damage or erosion potential. 5. Prevent or regulate the construction of flood barriers which will divert floodwater or increase flood hazards. 6. Contribute to improved construction techniques in the floodplain. 7. Minimize damage to public and private facilities and utilities. 8. Help maintain a stable tax base by providing for the sound use and development of flood hazard areas. 9. Minimize the need for rescue and relief efforts associated with flooding. 10. Ensure that property owners, occupants, and potential owners are aware of property located in flood hazard areas. 11. Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events. 12. Meet the requirements of the National Flood Insurance Program for community participation set forth in Title 44 Code of Federal Regulations, Section 59.22. The ordinance follows the model Code Coordinated Ordinance.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	Reexamination Report and Land Use Plan Element Amendment (6/15/2009)	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? Chapter 2-54 of the municipal code, Reexamination Report and Land Use Plan Element Amendment, June 15, 2009. Administered by the Planning Board.				
Capital Improvement Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Emergency Operations Plan	Local	Department of Public Safety
How has or will this be integrated with the HMP and how does this reduce risk? Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years.				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

5.3.2 Development and Permitting Capability

Table 5-3 summarizes the capabilities of Guttenberg to oversee and track development.

Table 5-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	Yes	Building Department
Are permits tracked by hazard area? (For example, floodplain development permits.)	-	-
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	No	-
Describe the level of buildout in your jurisdiction.	N/A	The Town is fully built out.

5.3.3 Administrative and Technical Capability

Table 5-4 summarizes potential staff and personnel resources available to Guttenberg and their current responsibilities that contribute to hazard mitigation.

Table 5-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	The Town of Guttenburg has a Joint Planning/Zoning Board.
Zoning Board of Adjustment	Yes	The Town of Guttenburg has a Joint Planning/Zoning Board.
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	The Department of Public Works is responsible for maintenance and improvements of the Town and the Town's parks. DPW's primary functions include • Street cleaning • Snow removal & salting of roadways • Maintenance of all municipal properties • Street sign repair, removal or replacement • Maintenance of parks
Construction/Building/Code Enforcement Department	Yes	Building Department
Emergency Management/Public Safety Department	Yes	Office of Emergency Management
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	See Public Works
Mutual aid agreements	Yes	County and neighboring municipalities
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	-	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Outside Contractor, Boswell Engineering
Engineers or professionals trained in building or infrastructure construction practices	Yes	Outside Contractor, Boswell Engineering
Planners or engineers with an understanding of natural hazards	Yes	Outside Contractor, Boswell Engineering
Staff with expertise or training in benefit/cost analysis	Yes	Outside Contractor, Bruno Associates
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Outside Contractor, Boswell Engineering

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Zoning Official
Emergency manager	No	-
Grant writers	Yes	Public Safety Director
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	-	-

5.3.4 Fiscal Capability

Table 5-5 summarizes financial resources available to Guttenberg.

Table 5-5. Fiscal Capabilities

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

5.3.5 Education and Outreach Capability

Table 5-6 summarizes the education and outreach resources available to Guttenberg.

5.3.6 Community Classifications

Table 5-7 summarizes classifications for community programs available to Guttenberg.

Table 5-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Police Officer
Personnel skilled or trained in website development	Yes	Work for Town
Hazard mitigation information available on your website	Yes	Fire prevention education
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Reverse 911
Natural disaster/safety programs in place for schools	Yes	Evacuation drills and fire drills
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	Senior Department that takes care of those that need assistance
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	CERT Team

Table 5-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Sustainable Jersey	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	-	-	-

N/A = Not applicable

— = Unavailable

5.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 5-8 summarizes the adaptive capacity for each identified hazard of concern and the Town'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 5-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Moderate
Drought	Weak
Extreme Temperature	Weak
Flood	Weak
Geological Hazards	Weak
Severe Weather	Weak
Severe Winter Weather	Weak
Wildfire	Weak

5.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 5-1 is responsible for maintaining this information.

5.4.1 NFIP Statistics

Table 5-9 summarizes the NFIP policy and claim statistics for Guttenberg.

Table 5-9. Guttenberg NFIP Summary of Policy and Claim Statistics

# Policies	**140**
# Claims (Losses)	**4**
Total Loss Payments	**$68,572.50**
# Repetitive Loss Properties (NFIP definition)	**0**
# Repetitive Loss Properties (FMA definition)	**0**
# Severe Repetitive Loss Properties (NFIP definition)	**0**
# Severe Repetitive Loss Properties (FMA definition)	**0**

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2024

5.4.2 Flood Vulnerability Summary

Table 5-10 provides a summary of the NFIP program in Guttenberg.

Table 5-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Main Street and JFK Boulevard in relation to storm drainage (this was repaired) so no flood issues since
Do you maintain a list of properties that have been damaged by flooding?	Yes, FEMA is notified upon documentation
Do you maintain a list of property owners interested in flood mitigation?	None are interested.
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	None
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Yes, Based upon damage amount; visual inspection
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Zero
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
NFIP Compliance	
What local department is responsible for floodplain management?	DPW
Are any certified floodplain managers on staff in your jurisdiction?	Yes
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Yes, Education and outreach
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Depends on how large it is; limit on heights.
What are the barriers to running an effective NFIP program in the community, if any?	No
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No

NFIP Topic	Comments
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	Unknown
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 21 Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	2017
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	No
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

5.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 5-11 through Table 5-13.

Table 5-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2019				
Total Permits	1	5	0	6
Permits within SFHA	0	-	0	0
2020				
Total Permits	0	2	0	2
Permits within SFHA	0	-	0	0
2021				
Total Permits	0	2	0	2
Permits within SFHA	0	0	0	0
2022				
Total Permits	0	2	0	2
Permits within SFHA	0	0	0	0
2023				
Total Permits	1	1	0	2
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 5-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Ammar Artani	Multi-Family	12 Units	400-02 69th St		
El Tolo Realty LLC/Mario Barquin	Multi-Family	2 Units	207 71st St		
7000 Polk LLC/Carlis Crespo	Multi-Family	20 Units	7000-04 Polk St		
Guttenberg Investors, LLC/Joe Felice	Multi-Family	30 Units	80-84 70th St		
Jonathan Levy	Multi-Family	19 Units	6710-12 Park Ave		
Meadowview Lofts LLC/ Mario Echievarria	Multi-Family	32 Units	6901-05 Madison St		
Monterrosa, Louis & Natalia	Multi-Family	2 Units	149 69th St		
Guttenberg 70th St, LLC/Rene Jinorio	Multi-Family	15 Units	210-12 70th St		
6800-02 Polk St, LLC/Mario Echevarria	Multi-Family	16 Units	6800-02 Polk St		
327 69th St, LLC/Hakan USAL	Multi-Family	2 Units	327 69th St		
Keze Lin - Condo	Single-Family	1 Unit	211 70th St		
68th Street Investments LLC/Hava Alter Footings and Foundation	Unknown	Unknown	60-64 68th St		

** Only location-specific hazard zones or vulnerabilities identified.*

Table 5-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

5.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Guttenberg's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

5.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Town are shown in Figure 5-1 through Figure 5-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Guttenberg has significant exposure. The maps show the location of potential new development, where available.

Figure 5-1. Guttenberg Hazard Area Extent and Location Map 1

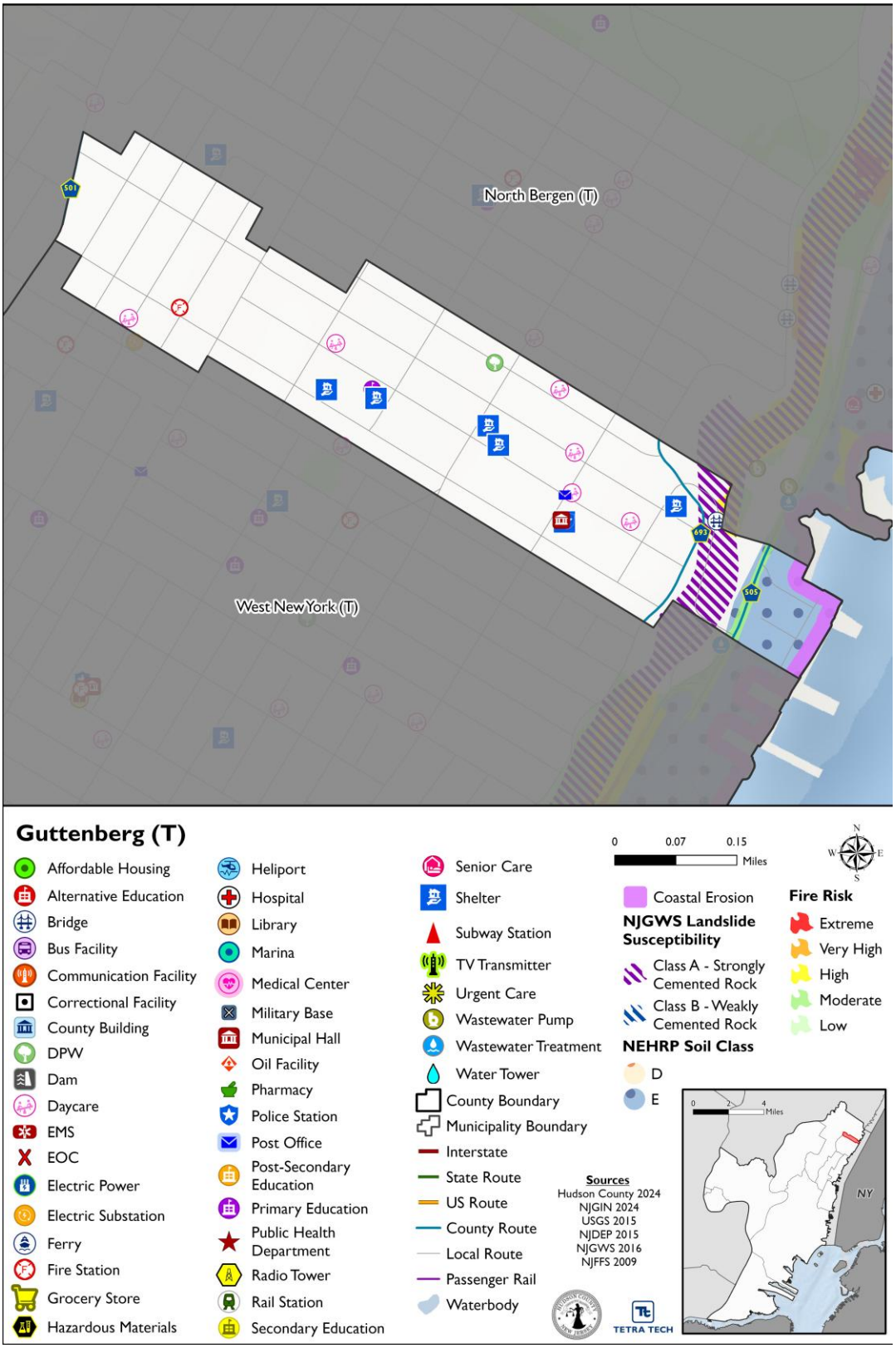


Figure 5-2. Guttenberg Hazard Area Extent and Location Map 2

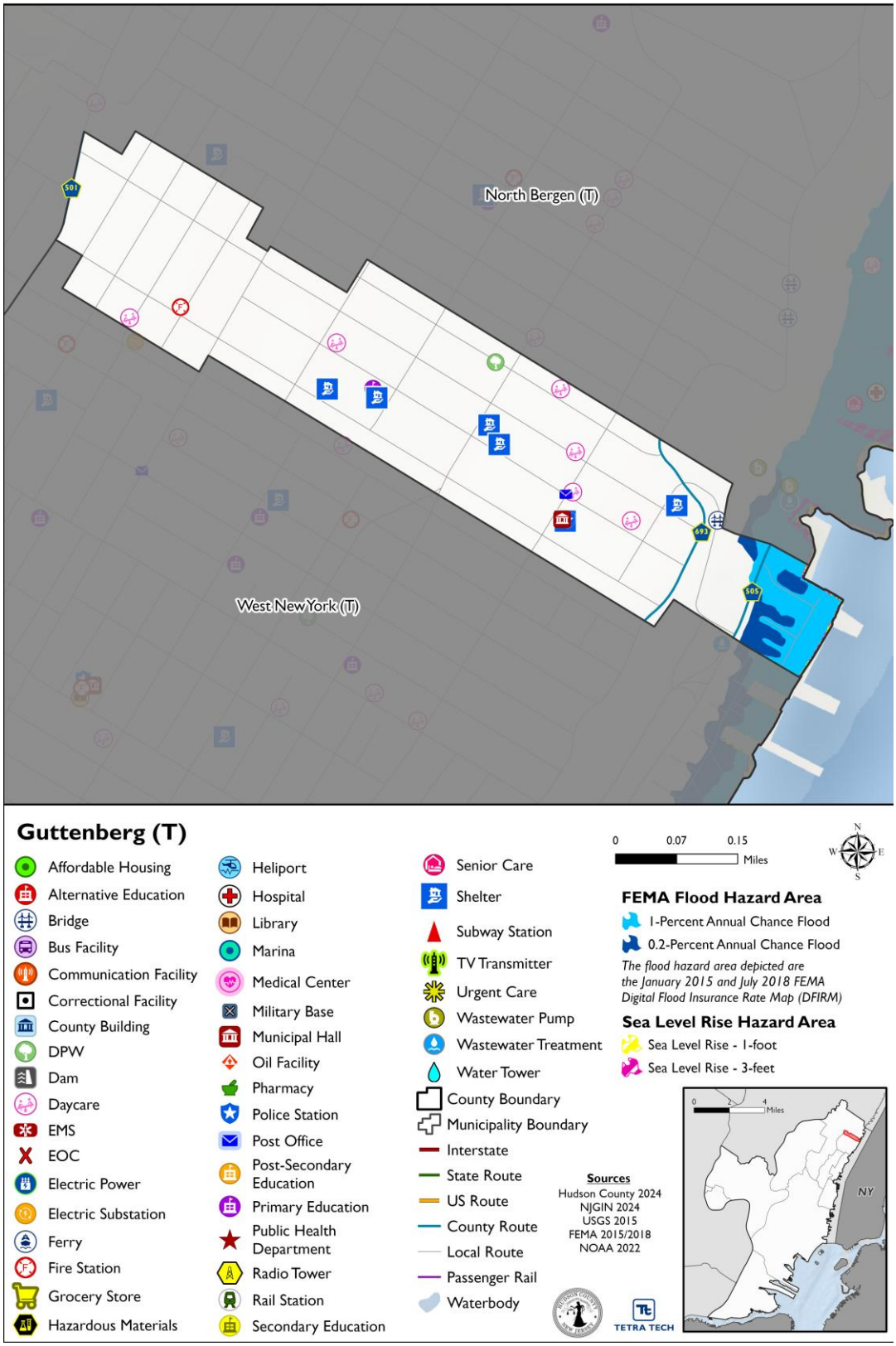
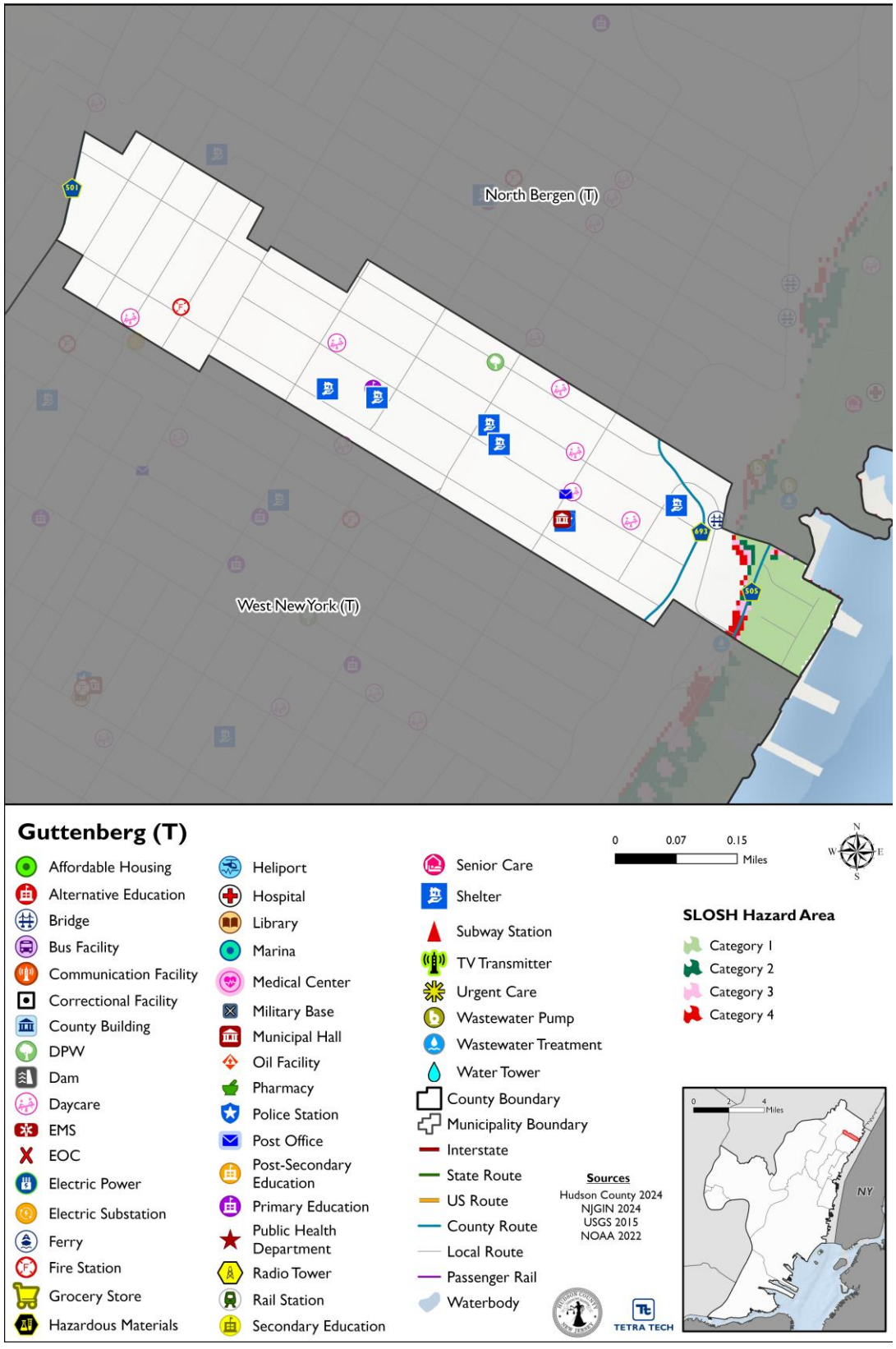


Figure 5-3. Guttenberg Hazard Area Extent and Location Map 3



5.6.2 Hazard Event History

The history of natural and non-natural hazard events in Guttenberg is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 5-14 provides details on loss and damage in Guttenberg during hazard events since the last hazard mitigation plan update.

Table 5-14. Hazard Event History in Guttenberg

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Kearny
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The Town did not experience any noted or documented damages or losses.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	The Town did not experience any noted or documented damages or losses.
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The Town did not experience any noted or documented damages or losses.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The Town did not experience any noted or documented damages or losses.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	The Town did not experience any noted or documented damages or losses.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	Sewer Damage 68th and Blvd East; G.T.C.A sustained damage several units in Tower (1); Mall flooded and damaged all garage elevators (3)

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Kearny
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	The Town did not experience any noted or documented damages or losses.

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

5.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Guttenberg.

5.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. Guttenberg reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Town indicated the following:

- Drought was ranked medium; Town has updated to Low.
- Flood was ranked medium; Town has updated to Low based on damage repairs at 68 St and Blvd East.
- Geological Hazards were ranked medium; Town has updated to low.
- Severe Winter Weather was ranked medium; Town has updated to low.

Table 5-15 shows Guttenberg's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 5-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Low
Drought	Low
Extreme Temperature	Low
Flood	Low
Geological Hazards	Low
Severe Weather	High
Severe Winter Weather	Low
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

5.6.3.2 Critical Facilities

Table 5-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 5-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
None Identified			

Source: Hudson County; HIFLD; NJGIN

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Guttenberg:

- None Identified

5.6.4 Identified Issues

After review of Guttenberg's hazard event history, hazard rankings, hazard location, and current capabilities, Guttenberg identified the following vulnerabilities within the community:

- The Town will conduct a feasibility assessment to determine how to best rectify the flooding issues on Ferry Road and allow sewers to handle the high volume of water. The Town will adjust the curbing to ensure the curbs are not damaged by the speed of water flowing downhill. Ferry Road experiences stormwater flooding. Ferry Road is the only drainage point of Guttenberg to River Road. In the past, flooding has flooded the Galaxy Garage and caused damage to curbing and adjacent properties.
- The Town of Guttenberg is facing significant stormwater flooding issues near River Road, exacerbated by the Combined Sewer Overflow (CSO) outfall. The current infrastructure is insufficient to handle the high volume of stormwater, leading to frequent flooding and damage to adjacent properties.

- Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:
    - Determine where the damage occurred within the community and if the damaged structures are in an SFHA.
    - Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.
    - Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.
    - Require permits for floodplain development.

  The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.

- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.

* This issue was identified as a specific area of concern based on resident response to the Hudson County Hazard Mitigation Citizen survey.

5.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

5.7.1 Past Mitigation Action Status

Table 5-17 indicates progress on the Town's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

Table 5-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Guttenberg-001	TRANSCO Pipeline protection	Extreme Temperature, Flood, Geological Hazard, Severe Weather, Severe Winter Weather, Wildfire	TRANSCO, Town of Guttenberg Administration	The Town will work with TRANSCO to conduct a feasibility assessment to determine the best methods to secure the TRANSCO Pipeline where it is exposed in the Town. The Town will partner with TRANSCO to implement any identified mitigation actions. The TRANSCO gas pipeline is a 36" pipeline that runs from Texas to New York City. The pipeline passes through Guttenberg. The pipeline is exposed in certain areas in the Town. Natural hazards and non-natural hazards could damage the pipeline and cause a major leak.	1. Complete 2. Exposed in North Bergen-but project is complete for the Town.	1. Discontinue 2. N/A 3. Project Complete
2020-Guttenberg-002	Ferry Road Drainage	Flood, Severe Weather	Public Works	The Town will conduct a feasibility assessment to determine how to best rectify the flooding issues on Ferry Road and allow sewers to handle the high volume of water. The Town will adjust the curbing to ensure the curbs are not damaged by the speed of water flowing downhill. Ferry Road experiences stormwater flooding. Ferry Road is the only drainage point of Guttenberg to River Road. In the past, flooding has flooded the Galaxy Garage and caused damage to curbing and adjacent properties.	1. In Progress 2. Working on JFK Boulevard East Project with NJ Department of Community Affairs Resilient Communities Program (DCA RCP). Please see below 2025-Guttenberg-001.	1. Discontinue 2. N/A 3. New action generated and will merge with this one. See action 2025-Guttenberg-001.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Guttenberg-003	CSO Separation	Flood	MUA, Engineer	The Town will support the MUA efforts to separate the CSO system The Town has a CSO system which can be overwhelmed by heavy rainfall.	1. N/A 2. Responsible party is MUA	1. Discontinue 2. N/A 3. Will not move forward with the Town. Will add to MUA annex.
2020-Guttenberg-004	Explore converting GTCA Movie Theater into shelter	All Hazards	OEM	The Office of Emergency Management will explore the possibility of converting the GTCA Movie Theater into a large shelter. If feasible, the OEM will conduct an assessment of the space and the costs for conversion. If appropriate, the OEM will begin the process of converting the space to a shelter including purchasing and installing a generator and other necessary supplies. The GTCA Movie Theater is a large abandoned space (roughly 25,000 to 30,000 square feet). The space is mainly located underground. With the Town's proximity to NYC and being a densely populated municipality, there is a need for large sheltering space.	1. No Progress 2. N/A	1. Discontinue 2. N/A 3. Theater has been in litigation for the last 12 years; the Town does not own the facility. School could be used in an emergency.
2020-Guttenberg-005	Outreach regarding severe storms and winter storms	Severe Weather, Severe Winter Weather	OEM	The Town will conduct outreach to facilities with generators to encourage larger backup fuel supplies for generators. Some generators for large residential structures may not have appropriate fuel supply for long term outages caused by severe storms and winter storms.	1. Complete 2. N/A	1. Discontinue 2. N/A 3. This action has been completed.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Guttenberg-006	Replace air conditioning units at Guttenberg Care Center	Extreme Temperature	Guttenberg Care Center, Administration	Work with the Guttenberg Care Center to find grant funding support to replace outdated air conditioning units. The Guttenberg Care Center houses a large number of seniors. The air conditioning units are outdated.	1. Complete 2. N/A	1. Discontinue 2. N/A 3. This action has been completed.
2020-Guttenberg-007	Update water infrastructure during sewer work	Extreme Temperature	Public Works	The town will evaluate water mains during sewer work and make necessary upgrades and improvements as necessary. The town's water mains are nearly 100 years old and prone to breaking.	1. Complete 2. N/A	1. Discontinue 2. N/A 3. This action has been completed.
2020-Guttenberg-008	Update Flood Damage Prevention Ordinance	Flood	Administration, FPA	Update the Flood Damage Prevention Ordinance to include the state mandated 1-foot freeboard requirement The town's Flood Damage Prevention Ordinance does not include the state's freeboard requirement.	1. No Progress 2.N/A	1. Include 2. No Change 3. N/A

5.7.2 Additional Mitigation Efforts

In addition to the completed mitigation actions from the previous HMP, Guttenberg identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

5.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Guttenberg participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Guttenberg would like to pursue in the future to reduce the effects of hazards. The actions 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 Town priorities.

Table 5-18 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 5-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 5-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X				X					X
Drought	X				X					X
Extreme Temperatures	X				X					X
Flood	X	X			X				X	X
Geological Hazards	X				X					X
Severe Weather	X	X			X				X	X
Severe Winter Weather	X				X					X
Wildfire	X				X					X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 5-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-Guttenberg-001	JFK Boulevard East Flood Mitigation Project	0	1	1	1	1	0	1	0	1	1	1	1	1	0	**10**	Medium
2025-Guttenberg-002	CSO Outfall System Improvements	0	1	1	1	1	0	1	0	1	1	1	1	1	0	**10**	Medium
2025-Guttenberg-003	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	**13**	High
2025-Guttenberg-004	Update Flood Damage Prevention Ordinance	0	1	1	1	1	1	1	0	1	0	1	1	1	1	**11**	High

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

Action 2025-Guttenberg-001. JFK Boulevard East Flood Mitigation Project

Lead Agency:	Public Works	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The Town will conduct a feasibility assessment to determine how to best rectify the flooding issues on Ferry Road and allow sewers to handle the high volume of water. The Town will adjust the curbing to ensure the curbs are not damaged by the speed of water flowing downhill. Ferry Road experiences stormwater flooding. Ferry Road is the only drainage point of Guttenberg to River Road. In the past, flooding has flooded the Galaxy Garage and caused damage to curbing and adjacent properties.	
Description of the Solution:	Public Works will upgrade the drainage system on River Road to reduce flooding in the area, particularly around the Galaxy Building complex. The Town is currently working with DCA RCP to receive funding. This includes going out to bid for designers to bring this project from 30 percent to 100 percent.	
Estimated Cost:	High	
Potential Funding Sources:	Municipal Budget, DCA RCP (Department of Community Affairs Resilient Communities Program)	
Implementation Timeline:	1-5 years	
Goals Met:	2,6	
Benefits:	The reduction of stormwater flooding, which will prevent damage to properties, infrastructure, and the Galaxy Garage.	
Impact on Socially Vulnerable Populations:	Reducing flooding will improve safety and health conditions for residents, particularly those in socially vulnerable populations who may be disproportionately affected by flooding.	
Impact on Future Development:	Improved infrastructure and reduced flooding will make the area more attractive for future development, potentially increasing property values and encouraging investment.	
Impact on Critical Facilities/Lifelines:	Protecting the Galaxy Building complex from flooding ensures the continuity of services and operations, which is crucial for the community.	
Impact on Capabilities:	Improved infrastructure increases the Town's preparedness for extreme weather events, enhancing resilience and response capabilities.	
Climate Change Considerations:	Enhancing drainage systems and protecting curbs contribute to the Town's overall resilience against climate change impacts, ensuring long-term sustainability.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Retention Pond	Space constraints, High costs
	Green Infrastructure	Requires maintenance

Action 2025-Guttenberg-002. CSO Outfall System Improvements

Lead Agency:	Administration	
Supporting Agencies:	Town Public Works	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The Town of Guttenberg is facing significant stormwater flooding issues near River Road, exacerbated by the Combined Sewer Overflow (CSO) outfall. The current infrastructure is insufficient to handle the high volume of stormwater, leading to frequent flooding and damage to adjacent properties.	
Description of the Solution:	The Town plans to utilize I-bank funding to upgrade the CSO outfall near River Road. However, there are design constraints that need to be understood through test pitting the area before construction can commence in spring/summer 2025.	
Estimated Cost:	High	
Potential Funding Sources:	I-Bank Funding	
Implementation Timeline:	1-5 years	
Goals Met:	2,6	
Benefits:	Enhanced stormwater management improves the capacity to manage stormwater and reduce flooding, protects properties from flood-related damage, and strengthens the Town's resilience against future storm events.	
Impact on Socially Vulnerable Populations:	Reducing flooding will protect homes and businesses, particularly benefiting socially vulnerable populations who may be disproportionately affected by flood damage.	
Impact on Future Development:	Improved infrastructure can support future development projects by providing reliable stormwater management.	
Impact on Critical Facilities/Lifelines:	Ensures that essential services and lifelines remain operational during storm events.	
Impact on Capabilities:	Upgraded infrastructure will increase the Town's capacity to manage stormwater effectively.	
Climate Change Considerations:	These systems will enable continuous assessment and adaptation to ensure long-term resilience and functionality. By proactively addressing these challenges, the town aims to safeguard its community and infrastructure against evolving climate conditions.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Constructing a detention basin	High costs
	Underground storage tanks	Complex, regular maintenance

Action 2025-Guttenberg-003. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	Town OEM, Town Public Works
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
Description of the Solution:	The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 *Developing a Substantial Damage Management Plan* (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	3, 6
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
Impact on Capabilities:	This action improves disaster recovery capabilities.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
Mitigation Category	Local Plans and Regulations
CRS Category	Emergency Services, Preventative Measure
Priority	High

Alternatives	Action	Evaluation
	No Action	-
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements

Action 2025-Guttenberg-004.Update Flood Damage Prevention Ordinance

Lead Agency:	Floodplain Administrator
Supporting Agencies:	Construction Official, Administration, NFIP State Coordinator, FEMA Regional Office
Hazards of Concern:	Flood
Description of the Problem:	A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.
Description of the Solution:	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.
Estimated Cost:	Staff time
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years
Goals Met:	1, 2, 6,7
Benefits:	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.
Impact on Socially Vulnerable Populations:	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.
Impact on Future Development:	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.
Impact on Critical Facilities/Lifelines:	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.
Impact on Capabilities:	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.
Climate Change Considerations:	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measure
Priority	High

Alternatives	Action	Evaluation
	No Action	Current problem exists
	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage

6. TOWN OF HARRISON

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Town of Harrison with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Harrison, describes who participated in the planning process, assesses Harrison's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

6.1 Hazard Mitigation Planning Team

The Town of Harrison identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Town departments. The Office of Emergency Management Coordinator represented the community on the Hudson County HMP Planning Partnership and supported the local planning process 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.

Table 6-1 summarizes Town officials who participated in the development of the annex and in what capacity. Additional documentation of the Town's planning activities through Planning Partnership meetings is included in Volume I.

Table 6-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Harold G. Stahl, OEM Coordinator Address: 318 Harrison Avenue, Harrison, NJ 07029 Phone Number: 973-483-0173 Email: hstahl@townofharrison.com	Name/Title: Henry Richard, Fire Chief/Deputy OEM Coordinator Address: 318 Harrison Avenue, Harrison, NJ 07029 Phone Number: 973-268-2296 Email: hrichard@townofharrison.com
National Flood Insurance Program Floodplain Administrator	
Name/Title: Rocco Russomanno, Town Engineer Address: 318 Harrison Avenue, Harrison, NJ 07029 Phone Number: 973-268-2425 Email: rrussomanno@townofharrison.com	
Additional Contributors	
Name/Title: Harold G. Stahl, OEM Coordinator Method of Participation: Provided key input in the planning process by completing worksheets	
Name/Title: Rocco Russomanno, Town Engineer Method of Participation: Provided key input in the planning process by completing worksheets and attended meetings	
Name/Title: Henry Richard, Fire Chief/Deputy OEM Method of Participation: Participated in planning process and completed worksheets	

6.2 Community Profile

6.2.1 Brief History

The area now known as the Town of Harrison was originally part of a 30,000-acre land grant given to Captain William Sandford from Barbados. He named it "New Barbados Neck" and had his nephew, Major Nathanial Kingsland, purchase the land from the Unami Indians, a branch of the Leni Lenape. In 1825, the New Jersey Legislature renamed the area the Township of Lodi in Bergen County. Due to the inconvenience of traveling to the county seat in Hackensack, residents joined others in petitioning for a new county (Town of Harrison 2025). This led to the creation of Hudson County in 1840, and the Township of Harrison was officially established in the same year and is named for President William Henry Harrison.

6.2.2 Location

The Town of Harrison is located along the Passaic River in western Hudson County. It is bordered by the Borough of East Newark and the Town of Kearny to the North, and the Passaic River forms the western and southern border.

6.2.3 Governing Body Format

The governing body of the Town consists of a mayor and town council. This governing body will be responsible for the adoption and implementation of this plan.

6.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for Harrison was 19,450, a 20.1 percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 6.1 percent of the population is 5 years of age or younger, 10.6 percent is 65 years of age or older, 21.1 percent is non-English speaking, 7.4 percent is below the poverty threshold, and 14.0 percent is considered disabled.

6.2.4.1 ALICE in Hudson County

ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. While conditions have improved for some households, many continue to struggle, especially as wages fail to keep pace with the rising cost of household essentials (housing, child care, food, transportation, health care, and a basic smartphone plan). Households below the ALICE Threshold – ALICE households plus those in poverty – can't afford the essentials.

According to 2021 Point-in-Time-Data from ALICE, 24 percent of the 292,000 households in Hudson County are ALICE households (compared to the state average of 26 percent). The median household income in Hudson is $80,329, and the County sees a labor force participation rate of 69 percent. Hudson County faces low household income compared to the state average of $89,296 and while the County does carry a 3 percent higher labor participation rate compared to state numbers, 15 percent of Hudson households live in poverty.

6.3 Jurisdictional Capability Assessment and Integration

Harrison performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

6.3.1 Planning and Regulatory Capability and Integration

Table 6-2 summarizes the planning and regulatory tools that are available to Harrison.

Table 6-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	State Uniform Construction Code; Title 15 – Buildings and Construction	State and Local	Construction and Engineering
How has or will this be integrated with the HMP and how does this reduce risk? Building codes establish standards and regulations for construction and occupancy including structural integrity and fire safety. Adherence to building codes ensures that structures are designed and built to meet current safety standards, minimizing the risk of injury to life or property as a result of structural or systemic failure. State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2021, NJAC 5:24-3.14. Chapter 15 of Building and Housing. Adopted Uniform Construction Code.				
Zoning/Land Use Code	Yes	Title 17 Land Development Ordinance, Article IV – Zoning	Local	Construction and Engineering
How has or will this be integrated with the HMP and how does this reduce risk? No building or structure shall be erected and no existing building or structure shall be moved, altered, reconstructed, added to or enlarged, nor shall any land, building or structure be designed or used for any purpose or in any manner other than as specified among the uses listed as permitted, accessory or conditional in the zone in which such building, structure or land is located, and subject to all area, yard and building requirements.				
Subdivision Code	Yes	Title 17 Land Development Ordinance, Article III – Subdivision Ordinance	Local	Construction and Engineering
How has or will this be integrated with the HMP and how does this reduce risk? The Subdivision Ordinance requires a site description and map of wetland areas, wetland buffers, and floodplains located on site to be provided for Site Plan Review for Subdivisions. Negative impacts from potential development must also be discussed to include flooding and floodplain disruption, and soil erosion and sedimentation.				
Site Plan Code	Yes	Title 17 Land Development Ordinance, Article III – Application Requirements and Development Procedures	County and Local	Construction and Engineering
How has or will this be integrated with the HMP and how does this reduce risk? The Ordinance requires a site description and map of wetland areas, wetland buffers, and floodplains located on site to be provided for Site Plan Review for Subdivisions. Negative impacts from potential development must also be discussed to include flooding and floodplain disruption, and soil erosion and sedimentation.				
Stormwater Management Code	Yes	Title 17, Article VIII – Stormwater Control	Local	Water and Sewer Department
How has or will this be integrated with the HMP and how does this reduce risk? Flood control, groundwater recharge, and pollutant reduction shall be achieved with stormwater management measures, including green infrastructure Best Management Practices (GI BMPs) and nonstructural stormwater management strategies. GI BMPs and low impact development (LID) should be utilized to meet the goal of maintaining natural hydrology to reduce stormwater runoff volume, reduce erosion, encourage infiltration and groundwater recharge, and reduce pollution. GI BMPs and LID should be developed based upon physical site conditions and the origin, nature and the anticipated quantity, or amount, of potential pollutants. Multiple stormwater management BMPs may be necessary to achieve the established performance standards for water quality, quantity, and groundwater recharge.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?
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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:
• 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?
Not all provisions of this law have become effective at the time of the writing of this plan.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Growth Management	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Flood Damage Prevention Ordinance	Yes	Title 15 Buildings and Construction, Chapter 15.24 – Floodplain Management Regulations	Federal, State, County and Local	Construction and Engineering
How has or will this be integrated with the HMP and how does this reduce risk? The purposes and objectives of these regulations are to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific flood hazard areas through the establishment of comprehensive regulations for management of flood hazard areas, designed to: 1.Protect human life and health. 2.Prevent unnecessary disruption of commerce, access, and public service during times of flooding. 3.Manage the alteration of natural floodplains, stream channels and shorelines; 4.Manage filling, grading, dredging and other development which may increase flood damage or erosion potential. 5.Prevent or regulate the construction of flood barriers which will divert floodwater or increase flood hazards. 6.Contribute to improved construction techniques in the floodplain. 7.Minimize damage to public and private facilities and utilities. 8.Help maintain a stable tax base by providing for the sound use and development of flood hazard areas. 9.Minimize the need for rescue and relief efforts associated with flooding. 10.Ensure that property owners, occupants, and potential owners are aware of property located in flood hazard areas. 11.Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events. 12.Meet the requirements of the National Flood Insurance Program for community participation set forth in Title 44 Code of Federal Regulations, Section 59.22. The chapter follows the model code coordinated ordinance.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	Town of Harrison Master Plan Reexamination Report, 2020	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Capital Improvement Plan	Yes	Municipal Budget	Local	Mayor and City Council
How has or will this be integrated with the HMP and how does this reduce risk?				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	Yes	Municipal Stormwater Management Plan (MSWMP)	Local	Water and Sewer Department
How has or will this be integrated with the HMP and how does this reduce risk? This Municipal Stormwater Management Plan (MSWMP) documents the initial strategy for the Town of Harrison (Town) to address stormwater management primarily in new development and redevelopment projects that involve greater than 1 acre of disturbance. The development of this plan is required by N.J.A.C. 7:14A-25 Municipal Stormwater Regulations. This plan contains all of the elements required for completion in 2005 as described in N.J.A.C. 7:8 et seq., Stormwater Management Rules. The plan addresses stormwater quantity, and stormwater quality impacts to projects subject to the requirements of N.J.A.C. 7:8 et seq., by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies.				
Stormwater Pollution Prevention Plan	Yes	Stormwater Pollution Prevention Plan, 2021	Local	Water and Sewer Dept.
How has or will this be integrated with the HMP and how does this reduce risk? Works in conjunction with the Municipal Stormwater Management Plan to describe long-term operation and maintenance measures for existing and future stormwater facilities, and the management of runoff from said facilities in to populated areas.				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	Yes	Town of Harrison Master Plan Reexamination Report, 2020	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of the Reexamination Report is to review and evaluate the local Master Plan and Development Regulations on a periodic basis in order to determine the need for updates and revisions. The Town adopted its last Master Plan in 2007 and its most recent Reexamination Report in December of 2017. This Reexamination Report serves as an amendment to the 2017 Master Plan Reexamination Report.				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	Yes	Town of Harrison Master Plan Reexamination Report, 2020	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of the Reexamination Report is to review and evaluate the local Master Plan and Development Regulations on a periodic basis in order to determine the need for updates and revisions. The Town adopted its last Master Plan in 2007 and its most recent Reexamination Report in December of 2017. This Reexamination Report serves as an amendment to the 2017 Master Plan Reexamination Report.				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	Yes	Harrison Waterfront Redevelopment Plan, 2017; Long Term Control Plan (CSO Planning), 2020	Local	Planning Board; Passaic Valley Sewerage Commission Regional Planning
How has or will this be integrated with the HMP and how does this reduce risk? Harrison Waterfront Redevelopment Plan, 2017: The Waterfront Redevelopment Plan discussed supporting the U.S. Army Corps of Engineer's Passaic River Flood Control Project for the Waterfront Area. The flood control project in Harrison, known as the South 1st Street levee/flood system, is a combination of floodwalls and levees. The system will provide protection to development from tidal floods from the Jackson Street Bridge to the NJ Transit rail bridge just south of the Route 280 bridge. The entire Redevelopment Area will be protected from the 100 Year Flood. The authorized plan proposes a total of 7,450 linear feet of levee and floodwall with eight enclosures. According to the U.S. Army Corps of Engineers, the levees will total 1,750 feet in length with an average height of 6.5 feet and an average base-width of 50 feet. The floodwall portion will be 5,700 feet in length and will have an average height of 6.2 feet. A continuous line of protection would be provided through gated structures at several sites adjacent to the Passaic River and Frank E. Rodgers Boulevard (see the Environmental Constraints-Flooding map). The project design memorandum has been completed, and the project team is working on engineering and design of the project. A Limited Reevaluation Report is being prepared to reaffirm the viability of the project. The NJDEP has provided a letter of support. Current funding is being utilized to update hydrology and hydraulics. Long Term Control Plan (CSO Planning), 2020: This plan is a way of mitigating the amount of flow that enters into the sewer system by using new and sustainable technologies. Examples of such technology includes a storage system within the pipes to control the overflow, additional holding tanks, and treatment plant expansions. Additional green infrastructure techniques will be considered, such as pervious paving, bioretention basis, and vegetated swales.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Town of Harrison Emergency Operations Plan, 2023	Local	Harrison OEM
How has or will this be integrated with the HMP and how does this reduce risk?				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Strategic Recovery Planning Report	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	Yes	Town of Harrison Emergency Operations Plan Recovery Element, 2023	Local	Harrison OEM
How has or will this be integrated with the HMP and how does this reduce risk? Included as an element of the Emergency Operations Plan to guide community rebuilding and redevelopment following a disaster. Provides a framework for orderly recovery and return to normalcy within the Town.				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

6.3.2 Development and Permitting Capability

Table 6-3 summarizes the capabilities of Harrison to oversee and track development.

Table 6-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	Yes N/A	 Construction and Engineering
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain is tracked
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	No N/A	- -
Describe the level of buildout in your jurisdiction.	N/A	Almost 1/3 of Harrison is going through redevelopment at this time.

6.3.3 Administrative and Technical Capability

Table 6-4 summarizes potential staff and personnel resources available to Harrison and their current responsibilities that contribute to hazard mitigation.

Table 6-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	Planning Board
Zoning Board of Adjustment	Yes	Zoning Board of Adjustment and Construction Board of Appeals
Planning Department	Yes	Zoning Office This office is charged with the administration of the town's Land Development Ordinance (zoning ordinance). This office performs the following duties: •Perform inspections for the issuance of Certificates of Continued Occupancy in connection with the transfer of title or changes in occupancy. •Review construction permit applications to insure compliance with the zoning regulations of the town. •Issue letters of denial and refer applicants to the Board of Adjustments when an individual's project fails to comply with the Land Development Ordinance. •Issue Zoning permits for site improvement which mayor may not require a construction permit (common examples include, fences, signs, sheds and concrete or •asphalt pavement installation on private property). •Issue municipal summons when it is determined that the provisions of the Land Development Ordinance has been violated.
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Harrison Redevelopment Agency
Public Works/Highway Department	Yes	The Department of Public Works is responsible for maintaining the towns' public infrastructure. These responsibilities include keeping streets clean, snow removal, landscaping, construction, upkeep of all road signs, traffic lights, sewerage, as well as many other responsibilities. The Department also has a maintenance shop where mechanics maintain the town vehicles such as police cars, fire trucks, senior buses, etc. The Water and Sewer Department maintains and constructs or contracts all water and sewer facilities within the town. Responsibilities include operation and maintenance of the town's water lines, pumps, hydrants, etc. Also, pressure washing sewer lines to allow proper flow and vacuuming sewer lift stations to remove grease and debris. The Water and Sewer Department works with builders in the addition of new construction, maintains meters and provides meter readings for billing on a six-month basis.
Construction/Building/Code Enforcement Department	Yes	Code Enforcement Office This office is charged with the administration and enforcement of the Uniform Construction Code of the State of New Jersey. The staff consists of the construction official, sub code officials and assistants. The following activities are performed by this office: •Provide construction applications and assistance to the public. •Review all permit applications for completeness and verification of prior approvals. •Issue construction permits and collect permit fees. •Perform all required inspections in connection with permits. •Issue Certificates of Approval or Certificates of Occupancy for projects which have been completed. •Issue Notices of Violation, Stop Work Orders and Unsafe Structure Notices when it is determined that provisions of the Uniform Construction Code have been violated. Municipal Engineers Office This office is responsible for overseeing the preparation of design documents as well as perform on-site inspections and prepares reports of all municipal capital improvement projects such as: •Annual Resurfacing projects (milling and paving of streets) covered under NJDOT Local Aid. •Improvements to the water distribution system. •Improvements to the combined sewer collection system. •Streetscape projects. •Issue permits for the installation or replacement of concrete curb and sidewalk in the public right of way.

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		•Issue permits for new utility connections (water and sewer). The municipal engineer acts as the town representative to ensure compliance with design documents. Other duties include performing on-site inspections of private development projects to ensure that all improvements which will be dedicated back to the town have been constructed in accordance with approved plans and specifications.
Emergency Management/Public Safety Department	Yes	Police Department
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	See DPW and Water and Sewer Department.
Mutual aid agreements	Yes	Fire, Police, OEM
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	Human Resource
Other	-	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Engineering and Code Enforcement; Planning Board; Heyer, Gruel and Associates
Engineers or professionals trained in building or infrastructure construction practices	Yes	Engineering and Code Enforcement
Planners or engineers with an understanding of natural hazards	Yes	Engineering and Code Enforcement Town Planner
Staff with expertise or training in benefit/cost analysis	Yes	Town Engineer CFO
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Town Planner – Heyer and Gruel Associates GIS Support from County OEM
Staff that work with socially vulnerable populations or underserved communities	Yes	Mayor's Office
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Town Engineer – Borrie McDonald and Watson
Emergency manager	Yes	OEM/Fire Department
Grant writers	Yes	Office of the Mayor Town Planning CFO
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

6.3.4 Fiscal Capability

Table 6-5 summarizes financial resources available to Harrison.

Table 6-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes – Office of the Mayor
Capital improvement project funding	Yes – Chief Financial Officer
Authority to levy taxes for specific purposes	Yes – Mayor and Council
User fees for water, sewer, gas, or electric service	Yes – Water and Sewer Utility
Impact fees for homebuyers or developers of new development/homes	Yes – Mayor and Council, OEM/Fire Department
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes – Chief Financial Officer
Incur debt through special tax bonds	Yes – Mayor and Council
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	Yes – Mayor and Council
Other federal or state funding programs	No
Open Space Acquisition funding programs	NO
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

6.3.5 Education and Outreach Capability

Table 6-6 summarizes the education and outreach resources available to Harrison.

Table 6-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Fire Department/OEM
Personnel skilled or trained in website development	Yes	Director of IT
Hazard mitigation information available on your website	Yes	Hazardous materials collection, disposal, waste, paint, etc.
Social media for hazard mitigation education and outreach	Yes	Facebook and X (Formerly Twitter)
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Community Outreach for Combine Sewer Overflows, Tide Group (Focuses on Green Infrastructure/CSO)
Warning systems for hazard events	Yes	CodeRed
Natural disaster/safety programs in place for schools	Yes	Evacuation sites & reverse 911
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Community Website, Sound Track

6.3.6 Community Classifications

Table 6-7 summarizes classifications for community programs available to Harrison.

Table 6-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	3	December 2019
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	04	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Sustainable Jersey	Yes	Registered	June 6, 2012
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

6.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 6-8 summarizes the adaptive capacity for each identified hazard of concern and the Town'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 6-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Weak
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Moderate
Geological Hazards	Weak
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Weak

6.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 6-1 is responsible for maintaining this information.

6.4.1 NFIP Statistics

Table 6-9 summarizes the NFIP policy and claim statistics for Harrison.

Table 6-9. Harrison NFIP Summary of Policy and Claim Statistics

# Policies	**215**
# Claims (Losses)	**39**
Total Loss Payments	**$5,473,793.49**
# Repetitive Loss Properties (NFIP definition)	**3**
# Repetitive Loss Properties (FMA definition)	**0**
# Severe Repetitive Loss Properties (NFIP definition)	**0**
# Severe Repetitive Loss Properties (FMA definition)	**0**

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2024

6.4.2 Flood Vulnerability Summary

Table 6-10 provides a summary of the NFIP program in Harrison.

Table 6-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Areas prone to flooding include 1st Street between Harrison Ave and NJ Railroad Ave. as well as west toward So. 2nd Street and the intersection of F. Rodgers Blvd. So. and Cifelli Drive.
Do you maintain a list of properties that have been damaged by flooding?	No

NFIP Topic	Comments
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	In accordance with FEMA recommendations and guidance
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	None
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Redevelopment projects have been constructed in accordance with the Uniform Construction Code as well as NFIP working maps which require finished 1st floors to be constructed with an elevation of base flood elevation plus 1. Privately funded.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
NFIP Compliance	
What local department is responsible for floodplain management?	Construction Official
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit Review and Inspections
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Guidance from FEMA regulations and Uniform Construction Code.
What are the barriers to running an effective NFIP program in the community, if any?	None
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	N/A
What is the local law number or municipal code of your flood damage prevention ordinance?	Ordinance 1467, Municipal Code 15.24
What is the date that your flood damage prevention ordinance was last amended?	August 16, 2022
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets

NFIP Topic	Comments
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	No
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

6.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 6-11 through Table 6-13.

Table 6-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2019				
Total Permits	0	12	0	17
Permits within SFHA	0	2	0	2
2020				
Total Permits	0	7	1	8
Permits within SFHA	0	2	0	2
2021				
Total Permits	0	9	0	9
Permits within SFHA	0	0	0	0
2022				
Total Permits	0	5	0	5
Permits within SFHA	0	0	0	0
2023				
Total Permits	0	5	0	5
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 6-12. Recent Major Development and Infrastructure from 2017 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
23rd President Urban Renewal	Multi-Family	310	555 1st Street	AE10	Completed
Dey & Bergen Partners	Multi-Family	242	1 Bergen Street	AE10	Completed
Harrison Bldg 4 Urban Renewal	Mixed / Multi-Family	381	200 Angelo Cifelli Dr	AE9	Completed

** Only location-specific hazard zones or vulnerabilities identified.*

Table 6-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

6.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Harrison's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

6.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Town are shown in Figure 6-1 through Figure 6-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Harrison has significant exposure. The maps show the location of potential new development, where available.

Figure 6-1. Harrison Hazard Area Extent and Location Map 1

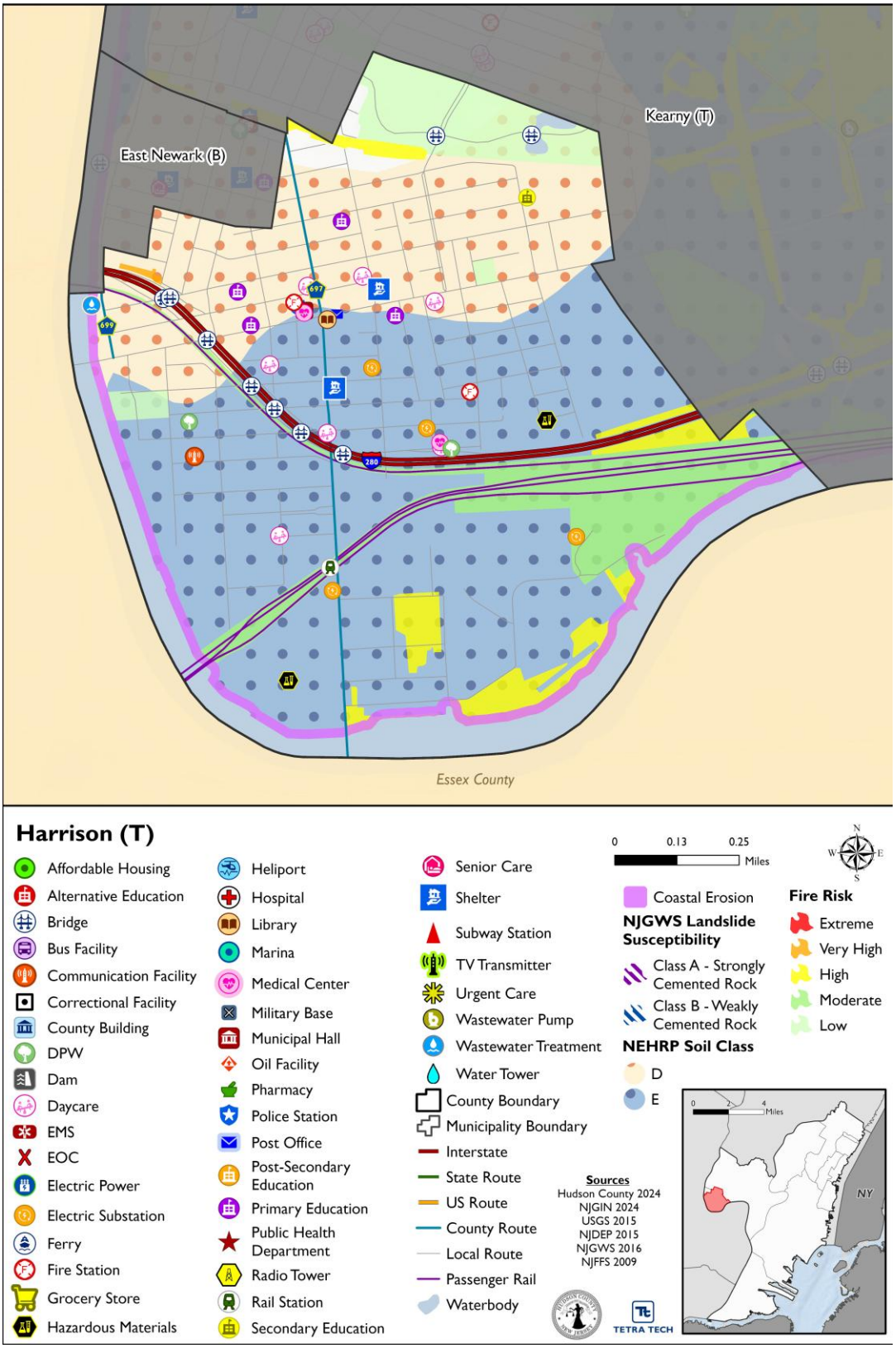


Figure 6-2. Harrison Hazard Area Extent and Location Map 2

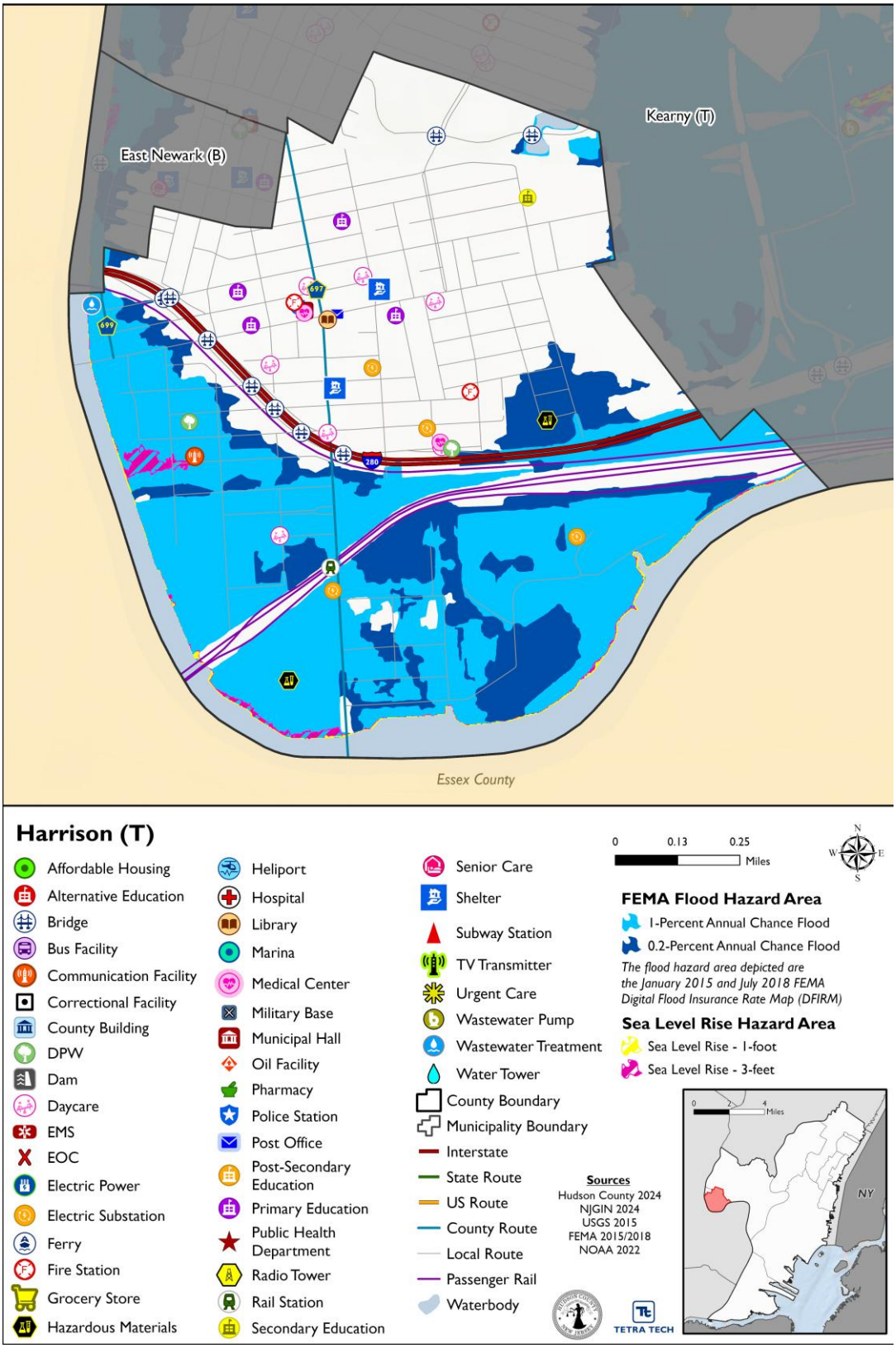
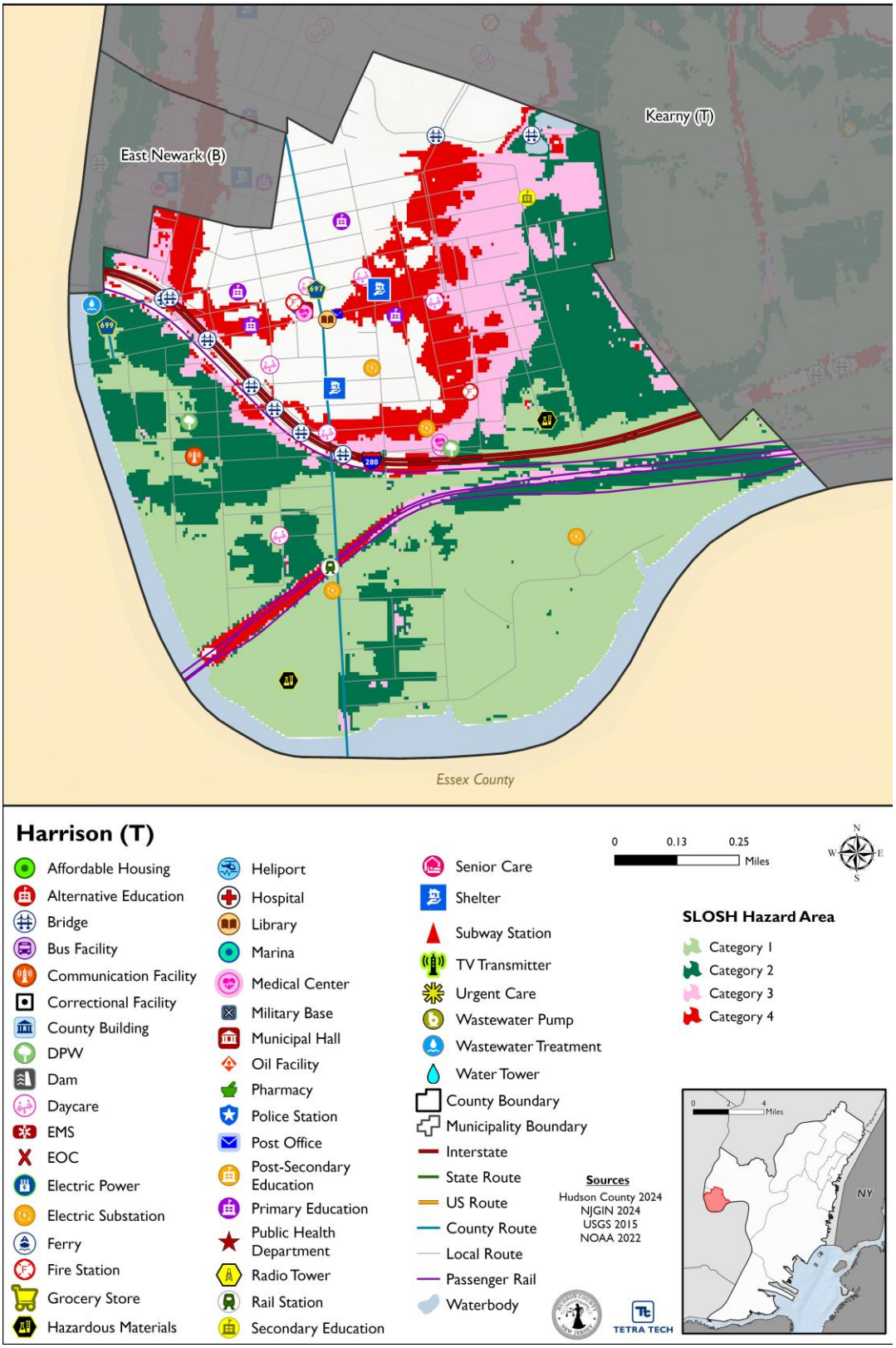


Figure 6-3. Harrison Hazard Area Extent and Location Map 3



6.6.2 Hazard Event History

The history of natural and non-natural hazard events in Harrison is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 6-14 provides details on loss and damage in Harrison during hazard events since the last hazard mitigation plan update.

Table 6-14. Hazard Event History in Harrison

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Harrison
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The Town did not experience any noted or documented damages or losses.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	Refer to County Health Dept. for number of positive cases and deaths in Harrison
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The Town did not experience any noted or documented damages or losses.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The Town did not experience any noted or documented damages or losses.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	The Town did not experience any noted or documented damages or losses.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Harrison
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	Force acct labor and equipment 26,872.00 Operations included water rescue, blocking flooded roadways, EMS responses, removal of stranded vehicles, investigations and assistance to the public as needed.
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	The Town did not experience any noted or documented damages or losses.

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

6.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Harrison.

6.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. Harrison reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Town indicated the following:

- None

Table 6-15 shows Harrison's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 6-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Low
Drought	Medium
Extreme Temperatures	Low
Flood	High
Geological Hazards	High
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

6.6.3.2 Critical Facilities

Table 6-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 6-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
Campbell Fndy. Co. (Open Storage for Castings)	Hazardous Materials	-	X
Cresskill Academy	Daycare	X	X
Harrison DPW	DPW	X	X
Harrison Town Of	Wastewater Treatment	X	X
PATH Harrison	Electric Substation	X	X
PATH Maintenance	Electric Substation	X	X
Public Service Propane Storage (LNG/Propane)	Hazardous Materials	X	X
Sprint Switching Center	Communication Facility	X	X

Source: Hudson County; HIFLD; NJGIN

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Harrison:

- None identified

6.6.4 Identified Issues

After review of Harrison's hazard event history, hazard rankings, hazard location, and current capabilities, Harrison identified the following vulnerabilities within the community:

- Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:
    - Determine where the damage occurred within the community and if the damaged structures are in an SFHA.
    - Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.
    - Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.
    - Require permits for floodplain development.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- The Town does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Without this information, the Town does not have a streamlined way to assess overall trends in damages/impacts to these properties to determine properties of the highest risk of flood damage. It also does not track communications with property owners or the implementation or interest in potential mitigation efforts.
- Although the Harrison Fire Department is well-trained and equipped to respond to flooding events, and the jurisdiction can manage a 6-foot storm surge with only minor to moderate flooding, the Town lacks a boat launch ramp. This absence limits emergency response capabilities on the river, particularly in the event of a Dundee Dam failure, where swift water access could be essential. The primary obstacle to addressing this vulnerability is insufficient funding for the construction of a boat launch.*
- Although earthquakes are not a major concern for the Town and past experiences have been limited to minor tremors, the Town is not currently trained or equipped to respond to building collapse or conduct heavy rescue operations. This gap in preparedness poses a risk in the event of a moderate or unexpected seismic event. Key obstacles include limited manpower, lack of training, insufficient equipment, and funding constraints.*
- Despite the Town's strong flood response capabilities, including certified swift water rescue personnel and additional rescue boats. There is no firehouse or rescue facility located on the side of Town most vulnerable to flooding. This area is further isolated by railroad lines, which can become impassable during flood events, delaying emergency response. Additionally, the absence of a boat launch ramp in this area limits the ability to deploy water rescue operations efficiently.*
- The Town is adjacent to the Meadowlands, an area with significant brush and vegetation that poses a wildfire risk. A major brush fire could threaten public safety, degrade air quality, and disrupt daily life. However, the Town currently faces key challenges in responding to such events, including limited manpower, insufficient funding, inadequate water supply for suppression, and a lack of specialized equipment.*
- The Angelo Cifeli Drive Drainage Area currently has a combined sewer system with inadequate drainage capacity which leads to frequent localized flooding events.
- The Bergen Street Drainage Area currently has a combined sewer system with inadequate drainage capacity which leads to frequent localized flooding events.
- There are 3 repetitive loss properties in the Town of Harrison. These 3 properties have been repetitively flooded as documented by paid NFIP claims.
- Harrison DPW Facility is an identified critical facility located in the 1- and 0.2-percent annual chance flood zone.

- The Cresthill Academy Harrison, Harrison PATH Station, Public Service Propane Storage, Harrison PATH Substation, PATH Maintenance, and Sprint Switching Center are identified critical facilities located on the 1% and 0.2% annual chance flood zones.

* This issue was identified as a specific area of concern based on resident response to the Hudson County SWOO worksheet.

6.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

6.7.1 Past Mitigation Action Status

Table 6-17 indicates progress on the Town's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

6.7.2 Additional Mitigation Efforts

In addition to the completed mitigation actions from the previous HMP, Harrison identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

Table 6-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Harrison-001	Angelo Cifeli Drive Drainage Improvements	Coastal Storm, Flood	Town Engineer, Harrison Redevelop ment Agency	Problem: The Angelo Cifeli Drive Drainage Area currently has a combined sewer system with inadequate drainage capacity which leads to frequent localized flooding events. Solution: Separation of combined sewer into separate sanitary and stormwater sewers will help reduce localized flooding by increased drainage capacity	1. In progress 2. The project remains in conceptual design with preliminary drainage evaluation for design scope; the Town's limited capacity and capability to take on this project has limited project implementation. The Town is trying to identify additional funding sources for this project for implementation.	1. Include 2. Keep as is 3. N/A
2020-Harrison-002	Bergen Street Drainage	Coastal Storm, Flood	Town Engineer	Problem: The Bergen Street Drainage Area currently has a combined sewer system with inadequate drainage capacity which leads to frequent localized flooding events. Solution: Separation of combined sewer into separate sanitary and stormwater sewers will help reduce localized flooding by increased drainage capacity	1. In progress 2. The project remains in conceptual design with preliminary drainage evaluation for design scope; the Town's limited capacity and capability to take on this project has limited project implementation. The Town is trying to identify additional funding sources for this project for implementation.	1. Include 2. Keep as is 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Harrison-003	Repetitive Loss Properties	Flood, Severe Weather	Town Engineer/FPA, Town Administration	Problem: There are 3 repetitive loss properties in the Town of Harrison. These 3 properties have been repetitively flooded as documented by paid NFIP claims. Solution: Conduct outreach to these and other flood prone property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property owner information and develop a FEMA grant application and BCA to obtain funding to implement mitigation measures.	1. Ongoing capability 2. Town will continue to conduct outreach to flood-prone property owners and inform of viable mitigation alternatives; mitigation action has been impacted due to limited capacity and capability in the Town.	1. Include 2. Keep as is 3. N/A
2020-Harrison-004	Flood-Proof Critical Facilities	Flood, Severe Weather	Town Engineer/FPA, Town Administration	Problem: Harrison DPW Facility is an identified critical facility located in the 1% and 0.2% annual chance flood zone. Solution: The Town will conduct a feasibility study to determine if this facility can be mitigated and what alternatives are available. The Town will evaluate, select an action and implement if feasible, to mitigate this facility up to a 0.2% annual chance flood event.	1. In progress 2. The Town is currently evaluating funding opportunities and determine scope of work for this feasibility study. Project is still in development.	1. Include 2.Keep as is 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Harrison-005	Outreach to Floodprone Critical Facilities	Flood, Severe Weather	Town Engineer/FPA, Town Administration	Problem: The Cresthill Academy Harrison, Harrison PATH Station, Public Service Propane Storage, Harrison PATH Substation, PATH Maintenance, and Sprint Switching Center are identified critical facilities located on the 1% and 0.2% annual chance flood zones. Solution: The FPA will conduct outreach to the private facility managers to alert them of their exposure to flooding and possible mitigation actions.	1. Ongoing capability 2. Town will continue to conduct outreach to flood-prone critical facilities and inform of viable mitigation alternatives; mitigation action has been impacted due to limited capacity and capability in the Town.	1. Include 2. Keep as is 3. N/A

6.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Harrison participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Harrison would like to pursue in the future to reduce the effects of hazards. The actions 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 Town priorities.

Table 6-18 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 6-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 6-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X				X					X
Drought	X				X					X
Extreme Temperatures	X				X					X
Flood	X				X					X
Geological Hazards	X			X	X					X
Severe Weather	X				X					X
Severe Winter Weather	X				X					X
Wildfire	X				X	X				X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 6-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-Harrison-001	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	**13**	**High**
2025-Harrison-002	Flood Mitigation Interest	1	1	1	1	1	1	0	1	1	0	1	1	1	1	**12**	**High**
2025-Harrison-003	Boat Launch Ramp	1	0	1	1	1	0	0	1	1	1	1	1	1	1	**11**	**High**
2025-Harrison-004	Enhance Earthquake Response Capabilities	1	1	1	1	1	0	1	1	1	0	1	1	1	0	**11**	**High**
2025-Harrison-005	Flood-Resilient Emergency Response	1	1	1	1	1	0	0	1	1	1	1	1	1	1	**12**	**High**
2025-Harrison-006	Improve Wildfire Preparedness and Suppression Capabilities	1	1	1	1	1	1	1	1	1	0	1	1	1	1	**13**	**High**
2025-Harrison-007	Angelo Cifeli Drive Drainage Improvements	0	1	1	1	1	0	0	0	1	1	1	-1	0	0	**7**	**Medium**
2025-Harrison-008	Bergen Street Drainage	1	1	1	1	1	0	0	1	1	1	1	-1	0	0	**9**	**Medium**
2025-Harrison-009	Repetitive Loss Properties	1	1	1	1	1	0	0	1	1	1	1	1	0	1	**11**	**High**
2025-Harrison-010	Flood-Proof Critical Facilities	1	1	1	1	1	0	0	0	1	1	1	1	1	1	**11**	**High**
2025-Harrison-011	Outreach Floodprone Critical Facilities	0	1	1	1	1	1	0	0	1	1	1	1	1	0	**10**	**Medium**

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

Action 2025-Harrison-001. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	Town OEM, Town DPW
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
Description of the Solution:	The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 *Developing a Substantial Damage Management Plan* (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	3, 6
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
Impact on Capabilities:	This action improves disaster recovery capabilities.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
Mitigation Category	Local Plans and Regulations
CRS Category	Emergency Services, Preventative Measure
Priority	High

Alternatives	Action	Evaluation
	No Action	-
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements

Action 2025-Harrison-002. Flood Mitigation Interest

Lead Agency:	Floodplain Administrator
Supporting Agencies:	Town Administration
Hazards of Concern:	Flood
Description of the Problem:	The Town does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Without this information, the Town does not have a streamlined way to assess overall trends in damages/impacts to these properties to determine properties of the highest risk of flood damage. It also does not track communications with property owners or the implementation or interest in potential mitigation efforts.
Description of the Solution:	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.
Estimated Cost:	Staff time, Low
Potential Funding Sources:	Town Budget, FMA, HMGP
Implementation Timeline:	Within 2 years
Goals Met:	
Benefits:	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.
Impact on Socially Vulnerable Populations:	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.
Impact on Future Development:	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.
Impact on Critical Facilities/Lifelines:	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.
Impact on Capabilities:	This action will create a new Town capability, while enhancing its current NFIP 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. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	High

Alternatives	Action	Evaluation
	No action	Current problem remains
	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application
	Wait for information from the State on flood-damaged properties	May be a delay in notice

Action 2025-Harrison-003. Boat Launch Ramp

Lead Agency:	Harrison Fire Department	
Supporting Agencies:	-	
Hazards of Concern:	Dam Failure, Severe Weather	
Description of the Problem:	Although the Harrison Fire Department is well-trained and equipped to respond to flooding events, and the jurisdiction can manage a 6-foot storm surge with only minor to moderate flooding, the Town lacks a boat launch ramp. This absence limits emergency response capabilities on the river, particularly in the event of a Dundee Dam failure, where swift water access could be essential. The primary obstacle to addressing this vulnerability is insufficient funding for the construction of a boat launch.	
Description of the Solution:	To enhance flood response capabilities and ensure rapid deployment of water rescue and evacuation operations, the Town should prioritize the development of a boat launch ramp within its jurisdiction. This project would leverage the existing strengths of the Harrison Fire Department and improve overall resilience to dam-related flooding. The Town would pursue state and federal grant opportunities, such as FEMA's Hazard Mitigation Grant Program (HMGP), and explore public-private partnerships to overcome funding barriers and implement this critical infrastructure improvement.	
Estimated Cost:	High	
Potential Funding Sources:	Town Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,6,7	
Benefits:	A boat launch ramp will enable quicker, safer river access for emergency responders, improve rescue coordination, and strengthen community safety and preparedness.	
Impact on Socially Vulnerable Populations:	Enables quicker rescue and evacuation of residents in low-income or mobility-challenged communities who may be disproportionately affected by flooding.	
Impact on Future Development:	N/A	
Impact on Critical Facilities/Lifelines:	Enhances continuity of operations for emergency services during flood events.	
Impact on Capabilities:	Strengthens local response and recovery capabilities.	
Climate Change Considerations:	Supports adaptive infrastructure in response to rising water levels and extreme weather.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Mutual Aid	Delayed response times
	Temporary Launch Platform	Not durable, frequent setup and maintenance

Action 2025-Harrison-004. Enhance Earthquake Response Capabilities

Lead Agency:	Town OEM
Supporting Agencies:	Town Administration
Hazards of Concern:	Geological Hazards
Description of the Problem:	Although earthquakes are not a major concern for the Town and past experiences have been limited to minor tremors, the Town is not currently trained or equipped to respond to building collapse or conduct heavy rescue operations. This gap in preparedness poses a risk in the event of a moderate or unexpected seismic event. Key obstacles include limited manpower, lack of training, insufficient equipment, and funding constraints.
Description of the Solution:	The Town will implement a phased strategy to build capacity for structural collapse and heavy rescue response. This includes pursuing grant funding for equipment, and enrolling emergency personnel in training. These steps will improve readiness for low-probability but high-impact earthquake scenarios.
Estimated Cost:	High
Potential Funding Sources:	Town Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,6,7
Benefits:	Improving safety, speeding response to building collapses, boosting emergency readiness, and supporting regional disaster efforts.
Impact on Socially Vulnerable Populations:	Ensures equitable rescue capabilities for residents in older or poorly constructed buildings, which may be more vulnerable to collapse.
Impact on Future Development:	Encourages adoption of seismic safety standards in new construction.
Impact on Critical Facilities/Lifelines:	Supports continuity of operations for essential services during seismic events.
Impact on Capabilities:	Builds specialized rescue capacity within the Town.
Climate Change Considerations:	While earthquakes are not climate-driven, this action supports multi-hazard preparedness by improving response capabilities that may also be useful in other disasters.
Mitigation Category	Education and Awareness Programs
CRS Category	Emergency Services
Priority	High

Alternatives

Action	Evaluation
No Action	-
Mutual Aid	Delay in response, or lack in specialized capabilities
Focus solely on prevention and building code enforcement	Doesn't address the current lack of capabilities

Action 2025-Harrison-005. Flood-Resilient Emergency Response

Lead Agency:	Harrison Fire Department
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Despite the Town's strong flood response capabilities, including certified swift water rescue personnel and additional rescue boats. There is no firehouse or rescue facility located on the side of Town most vulnerable to flooding. This area is further isolated by railroad lines, which can become impassable during flood events, delaying emergency response. Additionally, the absence of a boat launch ramp in this area limits the ability to deploy water rescue operations efficiently.
Description of the Solution:	To address the vulnerability of limited emergency access and response in the Town's most flood-prone area, the Town will conduct a feasibility assessment to determine the most effective solution to mitigate flooding for these critical facilities and community lifelines. This assessment will explore options such as constructing a flood-resilient emergency response substation, installing a boat launch ramp, or implementing other infrastructure improvements. The goal is to identify a cost-effective, sustainable approach that enhances emergency response capabilities while overcoming access challenges posed by the railroad lines.
Estimated Cost:	Medium
Potential Funding Sources:	Town Budget, HMGP
Implementation Timeline:	1-5 years
Goals Met:	1,6,7
Benefits:	This project will enable faster emergency response in high-risk areas, reduce flood-related risks, strengthen community infrastructure, and build public trust in preparedness efforts.
Impact on Socially Vulnerable Populations:	Ensures timely rescue and support for residents in flood-prone, potentially underserved areas.
Impact on Future Development:	Encourages resilient development in vulnerable areas.
Impact on Critical Facilities/Lifelines:	Enhances continuity of operations for emergency services during disasters.
Impact on Capabilities:	Expands operational reach of emergency services.
Climate Change Considerations:	Supports adaptive infrastructure and long-term resilience planning.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Emergency Services
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Contracting private water rescue services	Delays, coordination challenges, and reliability issues
	Pre-positioning equipment	Response would still be delayed

Action 2025-Harrison-006. Improve Wildfire Preparedness and Suppression Capabilities

Lead Agency:	Harrison Fire Department
Supporting Agencies:	-
Hazards of Concern:	Wildfire
Description of the Problem:	The Town is adjacent to the Meadowlands, an area with significant brush and vegetation that poses a wildfire risk. A major brush fire could threaten public safety, degrade air quality, and disrupt daily life. However, the Town currently faces key challenges in responding to such events, including limited manpower, insufficient funding, inadequate water supply for suppression, and a lack of specialized equipment.
Description of the Solution:	To address these vulnerabilities, the Town will initiate a wildfire preparedness and suppression enhancement plan. This includes conducting a needs assessment to identify equipment and staffing gaps, exploring water supply solutions (e.g., dry hydrants or water tanks), and pursuing grant funding for brush fire suppression tools and training. The plan will also explore partnerships with regional fire services and environmental agencies to improve coordination and resource sharing.
Estimated Cost:	Medium
Potential Funding Sources:	Town Budget
Implementation Timeline:	1-5 years
Goals Met:	1,6,7
Benefits:	This project will enable faster emergency response in high-risk areas, reduce flood-related risks, strengthen community infrastructure, and build public trust in preparedness efforts.
Impact on Socially Vulnerable Populations:	This initiative will have a positive impact by protecting residents with respiratory conditions or limited mobility, who are especially vulnerable to wildfire smoke and may face challenges during evacuation.
Impact on Future Development:	The project will encourage fire-resilient land use planning near the Meadowlands and may lead to updates in zoning regulations and building codes to better address wildfire risks in fire-prone areas.
Impact on Critical Facilities/Lifelines:	It will enhance the protection of critical facilities such as schools, utilities, and transportation routes located near the wildland-urban interface, ensuring they remain operational and accessible during wildfire events.
Impact on Capabilities:	The action will build local capacity for wildfire response, reduce reliance on mutual aid for initial suppression efforts, and strengthen coordination between local and regional emergency response agencies.
Climate Change Considerations:	This mitigation effort addresses the growing wildfire risk associated with hotter, drier conditions due to climate change. It also supports long-term adaptation by preparing the Town for changes in fire behavior and frequency.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Emergency Services, Property Protection
Priority	High

Alternatives

Action	Evaluation
No Action	-
Relying Solely on Mutual Aid	May not be timely or sufficient during a fast-moving brush fire.
Installing fire breaks or vegetation barriers only	Can help slow fire spread, but not replace the need for trained personnel, equipment, or water supply.

Action 2025-Harrison-007.Angelo Cifeli Drive Drainage Improvements

Lead Agency:	Town Engineer	
Supporting Agencies:	Harrison Redevelopment Agency	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The Angelo Cifeli Drive Drainage Area currently has a combined sewer system with inadequate drainage capacity which leads to frequent localized flooding events.	
Description of the Solution:	Separation of combined sewer into separate sanitary and stormwater sewers will help reduce localized flooding by increased drainage capacity.	
Estimated Cost:	High	
Potential Funding Sources:	Capital Improvement/Private Funding	
Implementation Timeline:	5 or more years	
Goals Met:	1,2,3,6	
Benefits:	Separation increases drainage capacity, reducing localized flooding and improving water quality.	
Impact on Socially Vulnerable Populations:	Reduces flood-related health and property risks for residents who may lack resources to recover from repeated damage.	
Impact on Future Development:	Supports sustainable growth by improving infrastructure reliability and compliance with modern stormwater standards.	
Impact on Critical Facilities/Lifelines:	Enhances the resilience of roads, utilities, and emergency access routes in the area.	
Impact on Capabilities:	Strengthens the Town's stormwater management system and reduces strain on emergency services during flood events.	
Climate Change Considerations:	Prepares the area for more intense rainfall and storm events expected with climate change.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Property Protection	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Install larger catch basins or inlets	Temporary fix
	Increase pumping capacity	Expensive to maintain

Action 2025-Harrison-008. Bergen Street Drainage

Lead Agency:	Town Engineer
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Storm
Description of the Problem:	The Bergen Street Drainage Area currently has a combined sewer system with inadequate drainage capacity which leads to frequent localized flooding events.
Description of the Solution:	Separation of combined sewer into separate sanitary and stormwater sewers will help reduce localized flooding by increased drainage capacity.
Estimated Cost:	High
Potential Funding Sources:	Capital Improvement, NJEIT
Implementation Timeline:	5 or more years
Goals Met:	1,2,3,6
Benefits:	Separation increases drainage capacity, reducing localized flooding and improving water quality.
Impact on Socially Vulnerable Populations:	Reduces flood-related health and property risks for residents who may lack resources to recover from repeated damage.
Impact on Future Development:	Supports sustainable growth by improving infrastructure reliability and compliance with modern stormwater standards.
Impact on Critical Facilities/Lifelines:	Enhances the resilience of roads, utilities, and emergency access routes in the area.
Impact on Capabilities:	Strengthens the Town's stormwater management system and reduces strain on emergency services during flood events.
Climate Change Considerations:	Prepares the area for more intense rainfall and storm events expected with climate change.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Property Protection
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Install larger catch basins or inlets	Temporary fix
Increase pumping capacity	Expensive to maintain

Action 2025-Harrison-009. Repetitive Loss Properties

Lead Agency:	Town Engineer
Supporting Agencies:	Town Administration, FPA
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	There are 3 repetitive loss properties in the Town of Harrison. These 3 properties have been repetitively flooded as documented by paid NFIP claims.
Description of the Solution:	Conduct outreach to these and other flood prone property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property owner information and develop a FEMA grant application and BCA to obtain funding to implement mitigation measures.
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP, FMA
Implementation Timeline:	1-5 years
Goals Met:	1,2,5
Benefits:	Helps reduce future flood damage and financial losses by guiding property owners toward effective mitigation solutions.
Impact on Socially Vulnerable Populations:	Supports residents who may lack resources to recover from repeated flood events by connecting them with funding and technical assistance.
Impact on Future Development:	Encourages resilient redevelopment and may reduce insurance premiums and regulatory burdens.
Impact on Critical Facilities/Lifelines:	While not directly targeting critical infrastructure, it reduces strain on emergency services and utilities during flood events.
Impact on Capabilities:	Builds local capacity to engage with FEMA programs and implement property-level flood mitigation.
Climate Change Considerations:	Addresses increasing flood risk due to more frequent and intense storms by promoting long-term adaptation.
Mitigation Category	Education and Awareness Programs, Structure and Infrastructure Project
CRS Category	Preventative Measures, Property Protection
Priority	High

Alternatives

Action	Evaluation
No Action	-
Wait for property owners to apply for assistance	Many may lack the knowledge of available programs to assist with the application process

Action 2025-Harrison-010. Flood-Proof Critical Facilities

Lead Agency:	Town Engineer	
Supporting Agencies:	Town Administration, FPA	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	Harrison DPW Facility is an identified critical facility located in the 1- and 0.2-percent annual chance flood zone.	
Description of the Solution:	The Town will conduct a feasibility study to determine if this facility can be mitigated and what alternatives are available. The Town will evaluate, select an action and implement if feasible, to mitigate this facility up to a 0.2- percent annual chance flood event.	
Estimated Cost:	High	
Potential Funding Sources:	HMGP, FMA, Town Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6,	
Benefits:	Ensures continuity of operations of the DPW facility	
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders and emergency managers to maintain critical services that socially vulnerable populations rely on.	
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.	
Impact on Critical Facilities/Lifelines:	This action will protect DPW which is a critical facility, maintaining the critical services that it provides.	
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.	
Climate Change Considerations:	This action addresses anticipated increases in flooding frequency and severity through protection to the 500-year (0.2-percent annual chance) flood level.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Emergency Services, Property Protection	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area
	Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.

Action 2025-Harrison-011. Outreach to Floodprone Critical Facilities

Lead Agency:	Town Engineer
Supporting Agencies:	Town Administration, FPA
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	The Cresthill Academy Harrison, Harrison PATH Station, Public Service Propane Storage, Harrison PATH Substation, PATH Maintenance, and Sprint Switching Center are identified critical facilities located on the 1% and 0.2% annual chance flood zones.
Description of the Solution:	The FPA will conduct outreach to the private facility managers to alert them of their exposure to flooding and possible mitigation actions.
Estimated Cost:	Low
Potential Funding Sources:	Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	2,5,6
Benefits:	This action will improve the current public education and outreach program in the Town by including discussions on disaster preparedness and hazard mitigation to facility managers, which will contribute to the resiliency of the Town.
Impact on Socially Vulnerable Populations:	Not applicable
Impact on Future Development:	Not applicable
Impact on Critical Facilities/Lifelines:	Critical facilities or lifelines would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these facilities becoming more resilient, this action would contribute to their continuity of operations.
Impact on Capabilities:	This action would build upon the Town's already existing public education and outreach program.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate-related disaster events. This action will inform facility managers of how to reduce risk from hazards and how climate change may exacerbate those risks.
Mitigation Category	Education and Awareness Programs
CRS Category	Public Information
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Town
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving guidance

7. CITY OF HOBOKEN

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the City of Hoboken with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Hoboken, describes who participated in the planning process, assesses Hoboken's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

7.1 Hazard Mitigation Planning Team

The City of Hoboken identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many City departments. The Capital Planning Manager represented the community on the Hudson County HMP Planning Partnership and Steering Committee and supported the local planning process 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.

Table 7-1 summarizes City officials who participated in the development of the annex and in what capacity. Additional documentation of the City's planning activities through Planning Partnership meetings is included in Volume I.

Table 7-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: RJ Theofield, Capital Planning Manager Address: 94 Washington St., Hoboken, NJ 07030 Phone Number: (201) 390-3769 Email: rtheofield@hobokennj.gov	Name/Title: Caleb Stratton, Resilience Officer/Assistant Business Administrator Address: 94 Washington St., Hoboken, NJ 07030 Phone Number: 201-420-2000 Email: cstratton@hobokennj.gov
National Flood Insurance Program Floodplain Administrator	
Name/Title: Ann Holzman, Zoning Officer/FPA Address: 94 Washington St., Hoboken, NJ 07030 Phone Number: 201-420-2000 Email: aholzman@hobokennj.gov	
Additional Contributors	
Name/Title: RJ Theofield, Capital Planning Manager Method of Participation: Provided key input in the planning process by completing worksheets and attending meetings	
Name/Title: Caleb Stratton, Resilience Officer/Assistant Business Administrator Method of Participation: Provided key input in the planning process by completing worksheets and attending meetings	
Name/Title: Ann Holzman, Zoning Officer/FPA Method of Participation: Assisting in the planning process	

7.2 Community Profile

7.2.1 Brief History

The City of Hoboken has a rich and diverse history dating back to its origins as a Lenape settlement before becoming part of the Dutch colony of New Netherland in the 17th century. In 1849, Hoboken was originally formed as a township, from portions of North Bergen Township, and was officially incorporated as a City in 1855. In the 19th century, it emerged as a bustling port and industrial hub, home to the first recorded baseball game in 1846 and the birthplace of Frank Sinatra in 1915. Over the centuries, the City has transformed from a rural farmland to a bustling urban center.

7.2.2 Location

The City of Hoboken in located along the Hudson River in the eastern portion of Hudson County. It shares it borders with the Township of Weehawken to the north, Union City and Jersey City to the west, Jersey City to the south and the Hudson River to the east.

7.2.3 Governing Body Format

The City of Hoboken is governed by a Mayor and City Council made up of nine members. This governing body will be responsible for the adoption and implementation of this plan.

7.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for Hoboken was 60,419, a 11 percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 6.8 percent of the population is 5 years of age or younger, 6.4 percent is 65 years of age or older, 4.3 percent is non-English speaking, 5.1 percent is below the poverty threshold, and 7.5 percent is considered disabled.

7.2.4.1 ALICE in Hudson County

ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. While conditions have improved for some households, many continue to struggle, especially as wages fail to keep pace with the rising cost of household essentials (housing, child care, food, transportation, health care, and a basic smartphone plan). Households below the ALICE Threshold – ALICE households plus those in poverty – can't afford the essentials.

According to 2021 Point-in-Time-Data from ALICE, 24 percent of the 292,000 households in Hudson County are ALICE households (compared to the state average of 26 percent). The median household income in Hudson is $80,329, and the County sees a labor force participation rate of 69 percent. Hudson County faces low household income compared to the state average of $89,296 and while the County does carry a 3 percent higher labor participation rate compared to state numbers, 15 percent of Hudson households live in poverty.

7.3 Jurisdictional Capability Assessment and Integration

Hoboken performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

7.3.1 Planning and Regulatory Capability and Integration

Table 7-2 summarizes the planning and regulatory tools that are available to Hoboken.

Table 7-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	State Uniform Construction Code Chapter 86 – Uniform Construction Code	State and Local	Construction Code Office
How has or will this be integrated with the HMP and how does this reduce risk? Building codes establish standards and regulations for construction and occupancy including structural integrity and fire safety. Adherence to building codes ensures that structures are designed and built to meet current safety standards, minimizing the risk of injury to life or property as a result of structural or systemic failure. State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14. Chapter 15 of Building and Housing. Adopted Uniform Construction Code.				
Zoning/Land Use Code	Yes	Chapter 196 - Zoning	Local	Zoning Office
How has or will this be integrated with the HMP and how does this reduce risk? Promotes the health, safety, comfort and general welfare of the City of Hoboken and its people; advance the fundamental elements of the City's Master Plan; advance the purposes of the Municipal Land Use Law set forth in N.J.S.A. 40:55D-2; and ensure that all land development in the City meets the applicable requirements of federal, state and local laws. In order to fulfill this purpose, it is the intent of this chapter to provide regulations that are consistent with the Master Plan, that implement the Land Use Plan set fourth therein, and that advance the general concepts and recommendations of the plan, as follows: a. Encourage sustainability through focused economic development; flood risk management; environmentally sensitive and energy-efficient design; conservation of natural resources; and diversification of uses, building types and affordability. b. Provide adequate light, air and convenience of access, through the regulation of bulk, height, massing, scale, and density. c. Promote physical and visual connections between the waterfront and the rest of the City and between the Palisades and City. d. Enhance Hoboken's historic character through the protection of buildings and districts of historic significance, while also encouraging design innovation in adaptive reuse and new construction. e. Maintain an appropriate mix of land uses in each zone district. f. Promote the provision of public spaces, parks, open space and greenery. g. Balance circulation and parking needs with those of pedestrians, cyclists, and transit users. h. Promote Hoboken's unique transportation resources to drive economic growth. i. Coordinate development policies and objectives with Hudson County, neighboring municipalities, agencies and institutions.			
Subdivision Code	Yes	Chapter 34 – Subdivision of Land	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? Provides rules, regulations, and standards to guide land subdivision in the City of Hoboken in order to promote the public health, safety, convenience, and general welfare of the municipality. It shall be administered to insure the orderly growth and development, the conservation, protection and proper use of land and adequate provision for circulation, utilities, and services.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Site Plan Code	Yes	Chapter 196, Article 26 – Site Plan Review	Local and County	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? Site plan review shall be required for: a. New construction or substantial alteration resulting in 10 or more dwelling units; b. New nonresidential structures with more than 5,000 square feet of floor area; c. Additions and alterations to existing, nonresidential structures increasing by 50% or more the gross floor area or building coverage existing at the time of the passage of this section; and d. Major parking facilities. e. Wireless telecommunications tower				
Stormwater Management Code	Yes	Chapter 166 – Stormwater Management	Local	Engineering Division
How has or will this be integrated with the HMP and how does this reduce risk? Flood control, groundwater recharge, and pollutant reduction through the use of stormwater management measures, including green infrastructure best management practices (GI BMPs) and nonstructural stormwater management strategies. GI BMPs and low impact development (LID) should be utilized to meet the goal of maintaining natural hydrology to reduce stormwater runoff volume, reduce erosion, encourage infiltration and groundwater recharge, and reduce pollution. GI BMPs and LID should be developed based upon physical site conditions and the origin, nature and the anticipated quantity, or amount, of potential pollutants. Multiple stormwater management BMPs may be necessary to achieve the established performance standards for water quality, quantity, and groundwater recharge.				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?
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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:
• 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Growth Management	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Flood Damage Prevention Ordinance	Yes	Chapter 104 – Flood Damage Prevention	Federal, State, County and Local	Zoning Office
How has or will this be integrated with the HMP and how does this reduce risk? It is the purpose of this chapter to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed: a. To protect human life and health; b. To minimize expenditure of public money for costly flood-control projects; c. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; d. To minimize prolonged business interruptions; e. To minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone and sewer lines, streets, and bridges, located in areas of special flood hazard; f. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas; g. To ensure that potential buyers are notified that property is in an area of special flood hazard; and h. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. The ordinance is not the model code coordinated ordinance and will require update.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	Yes	Chapter 59, Article VIII Sections 53-55 – Office of Emergency Management	Local	Hoboken OEM
How has or will this be integrated with the HMP and how does this reduce risk? This ordinance establishes the Office of Emergency Management and its basic subsequent functions. The Office of Emergency Management's basic goal is the maximum survival of the general population in the event of natural disaster, man-made incident or attack. Emergency management is municipal government operating during an emergency, e.g. war, flood, hazardous material spill, nuclear accident, etc., to protect the lives and property of its citizens.				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Other	Yes	Chapter 163 – Sewers and Disposal	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? Sets requirements for discharges into wastewater collection and treatment system and enables the North Hudson Sewage Authority to comply with applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and any other discharge criteria. This ordinance places limitations on wastewater discharge regarding contaminants, wastewater strength, storm drainage and groundwater and discharge of unpolluted water. This ordinance refers to the uniform construction code and the flood damage prevention ordinance.				
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	City of Hoboken Master Plan Reexamination Report, 2018	Local	Community Development Department
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of the Master Plan, stated in N.J.S.A. 40:55D-28 a., is “to guide the use of lands within the municipality in a manner which protects public health and safety and promotes the general welfare." The master plan documents community-established principles, guidelines, and strategies for the orderly and balanced future economic, social, physical, environmental, and fiscal development of the City.				
Capital Improvement Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Disaster Debris Management Plan	Yes	Debris Management Plan and Snow Removal Plan	Local	Parks, Recreation, and Public Works Department
How has or will this be integrated with the HMP and how does this reduce risk? Ensures that debris is cleared quickly after a disaster, reducing risks like blocked emergency routes, fire hazards, and public health threats from contaminated materials.				
Floodplain Management or Watershed Plan	Yes	Rebuild by Design EIS and Feasibility Study	State	NJDEP
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of this project is to reduce the flood risk to flood prone areas within the Study Area, which comprises the entire City of Hoboken, and adjacent areas of Weehawken and Jersey City. The Project intends to minimize the impacts from surge and rainfall flood events on the community, including adverse impacts to public health, while providing benefits that will enhance the urban condition while recognizing the unique challenges that exist within a highly developed urban area.				
Stormwater Management Plan	Yes	Municipal Stormwater Management Plan, 2019	Local	Climate Action/Engineering Office
How has or will this be integrated with the HMP and how does this reduce risk? The plan aims to minimize pollutants in stormwater runoff from new and existing developments in order to restore, enhance and maintain the chemical, physical and biological integrity of the waters of the state, to protect public health, to safeguard fish and aquatic life and scenic and ecological values and to enhance the domestic, municipal, recreational, industrial and other uses.				
Stormwater Pollution Prevention Plan	Yes	SWPPP, adopted December 6, 2023	Local	Climate Action/Engineering Office
How has or will this be integrated with the HMP and how does this reduce risk? Outlines how to manage runoff and prevent pollutants from entering waterways during storms. When aligned with the HMP, it ensures that stormwater infrastructure is designed to handle both pollution control and flood mitigation.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	Yes	Hoboken Street Design Guide/Complete Streets Policy/Vision Zero Action Plan	State and Local	NJTPA and Transportation and Parking Department
How has or will this be integrated with the HMP and how does this reduce risk? The Hoboken Street Design Guide provides information on the City's adopted street typology and contains specific guidance on the appropriate bicycle, pedestrian, transit, and travel way treatments to apply within each street type. The guide will enable planners, engineers, and policy makers to identify context-sensitive street elements that are consistent with complete streets best practices and suitable for Hoboken's unique context, while incorporating green infrastructure to address resiliency. The overall goal of this project is to support development of streets that are safe and accessible for all users.				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	Yes	Hoboken Climate Action Plan and Greenhouse Gas Emission Inventories, 2019	Local	Climate Action and Innovation Department
How has or will this be integrated with the HMP and how does this reduce risk? Identified benefits include, but are not limited to: a. Enhanced economic growth through green job creation b. Increased eco-visibility and resiliency for existing and future corporate facilities c. Reduced energy costs by increasing energy efficiencies d. Reduced base-load energy demands resulting in less electrical generation e. Reduced property damage and business interruption resulting in reduced insurance costs f. Reduced maintenance costs for LED lighting systems and electric vehicles g. Increased property values and related tax revenues due to improvements h. Improved air quality resulting in better health outcomes for community members i. Heightened community awareness and support from positive engagement				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	City of Hoboken Emergency Operations Plan, 2023	Local	Hoboken OEM
How has or will this be integrated with the HMP and how does this reduce risk? Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years.				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Strategic Recovery Planning Report	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

7.3.2 Development and Permitting Capability

Table 7-3 summarizes the capabilities of Hoboken to oversee and track development.

Table 7-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	Yes N/A	Community Development and Construction Code
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	The City has the ability to track permits by hazard area through Spatial Data Logic (or other future system).
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	Yes N/A	This was done as part of the build out analysis for the land use reexamination in 2018
Describe the level of buildout in your jurisdiction.	N/A	The City is fully built out, with most if not all development being redevelopment.

7.3.3 Administrative and Technical Capability

Table 7-4 summarizes potential staff and personnel resources available to Hoboken and their current responsibilities that contribute to hazard mitigation.

Table 7-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	The Hoboken Planning Board Reviews and acts on site plan and subdivision applications and is responsible for review of the Master Plan.
Zoning Board of Adjustment	Yes	The Zoning Board is to provide an independent body, empowered to grant relief from the strict application of Zoning Regulations (variances), approve certain uses of land (special exceptions), and hear appeals of actions taken by the City.
Planning Department	Yes	The Community Development Department is responsible for overseeing all of the property development in Hoboken. The City's Planning Board and Zoning Board help execute many of these responsibilities. The City's Development Officer also leads development initiatives, designated as Redevelopment Zones, to promote positive growth and success in Hoboken.
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	The mission of the Shade Tree Commission is to help develop, promote, sustain and regulate an effective and safe shade tree program that benefits Hoboken's trees and consequently benefits the environmental, economic and social wellbeing of City residents. The Commission will help sustain healthy trees on City and County streets by pursuing the removal and replacement of all damaged, dead, hazardous or diseased trees, and the pruning of existing trees to foster their health and longevity. In addition, the Commission will communicate to residents and businesses in the City the need to protect and maintain each and every tree. This will be accomplished through education programs and specific projects in Hoboken. Finally, the Commission will promote the addition of as many new trees as possible consistent with the need to ensure that they are installed properly and maintained to extend their life.
Open Space Board/Committee	Yes	Open Space Acquisition and Development
Economic Development Commission/Committee	Yes	The City of Hoboken Special Improvement District (SID) focused on economic development and generates income through a business specific ratable amount
Public Works/Highway Department	Yes	The Department of Parks, Recreation, & Public Works to improve quality of life through operations and maintenance of Hoboken's public spaces. We maintain municipal parks and buildings, collect garbage and recycling, sweep, and plow the streets, and repair potholes. We also enforce the municipal code related to sanitation, recycling, plastic bags, and trees. The Department also oversees the Division of Recreation and facility requests.

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Construction/Building/Code Enforcement Department	Yes	The Construction Code Office administers and enforces the New Jersey State Uniform Construction Code (UCC) by: • Processing permit applications for new and existing building construction • Reviewing applications for compliance with the UCC • Conducting inspections and issuing certificates of occupancy or approval
Emergency Management/Public Safety Department	Yes	The Hoboken Office of Emergency Management (OEM) is dedicated to providing a comprehensive Emergency Management System which coordinates people and resources to protect the lives, property and environment of the City of Hoboken using an "all-hazard" approach through mitigation, preparedness, response and recovery from emergencies and disasters.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	North Hudson SU and Department of Environmental Services
Mutual aid agreements	Yes	Police and Fire – Jersey City and surrounding communities
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	City Employee Handbook
Other	No	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Transportation, Public Safety, Engineering, Community Development, and Climate Action and Innovation
Engineers or professionals trained in building or infrastructure construction practices	Yes	Contracting engineer firms and have resources in house in Transportation, Engineering and Climate Action and Innovation
Planners or engineers with an understanding of natural hazards	Yes	Contracting engineer firms and have resources in house in Transportation, Engineering and Climate Action and Innovation
Staff with expertise or training in benefit/cost analysis	Yes	Engineering, Transportation and Climate Action and Innovation
Professionals trained in conducting damage assessments	Yes	Contract support
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Community Development, Public Safety, Transportation and Climate Action and Innovation
Staff that work with socially vulnerable populations or underserved communities	Yes	The Office of Constituent Services exists to help residents with quality-of-life issues, with a special attention paid to the needs of Hoboken's seniors, low-income tenants, and residents with disabilities. The office coordinates inquiries and requests with City departments and agencies on behalf of residents on a variety of topics including the handling of counseling and referrals for social services, tenant assistance, housing and employment inquiries, various quality-of-life issues, violations of City codes, and general questions regarding available City services.

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Environmental scientists familiar with natural hazards	Yes	Stevens Institute
Surveyors	Yes	On-call engineering firms
Emergency manager	Yes	OEM Coordinator
Grant writers	Yes	Contracted consultant
Resilience Officer	Yes	Business Administration
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

7.3.4 Fiscal Capability

Table 7-5 summarizes financial resources available to Hoboken.

Table 7-5. Fiscal Capabilities

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

7.3.5 Education and Outreach Capability

Table 7-6 summarizes the education and outreach resources available to Hoboken.

Table 7-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Communications Manager and Senior Public Information Assistant
Personnel skilled or trained in website development	Yes	Staff in multiple departments routinely create project websites using existing templates.
Hazard mitigation information available on your website	Yes	Communications Manager and Senior Public Information Assistant
Social media for hazard mitigation education and outreach	Yes	Facebook and X (Formerly Twitter)
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Citizen Advisory Committee, Rebuild by Design Board
Warning systems for hazard events	Yes	The City maintains Facebook and Twitter accounts to update residents on current events. The City also provides Hoboken 311 service where residents can report an issue and follow the status of the issue online. The City also uses the Nixle messaging system to send news updates, event information, and other information to residents via email and text message.
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	Office of Constituent Services
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Zoning Office and Public Safety Division

7.3.6 Community Classifications

Table 7-7 summarizes classifications for community programs available to Hoboken.

Table 7-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Sustainable Jersey	Yes	Silver	September 14, 2023
USGBC LEED for Cities	Yes	Gold	2019
CDP-ICLEI Unified Climate Reporting System	Yes	A	2021, 2022, 2023
Other	No	-	-

N/A = Not applicable

— = Unavailable

7.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 7-8 summarizes the adaptive capacity for each identified hazard of concern and the City'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 7-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Strong
Geological Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

7.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 7-1 is responsible for maintaining this information.

7.4.1 NFIP Statistics

Table 7-9 summarizes the NFIP policy and claim statistics for Hoboken.

Table 7-9. Hoboken NFIP Summary of Policy and Claim Statistics

# Policies	**8,143**
# Claims (Losses)	**2,210**
Total Loss Payments	**$56,236,694.42**
# Repetitive Loss Properties (NFIP definition)	**274**
# Repetitive Loss Properties (FMA definition)	**23**
# Severe Repetitive Loss Properties (NFIP definition)	**0**
# Severe Repetitive Loss Properties (FMA definition)	**23**

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source:FEMA 2024

7.4.2 Flood Vulnerability Summary

Table 7-10 provides a summary of the NFIP program in Hoboken.

Table 7-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Roughly 80% of the municipal land area is in the special flood hazard area.
Do you maintain a list of properties that have been damaged by flooding?	Yes.
Do you maintain a list of property owners interested in flood mitigation?	No.
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	None
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No.
How do you make Substantial Damage determinations?	FEMA Substantial Damage Estimator Tool
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	None.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None.
Do your flood hazard maps adequately address the flood risk within your jurisdiction?	No. Official FEMA map (used for insurance purposes) is from 2006 and outdated. Advisory

NFIP Topic	Comments
If not, state why.	maps are used for new construction and substantial improvements, but they don't incorporate all at-risk structures.
NFIP Compliance	
What local department is responsible for floodplain management?	Zoning Officer.
Are any certified floodplain managers on staff in your jurisdiction?	Yes.
Do you have access to resources to determine possible future flooding conditions from climate change?	Those available from NJDEP.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	There is no 'staff'. Having assistance in the department would allow me to do more outreach and proactive management of at-risk properties.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review, education/outreach, inspections, development application compliance reviews for Planning Board and Zoning Board.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Construction estimates.
What are the barriers to running an effective NFIP program in the community, if any?	NA
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No.
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	NA
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 104.
What is the date that your flood damage prevention ordinance was last amended?	12/18/2013
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Exceeds. Our adopted regulatory map is the ABFE Map issued post-Sandy. We require addition Freeboard on top of that.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	I provide a preliminary review for each application to the Planning Board and Zoning Board evaluating the application's compliance or lack of compliance with the Flood Damage Code. The Board's regularly require amendment of site plans to comply with my review prior to their approval.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No.

7.5 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. Recent and

expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 7-11 through Table 7-13.

Table 7-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2019				
Total Permits	0	16	2	18
Permits within SFHA	0	13	2	15
2020				
Total Permits	0	9	2	11
Permits within SFHA	0	8	2	10
2021				
Total Permits	0	5	1	6
Permits within SFHA	0	5	0	5
2022				
Total Permits	0	9	3	12
Permits within SFHA	0	7	3	10
2023				
Total Permits	0	17	1	18
Permits within SFHA	0	17	1	18

SFHA = Special Flood Hazard Area (1% flood event)

Table 7-12. Recent Major Development and Infrastructure from 2017 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
7 Seventy House	Residential Mixed Use	424 residential units, 1 structure	770 JACKSON ST, Block 80 Lot 1.01	Flood Hazard Zone A	Completed 2019
Wonder Lofts	Residential Mixed Use	89 residential units, 3 structures	720 CLINTON ST, Block 152 Lot 3.01 721 CLINTON ST, Block 159 Lot 7 731 CLINTON ST, Block 159 Lot 8.01	Flood Hazard Zone A	Completed 2022
1425 Hudson Street	Residential Mixed Use	99 residential units, 1 structure	1425 HUDSON ST, Block 264, Lot 3.01	Flood Hazard Zone A	Completed 2020
1000 Maxwell Lane	Residential Mixed Use	58 residential units, 1 structure	1000 MAXWELL LANE, Block 261.02 Lot 1	N/A	Completed 2021

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Edge Adams	Residential Mixed Use	44 residential units, 2 structures	1405 ADAMS/1410 GRAND ST, Block 121 Lot 1.01	Flood Hazard Zone A	Completed 2019
Glass House	Residential Mixed Use	43 residential units, 1 structure	401 JACKSON ST, Block 57 Lot 1.01	Flood Hazard Zone A	Completed 2022
One 15	Residential	27 residential units, 1 structure	115 Grand Street	Flood Hazard Zone A	Completed 2019
Stevens Institute of Technology, University Center Complex	University Dormitory, Student Center	994 beds, 1 structure (2 towers)	CASTLE POINT TERRACE, Block 235 Lot 1	N/A	Completed 2022

** Only location-specific hazard zones or vulnerabilities identified.*

Table 7-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Hoboken Yard Site 2	Residential Mixed Use	389 residential units	Block 139, Lot 1.02	Flood Hazard Zone A	Obtained site plan approval, applying for building permits. Scheduled to begin construction 2024
1500 Clinton Street (North End Site 5)	Residential Mixed Use	383 residential units, 2 structures. Building 5A: 120 residential units Building 5B: 282 residential units	1500 Clinton Street Block 131, Lots 1-30	Flood Hazard Zone A	Obtained site plan approval
1500 Grand Street (North End Site 4)	Residential Mixed Use	420 residential units, 2 structures. Building 4A: 112 residential units Building 4B: 308 residential units	1500 Grand Street Block 130, Lots 1-30	Flood Hazard Zone A	Scheduled for Planning Board Site Plan Review in spring of 2024
Hoboken Urby	Residential Mixed Use	264 residential units, 1 structure	256 Observer Highway Block 1, Lot 1	Flood Hazard Zone A	Obtained site plan approval and building permits, scheduled to begin construction Fall 2024
38 Jackson Street	Residential Mixed Use	123 residential units, 1 structure	38 Jackson Street Block 6, Lot 1	Flood Hazard Zone A	Under construction, expected to be complete 2024

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
930 Monroe Street	Residential Mixed Use	675 residential units, 3 structures	930 Monroe Street Block 92, Lot 1.02	Flood Hazard Zone A	Redevelopment Agreement executed, pending Site Plan submission and approval
Windsor Eden	Residential Mixed Use	60 residential units, 1 structure	601-619 Newark Street Block 3, Lot 3	Flood Hazard Zone A	N/A

7.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Hoboken's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

7.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the City are shown in Figure 7-1 through Figure 7-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Hoboken has significant exposure. The maps show the location of potential new development, where available.

Figure 7-1. Hoboken Hazard Area Extent and Location Map 1

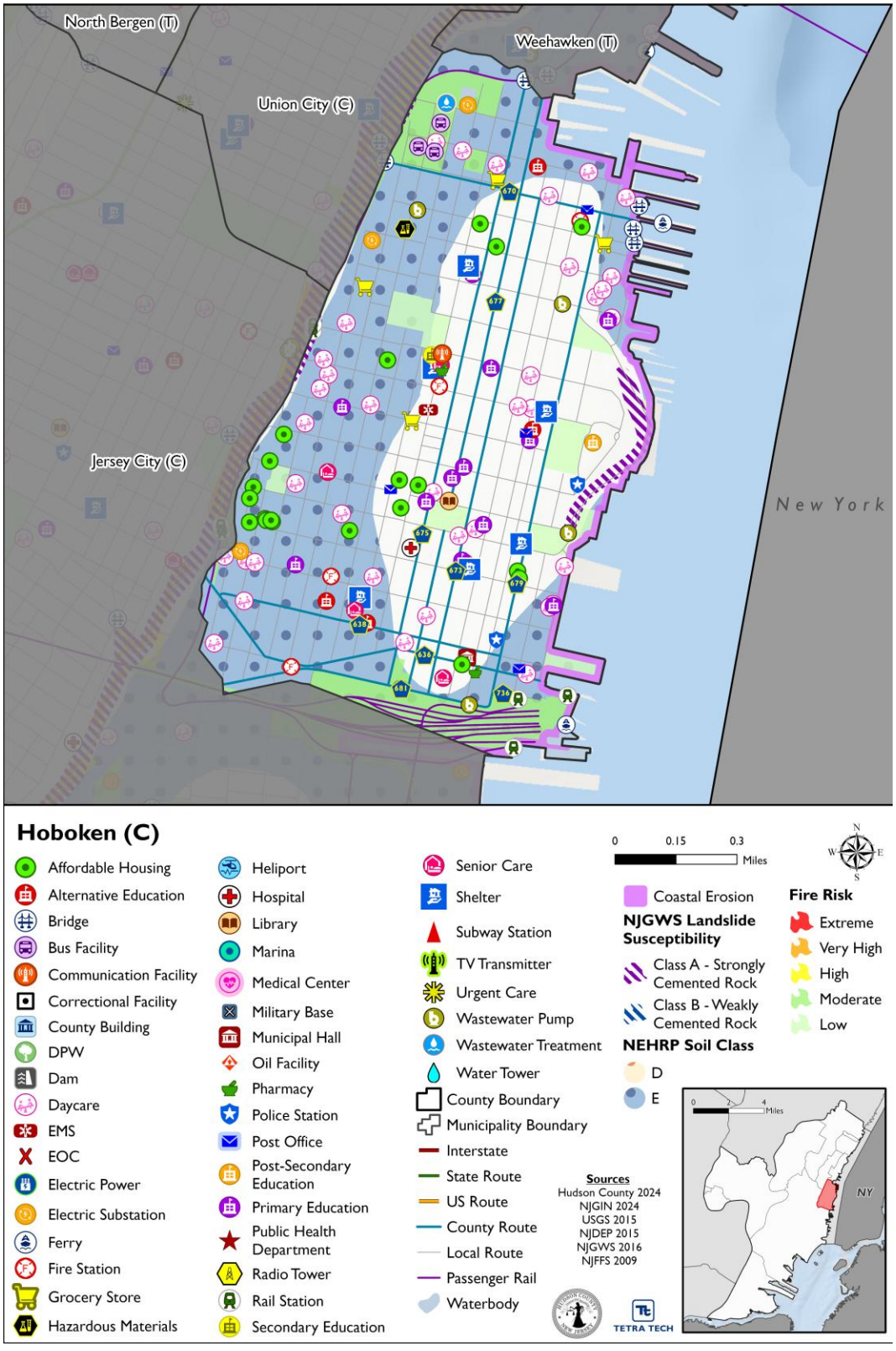


Figure 7-2. Hoboken Hazard Area Extent and Location Map 2

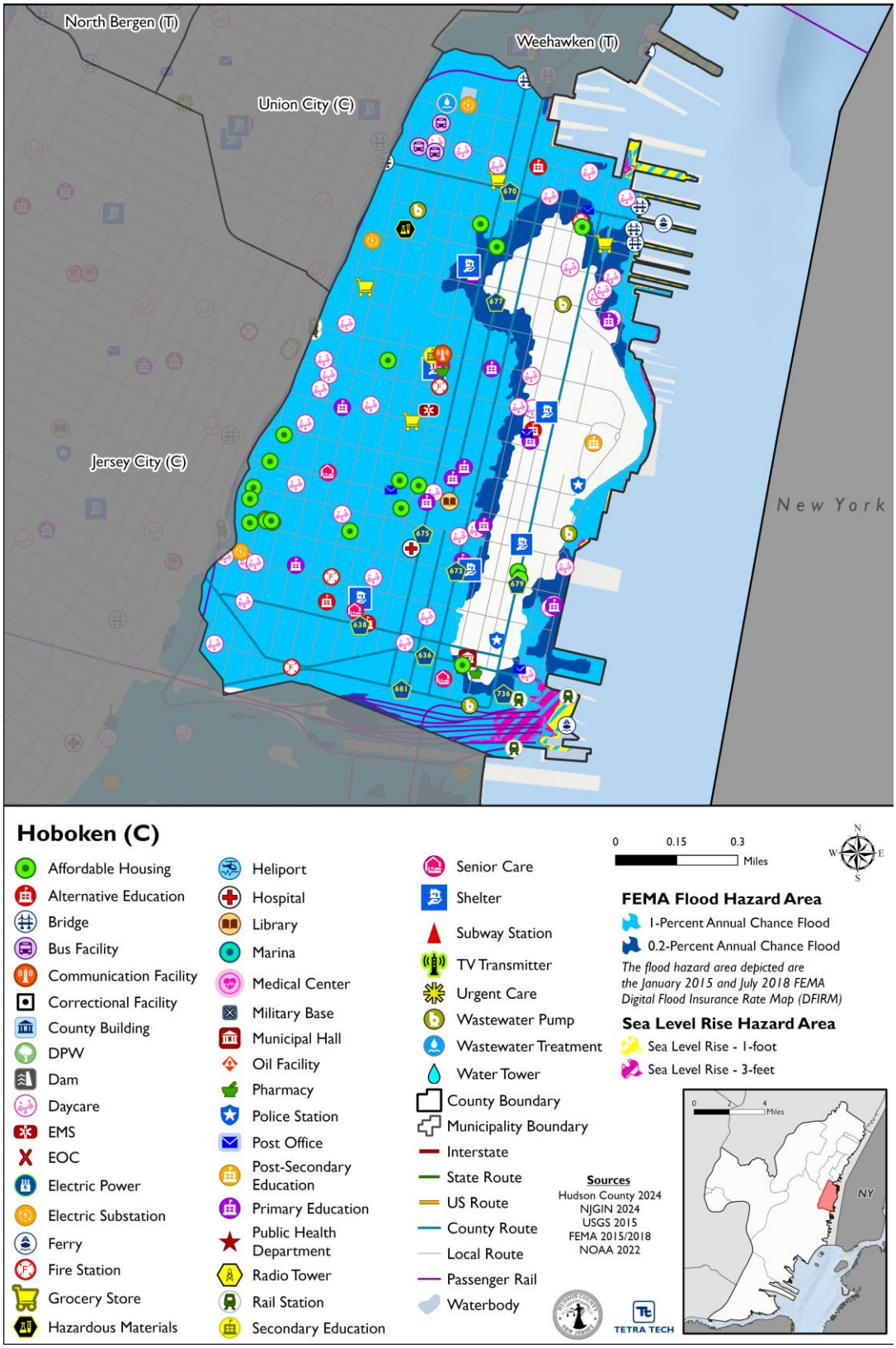
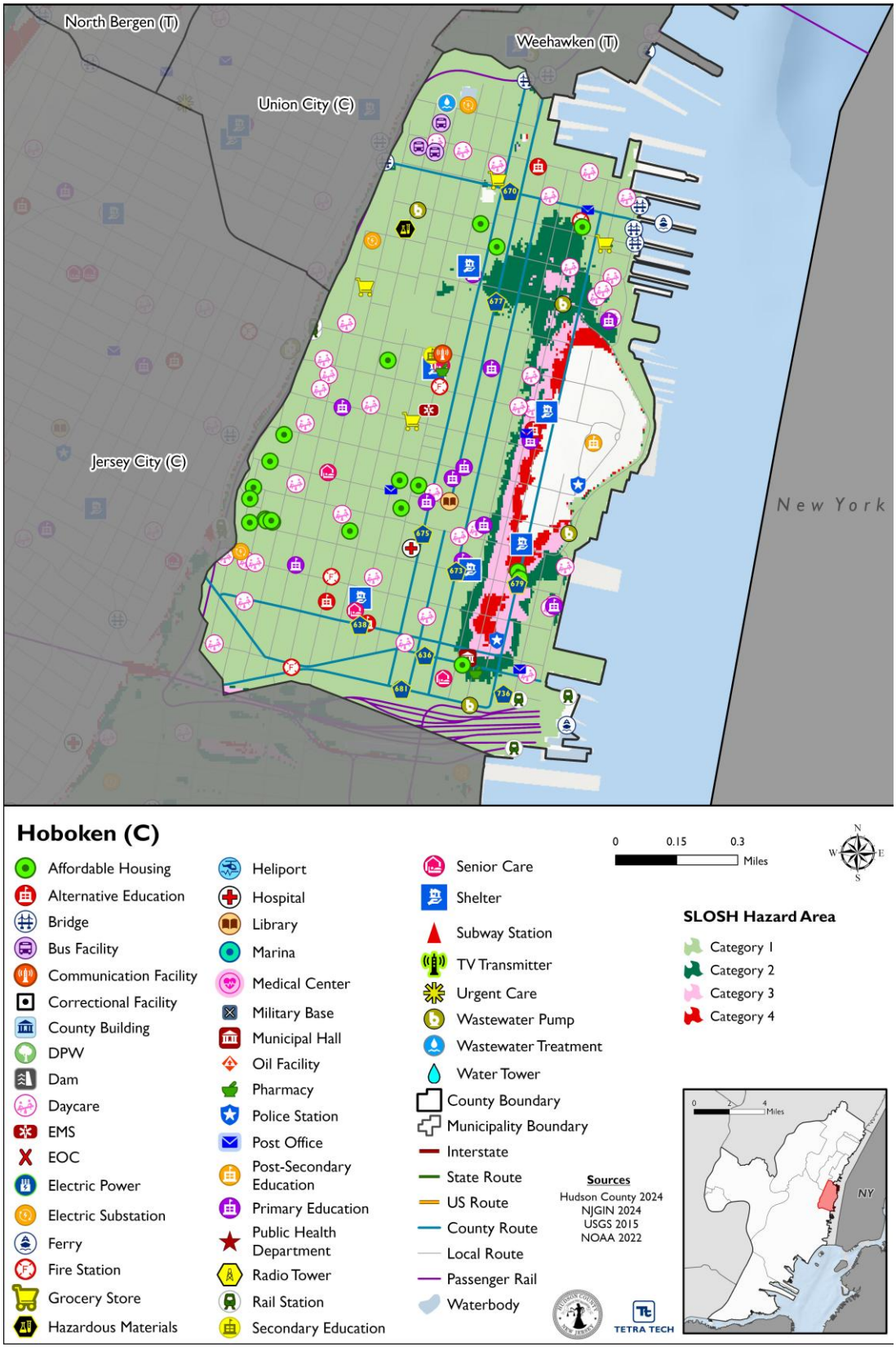


Figure 7-3. Hoboken Hazard Area Extent and Location Map 3



7.6.2 Hazard Event History

The history of natural and non-natural hazard events in Hoboken is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 7-14 provides details on loss and damage in Hoboken during hazard events since the last hazard mitigation plan update.

Table 7-14. Hazard Event History in Hoboken

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hoboken
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The City did not experience any noted or documented damages or losses.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	Labor Expenses $ 5,003,840.90 Material Expenses $ 564,655.36 Contract Expenses $1,007,655.39 Equipment Labor Expenses: $12,760.89 Total Expenses: $7,113,217.28 Provided management, control, and reduction of immediate threats to public health and safety by the following: •Labor Provided through security and law enforcement to ensure public parks and spaces were not utilized in addition to their presence during emergency medical calls in response to the COVID -19 pandemic. •Contract labor for the disinfectant fogging/ cleaning of common areas to 10-7 story buildings, and Installation of Upper Air Ultraviolet Germicidal Irradiation Fixtures •Purchase of materials, sanitization equipment, handsfree building access pedal and push bar, Personal Protective equipment and disinfection supplies. •Administered covid- 19 testing and vaccine management / administration •Distributed senior meals for at risk groups required to shelter in place

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hoboken
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The City did not experience any noted or documented damages or losses.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The City did not experience any noted or documented damages or losses.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	The City did not experience any noted or documented damages or losses.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hoboken
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	Labor Expenses: $41,691.57 Equipment Expenses: $61,437.90 Material Expenses: $3,583.87 Contract Expenses: $325,683.90 Total Expenses: $428,813.37 Utilized force account labor, equipment, contracts, and materials to restore Hoboken city's facilities and or town to its pre-disaster design, function and capacity by the following •Debris removal •Heavy Rains overwhelmed multiple of the city municipal water services, the pressure of water caused water main breaks. The removal of the damaged pipes and replacement of new pipes at 13th Street and Jefferson Street, Clinton Street 2nd and 3rd, Hudson Street 7th and 8th water facility locations. •Repair and Restore due to Heavy Rains and flooding which caused road damage to 2 Hudson Street, Hoboken NJ. •Repair and restore due to damage caused by flooding to the Jubilee Center's facility's elevator located at 601 Jackson Street, Hoboken City NJ. •Repair and restore due to damage caused by flooding to the Fire Engine Company boiler water heater and washer/dryer units located at 1313 Washington street Hoboken City NJ. •City Hall sustained damage to the interior flooring where flood waters had gained access- Replacement of flooring to City Hall basement located at 94 Washington Street, Hoboken NJ. •Utilization for Force account labor, contract and materials for Emergency Protective measures.
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	The City did not experience any noted or documented damages or losses.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

7.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Hoboken.

7.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. Hoboken reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the City indicated the following:

- None Identified

Table 7-15 shows Hoboken's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 7-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Low
Drought	Medium
Extreme Temperatures	Medium
Flood	High
Geological Hazards	High
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

7.6.3.2 Critical Facilities

Table 7-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Hoboken:

- None identified

Table 7-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
#Wow Kids, LLC	Daycare	X	-
10 Church Towers	Affordable Housing	X	-
15 Church Towers	Affordable Housing	X	-
5 Church Towers	Affordable Housing	X	-
916 Garden Garage	Municipal Garage	X	-
Academy Bus Facility	Bus Facility	X	-
Academy Bus Facility	Bus Facility	X	-
Academy Bus Facility	Bus Facility	X	-
Acme	Grocery Store	X	-
Adventures in Learning Day Care	Daycare	X	-
Adventures in Learning Day Care	Daycare	X	-
Apple Montessori Of Hoboken	Primary Education	-	X
Apple Montessori School of Hoboken	Primary Education	-	X
Apple Montessori Schools & Camps – Hoboken	Daycare	-	X
Apple Montessori Schools & Camps – Hoboken	Daycare	-	X
Applied 1	Affordable Housing	-	X
Applied 2	Affordable Housing	-	X
At Mr. Robert's, LLC	Daycare	X	-
Bright Horizons at Maxwell Place	Daycare	-	X
Bright Horizons at Sinatra Dr	Daycare	-	X
Clock Towers	Affordable Housing	X	X
Cognis Corp.	Hazardous Materials	X	X
Cognis Corp.	Hazardous Materials	X	X
Cognis Corp.	Hazardous Materials	X	X
Cognis Corp.	Hazardous Materials	X	X
Cognis Corp.	Hazardous Materials	X	X
Columbian Arms	Senior Care	X	X
Columbian Towers	Senior Care	X	X
Cresthill Academy	Daycare	X	X
Cresthill Academy	Daycare	X	X
Cresthill Academy Hoboken	Daycare	-	X
CVS	Pharmacy	X	X
Elysian Charter School Of Hoboken	Alternative Education	X	X
Fox Hill Gardens	Senior Care	X	X
Hoboken Catholic Academy	Primary Education	X	X
Hoboken Charter School-Upper School	Alternative Education	X	X
Hoboken Children's Academy	Daycare	X	X

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
Hoboken Day Care 100	Daycare	X	X
Hoboken Day School	Daycare	X	X
Hoboken DPW	DPW	X	X
Hoboken Dual Language Charter School (Hola)-Elementary School	Alternative Education	X	X
Hoboken EMS	EMS	X	X
HOBOKEN FD – HEADQUARTERS	Fire Station	X	X
HOBOKEN FD LADDER COMPANY 1 / ENGINE COMPANY 3	Fire Station	-	X
HOBOKEN FD ENGINE COMPANY 1/LADDER COMPANY 2	Fire Station	X	X
HOBOKEN FD ENGINE COMPANY 4 / RESCUE COMPANY 1	Fire Station	X	X
Hoboken Ferry Terminal	Ferry	X	X
Hoboken High School	Shelter	X	X
Hoboken High School	Secondary Education	X	X
Hoboken Homeless Shelter	Shelter	X	X
HOBOKEN LIBRARY	Library	X	X
Hoboken Little School LLC	Daycare	X	X
Hoboken Middle School	Primary Education	-	X
Hoboken Montessori School	Daycare	-	X
Hoboken Montessori at Washington	Daycare	X	X
Hoboken North-14th Street Ferry Terminal	Ferry	X	X
Hoboken Station	Rail Station	X	X
Hoboken Sub	Electric Substation	X	X
Hoboken Terminal Station	Rail Station	X	X
Hoboken Terminal Station	Rail Station	X	X
Hoboken University Medical Center	Hospital	X	X
HOPES CAP Inc Jubilee Center	Daycare	X	X
HOPES CAP, Inc. Head Start	Daycare	X	X
HOPES CAP, Inc. St. Ann's Center	Daycare	X	X
Housing Authority 1	Affordable Housing	X	X
Housing Authority 10 - Fox Hills Gardens	Affordable Housing	X	X
Housing Authority 11	Affordable Housing	X	X
Housing Authority 2 - Andrew Jackson	Affordable Housing	X	X
Housing Authority 3 - Andrew Jackson	Affordable Housing	X	X
Housing Authority 4 - Andrew Jackson	Affordable Housing	X	X
Housing Authority 5 - Andrew Jackson	Affordable Housing	X	X
Housing Authority 6 - Harrison Gardens	Affordable Housing	X	X
Housing Authority 7 - Harrison Gardens	Affordable Housing	X	X
Housing Authority 8 - Harrison Gardens	Affordable Housing	X	X

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
Housing Authority 9 - Harrison Gardens	Affordable Housing	X	X
HUDS-BERG LR & 18TH ST	Bridge	X	X
Hudson River	Bridge	X	X
Hudson River	Bridge	X	X
Hudson River	Bridge	X	X
Joseph F. Brandt No. 2 Elementary School	Primary Education	X	X
Kings 2	Grocery Store	X	X
Lightbridge Academy	Daycare	X	X
Lightbridge Academy	Daycare	X	X
Little Linguistics	Daycare	-	X
Local TV Channel 78 at HS – broadcast	Communication Facility	X	X
Madison St. Sub	Electric Substation	X	X
Marion Towers	Senior Care	X	X
Marshall St. Sub	Electric Substation	X	X
Midtown Garage	Municipal Garage	X	X
Mile Square Early Learning Center	Daycare	X	X
Mile Square Early Learning Center	Daycare	X	X
Mile Square Early Learning Center	Daycare	-	X
Multi-Service Center	Shelter	X	X
Mustard Seed School	Primary Education	X	X
My Little Gan	Daycare	X	X
NHSA - H6/H7 Stormwater PS	Wastewater Pump	X	X
North Hudson Sewerage Authority	Wastewater Treatment	X	X
Pump Station 5th Street	Wastewater Pump	X	X
Pump Station H1	Wastewater Pump	X	X
Pumpkin Patch Preschool and Early Learning Center	Daycare	X	X
Salvatore R. Calabro	Primary Education	X	X
ShopRite	Grocery Store	X	X
Smart Start Academy	Daycare	X	X
Step by Step School	Daycare	X	X
Stevens Cooperative School, Hoboken Campus	Primary Education	X	X
Tessa International School	Daycare	X	X
The Hudson School	Primary Education	X	X
The Kaplan Preschool	Daycare	X	X
Thomas G. Connors Elementary School	Primary Education	X	X
Trader Joe's	Grocery Store	X	X
United States Postal Service	Post Office	X	X
United States Postal Service	Post Office	X	X

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
United States Postal Service	Post Office	X	X
Urban Jungle Play	Daycare	X	X
WALLACE 6 ELEMENTARY SCHOOL	Shelter	X	X
Wallace No. 6 Elementary School	Primary Education	X	X
World of Wonder Day Care	Daycare	X	X
World of Wonder Day Care	Daycare	X	X

Source: Hudson County; HIFLD; NJGIN

7.6.4 Identified Issues

After review of Hoboken's hazard event history, hazard rankings, hazard location, and current capabilities, Hoboken identified the following vulnerabilities within the community:

- Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:
  - Determine where the damage occurred within the community and if the damaged structures are in an SFHA.
  - Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.
  - Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.
  - Require permits for floodplain development.

  The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- The City currently does not have a Disaster Recovery Ordinance.
- The City currently does not have a Disaster Reconstruction Ordinance.
- Street level flooding occurs during heavy rain events in southwest Hoboken.
- Street level flooding occurs during heavy rain events in Hoboken.
- City Right of Way is underutilized for flood risk reduction.
- There is a lack of small loans and financing mechanisms for individuals to install risk reduction measures.
- The City does not have a shelter in place plan that would support evacuation of the entire special flood hazard area.
- The PSE&G distribution system of radial and network feeders is designed for reliability, not necessarily resiliency.

- North Hudson Sewerage Authority does not have the pumping capacity to actively dewater streets during a heavy rain event.
- Currently using the 2013 ABFEs (plus freeboard); however, they do not fully represent the flood hazards in the City. Higher standards are needed for future planning and to protect future development from flood hazards and sea level rise.
- A majority of the fire department facilities are located in the floodplain. They are scattered throughout the City. During a flood event, a department might not be able to respond to an emergency and/or sustain building and equipment damage associated with flooding.
- Senior citizen buildings and Hoboken Housing Authority buildings are located in the floodplain. During a flood event, it is difficult for these residents to evacuate.
- There are 274 repetitive loss and no severe repetitive loss properties in the City of Hoboken. Frequent flooding has resulted in damages to these structures as documented by paid NFIP claims.
- The City's current EOP was last updated in 2017; however, it does not have an Emergency Support Function (ESF) for pandemic.
- City Hall facilities are antiquated and need to be updated to reduce the transmission and exposure to COVID19.

7.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

7.7.1 Past Mitigation Action Status

Table 7-17 indicates progress on the City's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

7.7.2 Additional Mitigation Efforts

In addition to the completed mitigation actions from the previous HMP, Hoboken identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

Table 7-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HOBOKEN-001	Real Estate Disclosure	Coastal Storm, Flood, Severe Weather	City Floodplain Administrator	Problem: Residential Properties located in the special flood hazard area are vulnerable to property damage from coastal flooding. Solution: Disclosure of floodplain and hazard information at point of sale can educate.	1.Complete 2. N/A	1.Discontinue 2.N/A 3. This action has been completed
2020-HOBOKEN-002	Disaster Recovery Ordinance	Coastal Storm, Flood, Severe Weather	City Floodplain Administrator	Problem: The City currently does not have a Disaster Recovery Ordinance. Solution: Develop a Disaster Recovery ordinance to help manage procurement, triage and priorities.	1.No progress 2. Funding resources for ordinance development	1. Include 2.No change 3. N/A
2020-HOBOKEN-003	Disaster Reconstruction Ordinance	Coastal Storm, Flood, Severe Weather	City Floodplain Administrator	Problem: The City currently does not have a Disaster Reconstruction Ordinance. Solution: Develop a Disaster Reconstruction ordinance to help manage procurement, triage and priorities.	1.No progress 2. Funding resources for ordinance development	1. Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HOBOKEN-004	Open Space Acquisitions	Coastal Storm, Flood, Severe Weather	City of Hoboken Community Development	Problem: Street level flooding occurs during heavy rain events in southwest Hoboken. Solution: Purchase tract of land and re-engineer to parks and open space with on-grade flood water retention and subsurface detention facilities to reduce localized flooding.	1. Ongoing 2. Project is still in conceptual development with the City and engineers. It has been delayed due to limited capacity and capability to implement the project within the HMP timeframe.	1.Include 2.No change 3. N/A
2020-HOBOKEN-005	Join the CRS Program	Flood	City of Hoboken Zoning Officer	Problem: The City is currently not in the CRS program. By not participating, homeowners and businesses are not receiving a discount on their flood insurance premiums. There are 179 repetitive loss and 8 severe repetitive loss properties in the City. Solution: The City will develop an action plan to determine the next steps in joining the CRS program.	1.No Progress 2. N/A	1.Discontinue 2.N/A 3. City advised to discontinue
2020-HOBOKEN-006	Pump Stations #3	Coastal Storm, Flood, Severe Weather	City of Hoboken Public Works Department, NHSA	Problem: Street level flooding occurs during heavy rain events in Hoboken Solution: Construct Wet Weather Pump Station #3 as recommended in Emnet Report	1.In Progress 2. This action is not yet complete	1.Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HOBOKEN-007	Sustainable Stormwater Management System	Flood	City of Hoboken Planning	Problem: City Right of Way is underutilized for flood risk reduction. Solution: Design and construct a sustainable stormwater management system consistent with the Rebuild by Design 61 ROW Bioswale designs to reduce stormwater runoff and flooding.	1.Ongoing 2. The City is in the process of designing approximately 12 ROW GI improvements at locations identified as part of RBD.	1. Include 2.No change 3. N/A
2020-HOBOKEN-008	Financial Assistance for Sump Pumps	Flood	City of Hoboken FPA, Construction Office	Problem: There is a lack of small loans and financing mechanisms for individuals to install risk reduction measures. Solution: Create a mechanism for residents to apply for assistance with the procurement and installation of sump pumps and backflow preventers as well as elevation of utilities.	1. Ongoing 2. Available through NHSA. Wider promotion of the program's availability	1.Include 2.No change 3. N/A
2020-HOBOKEN-009	Citywide Shelter Needs Assessment	All Hazard	City of Hoboken OEM	Problem: The City does not have a shelter in place plan that would support evacuation of the entire special flood hazard area. Solution: Develop a shelter needs assessment program	1.In Progress 2. This action is not yet complete	1.Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HOBOKEN-010	Develop City-Wide Microgrid	All Hazard	Municipal Manager, Zoning and Construction Departments	Problem: The PSE&G distribution system of radial and network feeders is designed for reliability, not necessarily resiliency. Solution: Procurement of distributed generation and installment of medium voltage distribution network to ensure redundant and consistent power supply to critical facilities. Project Implementation consistent with TCDER PHASE I & II microgrid funded through the New Jersey Board of Public Utilities	1.In Progress 2. This action is not yet complete	1.Include 2.No change 3. N/A
2020-HOBOKEN-011	Supply Emergency Power to Gas Stations	All Hazard	City of Hoboken OEM	Problem: The fuel stations in the City do not have backup power. In the event of a power outage, municipal officials cannot fuel their vehicles. This can lead to disruption of services. Solution: Obtain mobile generators and install quick disconnects for generators at fuel stations.	1.Complete 2. N/A	1.Discontinue 2.N/A 3. This action has been completed

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HOBOKEN-012	Purchase Mobile EOC	All Hazard	City of Hoboken OEM	Problem: City Hall emergency operations center is not built to modern standards. Solution: Update existing EOC in City Hall and ensure its ability to maintain operations during reasonable hazards, and then plan for redundant locations.	1.Complete 2. N/A	1.Discontinue 2.N/A 3. This action has been completed
2020-HOBOKEN-013	Secure City Network Data	Cyber Attack	Business Administration	Problem: Multiple attacks and attempts have occurred on city telecommunication systems. Solution: Actively defend city computer systems from malicious activity, maintain full backups on and off site and establish a data link independent of local infrastructure. Secure servers by lock and key in City Hall and designate discreet locations for servers.	1. Ongoing 2. -	1.Discontinue 2.N/A 3. This hazard is not profiled for this HMP update.
2020-HOBOKEN-014	Public Awareness & Education Campaign	All Hazard	City of Hoboken OEM	Problem: Hoboken has a high rate of rental and condominium turnover. Many residents are not aware of different risks and hazards within the city. Solution: Coordinate annual awareness campaigns with CERT members	1.Complete 2. This is complete and ongoing	1.Discontinue 2.N/A 3. This is an ongoing capability

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HOBOKEN-015	Expansion of Community Emergency Response Team & Hoboken Ready Campaign	All Hazard	City of Hoboken OEM	Problem: There is inadequate shelter space outside of the special flood hazard area, and many residents may not have access to transportation. Solution: Provide citizens with the tools to safely shelter in place, organize during an emergency, disseminate information goods and services in a coordinated manner, and augment emergency services through establish command protocols.	1.Complete 2. This is complete and ongoing	1.Discontinue 2.N/A 3. This is an ongoing capability
2020-HOBOKEN-016	Construction of wet weather pump stations	Coastal Storm, Flood, Severe Weather	NHSA, Construction and Zoning Departments	Problem: North Hudson Sewerage Authority does not have the pumping capacity to actively dewater streets during a heavy rain event. Solution: Support the construction of four wet weather pump stations to protect the low lying areas of Hoboken from flooding.	1. Ongoing 2. Wet Weather pump stations constructed or under construction at Southwest Resiliency Park and ResileinCity Park	1.Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HOBOKEN-017	Independent Flood Mapping Project	Flood, Severe Weather, Sea Level Rise, Coastal Storm	City of Hoboken, Resiliency and Planning Teams	Problem: Currently using the 2013 ABFEs (plus freeboard); however, they do not fully represent the flood hazards in the City. Higher standards are needed for future planning and to protect future development from flood hazards and sea level rise. Solution: Conduct an independent mapping project that incorporates higher regulatory standards that they will use for floodplain management administration, separate from FEMA maps. These will be used for ongoing construction projects. This will include a sea level rise projections – used as public outreach tools and use for future mitigation planning in the City.	1. No Progress 2. source of funding needs to be identified	1.Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HOBOKEN-018	Fire Department Feasibility Study	Flood, Coastal Storm, Severe Storm	Hoboken OEM and Fire Department	Problem: A majority of the fire department facilities are located in the floodplain. They are scattered throughout the City. During a flood event, a department might not be able to respond to an emergency and/or sustain building and equipment damage associated with flooding. Solution: Conduct a feasibility study for the City's fire departments and EMS facilities. The study will look at alternative locations, outside of the floodplain, to relocated these emergency facilities. It will also look at the potential for incorporating into redevelopment plans and evaluate the costs of conducting the relocation.	1.Ongoing 2. -	1.Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HOBOKEN-019	Assessment of Senior Citizen Housing	Flood, Coastal Storm, Severe Storm	Hoboken Housing Authority and City Administration	Problem: Senior citizen buildings and Hoboken Housing Authority buildings are located in the floodplain. During a flood event, it is difficult for these residents to evacuate. Solution: Comprehensive assessment of all senior citizen buildings and Hoboken Housing Authority Buildings to create an action plan for elevating critical facilities and housing units that are below design flood elevation. This assessment will create a cost estimate for each facility and then the City will seek funding to complete the elevation projects.	1.Ongoing 2. City adopted a Hoboken Housing Authority Redevelopment Plan in 2024 that plans for the reconstruction of HHA buildings to meet flood requirements. Implementation is ongoing.	1.Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HOBOKEN-020	Mitigate flood-prone properties, including RL/SRL properties	Flood, Coastal Storm, Severe Storm	NFIP Floodplain Administrator, supported by homeowners	Problem: There are 178 repetitive loss and eight severe repetitive loss properties in the City of Hoboken. Frequent flooding has resulted in damages to these structures as documented by paid NFIP claims. Solution: Conduct outreach to the flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement the best mitigation option.	1.Ongoing 2. -	1.Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HOBOKEN-021	Pandemic Preparedness Plan and Training	Disease Outbreak	Public Safety, Health, OEM, Administration	Problem: The City does not have a formal pandemic preparedness plan. Due to the recent pandemic, the City realizes having a formal plan is essential in becoming more prepared and able to respond. Solution: Working with various City departments, the City will prepare a pandemic preparedness and response plan. The plan will include planning, development, education, practice, testing, evaluation, and annual reviews/updates.	1.In Progress 2.This action is not yet complete	1.Discontinue 2.N/A 3. This hazard is not profiled for this HMP update.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-HOBOKEN-022	Update the City's EOP	All Hazards	Public Safety, Health, OEM, Administration	Problem: The City's current EOP was last updated in 2017; however, it does not have an Emergency Support Function (ESF) for pandemic. Solution: Update the City's EOP and develop an ESF specifically for pandemic events. It should follow a similar format of the current ESFs. In order to develop this ESF, the City should conduct the following to prepare for a pandemic: hazard analysis, capability assessment, mitigation program, resource management, documentation, critique, reimbursement for recovery costs, training program, and exercise program.	1.In Progress 2.This action is not yet complete	1.Include 2.No change 3. N/A
2020-HOBOKEN-023	Historic Preservation and Capital Improvements of City Hall	All Hazards	Public Safety, Health, OEM, Administration	Problem: City Hall facilities are antiquated and need to be updated to reduce the transmission and exposure to COVID19 Solution: The City is developing an Engineering Infection Plan (EIP) that organizes phases of capital improvements around milestones for re-opening city facilities to the public.	1.In Progress 2.This action is not yet complete	1.Include 2.No change 3. N/A

7.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Hoboken participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Hoboken would like to pursue in the future to reduce the effects of hazards. The actions 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 City priorities.

Table 7-18 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 7-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 7-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X				X					X
Drought	X				X					X
Extreme Temperatures	X				X					X
Flood	X	X	X		X	X		X		X
Geological Hazards	X				X					X
Severe Weather	X	X	X		X	X		X		X
Severe Winter Weather	X				X					X
Wildfire	X				X					X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 7-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-Hoboken-001	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	**13**	**High**
2025-Hoboken-002	Disaster Recovery Ordinance	1	1	1	1	1	1	0	1	1	1	1	1	0	1	**12**	High
2025-Hoboken-003	Disaster Reconstruction Ordinance	1	1	1	1	1	1	0	1	1	1	1	1	0	1	**12**	High
2025-Hoboken-004	Open Space Acquisitions	1	1	1	0	0	0	1	1	1	1	1	1	1	0	**10**	Medium
2025-Hoboken-005	Pump Station #3	1	1	1	1	1	0	-1	1	0	1	1	1	1	1	**11**	High
2025-Hoboken-006	Sustainable Stormwater Mangement System	1	1	1	1	0	0	1	1	0	1	1	-1	1	0	**9**	Medium
2025-Hoboken-007	Financial Assistance for Sump Pumps	1	1	1	0	0	0	1	1	1	1	1	1	0	0	**9**	Medium
2025-Hoboken-008	Citywide Shelter Needs Assessment	1	0	1	1	1	0	0	1	1	1	1	0	1	0	**9**	Medium
2025-Hoboken-009	Develop City-Wide Microgrid	1	1	1	1	0	0	1	1	1	1	1	1	1	0	**11**	High
2025-Hoboken-010	Construction of Wet Weather Pump Stations	1	1	1	1	1	0	1	1	1	1	1	1	1	1	**13**	High
2025-Hoboken-011	Independent Flood Mapping Project	1	1	1	1	1	0	1	0	1	1	1	1	1	1	**12**	High
2025-Hoboken-012	Fire Department Feasibility Study	1	1	1	1	1	0	0	0	1	1	1	1	1	1	**11**	High
2025-Hoboken-013	Assessment of Senior Citizen Housing	1	1	1	1	1	0	0	1	1	1	1	1	0	1	**11**	High

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-Hoboken-014	Mitigate Flood-Prone Properties including RL/SRL Properties	1	1	1	0	0	0	0	1	1	1	1	1	1	1	**10**	Medium
2025-Hoboken-015	Update the City's EOP	1	1	1	1	1	0	1	1	1	1	1	1	1	1	**13**	High
2025-Hoboken-016	Historic Preservation and Capital Improvements of City Hall	1	1	1	1	1	0	0	1	1	1	1	1	1	0	**11**	High

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

Action-2025-Hoboken-001. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	City OEM, City DPW
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
Description of the Solution:	The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 *Developing a Substantial Damage Management Plan* (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	3, 6
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
Impact on Capabilities:	This action improves disaster recovery capabilities.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
Mitigation Category	Local Plans and Regulations
CRS Category	Emergency Services, Preventative Measure
Priority	High

Alternatives	Action	Action
	No Action	No Action
	Rely on state or federal resources following disaster events	Rely on state or federal resources following disaster events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	Establish MOUs with outside agencies to conduct Substantial Damage Determinations

Action-2025-Hoboken-002. Disaster Recovery Ordinance

Lead Agency:	City Floodplain Administrator	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The City currently does not have a Disaster Recovery Ordinance.	
Description of the Solution:	Develop a Disaster Recovery ordinance to help manage procurement, triage and priorities.	
Estimated Cost:	Low	
Potential Funding Sources:	City Budget	
Implementation Timeline:	1-5 Years	
Goals Met:	3,6	
Benefits:	Establishes clear procedures for post-disaster decision-making, reducing confusion and delays in recovery.	
Impact on Socially Vulnerable Populations:	Ensures recovery resources are distributed fairly and reach the most at-risk populations quickly.	
Impact on Future Development:	Guides rebuilding in safer, more resilient ways by embedding mitigation principles into recovery.	
Impact on Critical Facilities/Lifelines:	Prioritizes restoration of essential services and infrastructure to minimize disruption.	
Impact on Capabilities:	Enhances the City's legal and operational readiness to manage complex recovery operations.	
Climate Change Considerations:	Promotes climate-resilient rebuilding by integrating long-term adaptation into recovery planning.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Preventative Measures	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Use State or Federal Recovery Frameworks Alone	Not tailored to local needs
	Develop a plan without ordinance level authority	May not be enforceable

Action-2025-Hoboken-003. Disaster Reconstruction Ordinance

Lead Agency:	City Floodplain Administrator	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The City currently does not have a Disaster Reconstruction Ordinance.	
Description of the Solution:	Develop a Disaster Reconstruction ordinance to help manage procurement, triage and priorities.	
Estimated Cost:	Low	
Potential Funding Sources:	City Budget	
Implementation Timeline:	1-5 Years	
Goals Met:	3,6	
Benefits:	Establishes clear procedures for post-disaster decision-making, reducing confusion and delays in recovery.	
Impact on Socially Vulnerable Populations:	Ensures recovery resources are distributed fairly and reach the most at-risk populations quickly.	
Impact on Future Development:	Guides rebuilding in safer, more resilient ways by embedding mitigation principles into recovery.	
Impact on Critical Facilities/Lifelines:	Prioritizes restoration of essential services and infrastructure to minimize disruption.	
Impact on Capabilities:	Enhances the City's legal and operational readiness to manage complex recovery operations.	
Climate Change Considerations:	Promotes climate-resilient rebuilding by integrating long-term adaptation into recovery planning.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Preventative Measures	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Use State or Federal Recovery Frameworks Alone	Not tailored to local needs
	Develop a plan without ordinance level authority	May not be enforceable

Action-2025-Hoboken-004.Open Space Acquisitions

Lead Agency:	City of Hoboken Community Development	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	Street level flooding occurs during heavy rain events in southwest Hoboken.	
Description of the Solution:	Purchase tract of land and re-engineer to parks and open space with on-grade flood water retention and subsurface detention facilities to reduce localized flooding.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA FMA, HMGP	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3	
Benefits:	Losses will be avoided on the properties that are purchased could range from minor regular flooding to catastrophic loss during an extreme event	
Impact on Socially Vulnerable Populations:	Reduces flood risk in densely populated areas, benefiting residents who may lack resources to recover from repeated flooding.	
Impact on Future Development:	Encourages resilient development by lowering flood risk and increasing neighborhood livability.	
Impact on Critical Facilities/Lifelines:	Helps protect nearby roads, utilities, and transit routes from flood-related disruptions.	
Impact on Capabilities:	Demonstrates innovative, nature-based solutions that strengthen the City's flood management.	
Climate Change Considerations:	Prepares the area for more intense rainfall events and rising groundwater levels due to climate change.	
Mitigation Category	Natural Systems Protection	
CRS Category	Property Protection, Emergency Services, Natural Resource Protection	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Actions	-
	Elevate Streets in Area	May push water into adjacent properties; Doesn't solve underlying issue
	Install Larger Storm Drains Alone	Temporary fix

Action-2025-Hoboken-005. Pump Station #3

Lead Agency:	City Public Works	
Supporting Agencies:	NHSA	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	Street level flooding occurs during heavy rain events in Hoboken.	
Description of the Solution:	Construct Wet Weather Pump Station #3 as recommended in Emnet Report.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA HMGP, NJ EIT	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6	
Benefits:	With added capacity to the city's drainage system flooding will be reduced, significant property damage can be averted, health conditions will be improved.	
Impact on Socially Vulnerable Populations:	Vulnerable areas that may otherwise experience a loss of water during heavy rain or flooding will be more likely to retain services.	
Impact on Future Development:	Communities with sound and resilient infrastructure encourage commercial and residential development.	
Impact on Critical Facilities/Lifelines:	Hydration lifeline is more likely to remain intact.	
Impact on Capabilities:	Maintaining operational water services reduces recovery time and costs.	
Climate Change Considerations:	Consideration should be taken regarding the increase in heavy rain and flood events as a result of climate change.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Expanding existing pump station	May already be operating at near capacity
	Rely solely on green infrastructure	May not be able to handle intense storm events

Action-2025-Hoboken-006. Sustainable Stormwater Management System

Lead Agency:	City Planning
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	City Right of Way is underutilized for flood risk reduction.
Description of the Solution:	Design and construct a sustainable stormwater management system consistent with the Rebuild by Design 61 ROW Bioswale designs to reduce stormwater runoff and flooding and lower NFIP claims in the area. Currently, the City is in process of designing approximately 12 ROW GI improvements at locations identified as part of RBD.
Estimated Cost:	High
Potential Funding Sources:	FEMA FMA, HMGP, NJ EIT
Implementation Timeline:	5 or more years
Goals Met:	2
Benefits:	Reduce the volume of water in need of processing by the city's sewage system.
Impact on Socially Vulnerable Populations:	Reduces flood exposure in underserved neighborhoods and improves public health through better water management.
Impact on Future Development:	Makes surrounding areas more attractive and viable for development by reducing flood risk and enhancing streetscapes.
Impact on Critical Facilities/Lifelines:	Helps protect roads, utilities, and transit corridors by managing stormwater at the source.
Impact on Capabilities:	Builds local expertise in green infrastructure and supports scalable, replicable flood mitigation strategies.
Climate Change Considerations:	Increases resilience to more frequent and intense rainfall events by capturing and slowing runoff.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	High

Alternatives

Action	Evaluation
No Action	-
Install traditional underground stormwater pipes only	Expensive, and hard to maintain
Use temporary flood barriers or sandbags during storms	Reactive, labor intensive

Action-2025-Hoboken-007.Financial Assistance for Sump Pumps

Lead Agency:	City Floodplain Administrator	
Supporting Agencies:	Construction Office	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	There is a lack of small loans and financing mechanisms for individuals to install risk reduction measures.	
Description of the Solution:	Create a mechanism for residents to apply for assistance with the procurement and installation of sump pumps and backflow preventers as well as elevation of utilities.	
Estimated Cost:	Medium	
Potential Funding Sources:	Open Space Fund	
Implementation Timeline:	1-5 years	
Goals Met:	2,3	
Benefits:	Reduce flood claims, reduce flood damage	
Impact on Socially Vulnerable Populations:	Provides financial access to essential flood protection measures for low- and moderate-income households.	
Impact on Future Development:	Encourages resilient retrofits in existing homes, reducing long-term flood risk and insurance costs.	
Impact on Critical Facilities/Lifelines:	Indirectly reduces strain on emergency services and infrastructure by minimizing household-level flood damage.	
Impact on Capabilities:	Builds local capacity to implement decentralized, property-level mitigation strategies.	
Climate Change Considerations:	Helps residents adapt to more frequent and intense rainfall and flooding events driven by climate change.	
Mitigation Category	Structure and Infrastructure Project, Natural Systems Protection	
CRS Category	Property Protection	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Relying on FEMA and State grants alone	Competitive, may not be accessible to all residents
	Focus only on large scale infrastructure projects	Doesn't address the hazard risks during localized events.

Action-2025-Hoboken-008. Citywide Shelter Needs Assessment

Lead Agency:	City OEM	
Supporting Agencies:	-	
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	The City does not have a shelter in place plan that would support evacuation of the entire special flood hazard area.	
Description of the Solution:	Develop a shelter needs assessment program.	
Estimated Cost:	Low	
Potential Funding Sources:	FEMA HSGP, SHSP	
Implementation Timeline:	1-5 years	
Goals Met:	1	
Benefits:	Sheltering needs in the city are not as understood as needed; this could lead to larger than necessary loss of life if large scale sheltering is needed.	
Impact on Socially Vulnerable Populations:	Ensures that residents with limited mobility, income, or access to transportation are accounted for in shelter planning.	
Impact on Future Development:	Informs zoning and building decisions by identifying gaps in emergency shelter coverage and capacity.	
Impact on Critical Facilities/Lifelines:	Helps prioritize protection and retrofitting of facilities that could serve as emergency shelters or support evacuation.	
Impact on Capabilities:	Strengthens emergency preparedness by identifying shelter gaps, resource needs, and logistical challenges.	
Climate Change Considerations:	Prepares the city for more frequent and severe flood events that may require large-scale evacuation and sheltering.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Emergency Services	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Use Existing Emergency Plans Without a Specific Shelter Assessment	May not account for unique needs
	Rely on Regional or County-Level Shelter Resources	May be overwhelmed during a widespread events

Action-2025-Hoboken-009.Develop City-Wide Microgrid

Lead Agency:	Municipal Manager
Supporting Agencies:	Zoning and Construction Departments
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	The PSE&G distribution system of radial and network feeders is designed for reliability, not necessarily resiliency.
Description of the Solution:	Procurement of distributed generation and installment of medium voltage distribution network to ensure redundant and consistent power supply to critical facilities. Project Implementation consistent with TCDER PHASE I & II microgrid funded through the New Jersey Board of Public Utilities.
Estimated Cost:	High
Potential Funding Sources:	U.S Department of Energy, Municipal Bonds
Implementation Timeline:	1-5 years
Goals Met:	2,3,6
Benefits:	Losses associated with business interruption, lack of communication.
Impact on Socially Vulnerable Populations:	Ensures continuity of essential services like healthcare and emergency response that vulnerable populations rely on during disasters.
Impact on Future Development:	Supports resilient growth by providing a stable and redundant energy backbone for new developments.
Impact on Critical Facilities/Lifelines:	Directly enhances the reliability and resilience of power supply to hospitals, transit systems, and emergency operations centers.
Impact on Capabilities:	Builds local energy independence and operational flexibility during grid outages or extreme weather events.
Climate Change Considerations:	Supports adaptation to more frequent and severe storms by decentralizing power and reducing reliance on vulnerable centralized systems.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Use Only Backup Generators at Individual Facilities	Costly to maintain, may fail during extended outages
Implement Energy Efficiency Measures Alone	Does not address the need for redundant power supply

Action-2025-Hoboken-010. Construction of Wet Weather Pump Stations

Lead Agency:	NHSA	
Supporting Agencies:	City Construction and Zoning Departments	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	North Hudson Sewerage Authority does not have the pumping capacity to actively dewater streets during a heavy rain event.	
Description of the Solution:	Support the construction of four wet weather pump stations to protect the low lying areas of Hoboken from flooding and lower NFIP claims in the area.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA FMA, HMGP	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6	
Benefits:	Protect the low lying areas of Hoboken from flooding.	
Impact on Socially Vulnerable Populations:	Vulnerable areas that may otherwise experience a loss of water during heavy rain or flooding will be more likely to retain services.	
Impact on Future Development:	Communities with sound and resilient infrastructure encourage commercial and residential development.	
Impact on Critical Facilities/Lifelines:	Hydration lifeline is more likely to remain intact.	
Impact on Capabilities:	Maintaining operational water services reduces recovery time and costs.	
Climate Change Considerations:	Consideration should be taken regarding the increase in heavy rain and flood events as a result of climate change.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Expanding existing pump station	May already be operating at near capacity
	Rely solely on green infrastructure	May not be able to handle intense storm events

Action-2025-Hoboken-011.Independent Flood Mapping Project

Lead Agency:	City Resiliency and Planning Teams
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Currently using the 2013 ABFEs (plus freeboard); however, they do not fully represent the flood hazards in the City. Higher standards are needed for future planning and to protect future development from flood hazards and sea level rise.
Description of the Solution:	Conduct an independent mapping project that incorporates higher regulatory standards that they will use for floodplain management administration, separate from FEMA maps. These will be used for ongoing construction projects. This will include a sea level rise projections – used as public outreach tools and use for future mitigation planning in the City.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA PDM, City Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,4,5,6,7
Benefits:	Identifies higher standards for new construction, increases flood resiliency.
Impact on Socially Vulnerable Populations:	Helps identify and prioritize flood risks in underserved areas that may be overlooked by outdated FEMA maps.
Impact on Future Development:	Provides more accurate data to guide resilient building practices and zoning decisions in flood-prone areas.
Impact on Critical Facilities/Lifelines:	Ensures that essential infrastructure is sited and designed with future flood risks in mind.
Impact on Capabilities:	Enhances the city's ability to manage floodplain development and enforce higher standards through local authority.
Climate Change Considerations:	Incorporates sea level rise and future flood scenarios to support long-term adaptation and risk reduction.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Wait for FEMA to Update Its Flood Maps	May not align with local priorities or timelines
	Use Generalized Climate Models Without Local Mapping	Broad models lack the resolution and specificity needed for parcel-level planning, permitting, and public outreach.

Action-2025-Hoboken-012.Fire Department Feasibility Study

Lead Agency:	City OEM
Supporting Agencies:	City Fire Department
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	A majority of the fire department facilities are located in the floodplain. They are scattered throughout the City. During a flood event, a department might not be able to respond to an emergency and/or sustain building and equipment damage associated with flooding.
Description of the Solution:	Conduct a feasibility study for the City's fire departments and EMS facilities. The study will look at alternative locations, outside of the floodplain, to relocated these emergency facilities. It will also look at the potential for incorporating into redevelopment plans and evaluate the costs of conducting the relocation.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA PDM, Fire Assistance Grant, City Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,4,5,6,7
Benefits:	Identifies solutions to protect emergency facilities from damage, continuity of operations.
Impact on Socially Vulnerable Populations:	Ensures uninterrupted emergency response services for residents who are most at risk during disasters.
Impact on Future Development:	Guides resilient urban planning by aligning emergency facility siting with long-term redevelopment goals.
Impact on Critical Facilities/Lifelines:	Directly improves the reliability and safety of essential emergency services during flood events.
Impact on Capabilities:	Enhances the City's ability to respond to emergencies by reducing the risk of facility inaccessibility or damage.
Climate Change Considerations:	Anticipates increased flood frequency and severity, ensuring emergency infrastructure is future-ready.
Mitigation Category	Local Plans and Regulations
CRS Category	Emergency Services
Priority	High

Alternatives

Action	Evaluation
No Action	-
Rely on Mutual Aid from Nearby Municipalities During Flood Events	Delayed response, strain on neighboring jurisdictions
Use Temporary Mobile Units During Flood Events	Limited capacity

Action-2025-Hoboken-013.Assessment of Senior Citizen Housing

Lead Agency:	Hoboken Housing Authority
Supporting Agencies:	City Administration
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Senior citizen buildings and Hoboken Housing Authority buildings are located in the floodplain. During a flood event, it is difficult for these residents to evacuate.
Description of the Solution:	Comprehensive assessment of all senior citizen buildings and Hoboken Housing Authority Buildings to create an action plan for elevating critical facilities and housing units that are below design flood elevation. This assessment will create a cost estimate for each facility and then the City will seek funding to complete the elevation projects. City adopted a Hoboken Housing Authority Redevelopment Plan in 2024 that plans for the reconstruction of HHA buildings to meet flood requirements. Implementation is ongoing.
Estimated Cost:	Medium
Potential Funding Sources:	CDBG, FEMA PDM, City Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,4,5,6,7
Benefits:	Identifies buildings that need to be mitigated, protects critical facilities
Impact on Socially Vulnerable Populations:	Directly protects elderly and low-income residents who face the greatest challenges evacuating or recovering from flood events.
Impact on Future Development:	Supports resilient redevelopment of public housing in alignment with the 2024 Hoboken Housing Authority Redevelopment Plan.
Impact on Critical Facilities/Lifelines:	Ensures continuity of essential services and housing for vulnerable populations during and after flood events.
Impact on Capabilities:	Builds the city's capacity to prioritize, fund, and implement structural mitigation for high-risk residential buildings.
Climate Change Considerations:	Addresses long-term sea level rise and more frequent flooding by elevating infrastructure to future-ready standards.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	High

Alternatives

Action	Evaluation
No Action	-
Rely on Temporary Evacuation Plans During Flood Events	Does not prevent long term displacement
Retrofit Only Utility Systems Without Elevating Structures	Does not protect the entire structure

Action-2025-Hoboken-014.Mitigate Flood-Prone Properties including RL/SRL Properties

Lead Agency:	NFIP Floodplain Administrator
Supporting Agencies:	Homeowners
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	There are 274 repetitive loss and no severe repetitive loss properties in the City of Hoboken. Frequent flooding has resulted in damages to these structures as documented by paid NFIP claims.
Description of the Solution:	Conduct outreach to the flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement the best mitigation option.
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP, FMA
Implementation Timeline:	1-5 years
Goals Met:	1,2
Benefits:	Eliminates flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.
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:	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.
Impact on Critical Facilities/Lifelines:	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.
Impact on Capabilities:	Removing the risk from the immediate floodplain via acquisition of properties will free up resources for search and rescue and other emergency operations as needed.
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of severe rainfall, flash flooding, riverine flooding, and coastal flooding from sea level rise and storm surge events. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Levee around floodplain	Costly, not enough room
Deployable flood barriers	Requires deployment. Residents may not have adequate time to deploy, especially those who are elderly or disabled.

Action-2025-Hoboken-015. Update the City's EOP

Lead Agency:	Public Safety	
Supporting Agencies:	Public Health, OEM, Administration	
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	The City's current EOP was last updated in 2017; however, it does not have an Emergency Support Function (ESF) for pandemic.	
Description of the Solution:	Update the City's EOP and develop an ESF specifically for pandemic events. It should follow a similar format of the current ESFs. In order to develop this ESF, the City should conduct the following to prepare for a pandemic: hazard analysis, capability assessment, mitigation program, resource management, documentation, critique, reimbursement for recovery costs, training program, and exercise program.	
Estimated Cost:	Medium	
Potential Funding Sources:	UASI, HSGP, City Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3,4,5,6,7	
Benefits:	The (EOP details what the City will do during a disaster (incident command implementation, command center location and activities, specific plans by department, etc.). Updating the EOP will permit the Township to integrate new plans, policies, capabilities, and hazard assessments.	
Impact on Socially Vulnerable Populations:	The section overview portion of the EOP covers a discussion of a variety of topics, including population distribution and locations, including any concentrated populations of individuals with disabilities, others with access and functional needs, or individuals with limited English proficiency.	
Impact on Future Development:	Future development will be protected by the actions which OEM performs following the EOP.	
Impact on Critical Facilities/Lifelines:	The section overview portion of the EOP covers a discussion of a variety of topics, including vulnerable critical facilities (e.g. nursing homes, schools, hospitals, infrastructure).	
Impact on Capabilities:	This action will update an already existing planning capability of the City.	
Climate Change Considerations:	Climate change may result in an increase in the frequency and severity of weather-related disaster events. As impacts from climate change are increasingly felt, the contents in an EOP, including in the basic plan and any annexes, may need to be updated.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Preventative Measures	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No action	Current problem remains
	Integrate hazard mitigation principles in only hazard appendices	The plan will miss integration opportunities in the basic plan and annexes
	Ask County to integrate hazard mitigation into the County EOP	The City EOP still remains unintegrated

Action-2025-Hoboken-016. Historic Preservation and Capital Improvements of City Hall

Lead Agency:	Public Safety
Supporting Agencies:	Public Health, OEM, Administration
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	City Hall facilities are antiquated and need to be updated to reduce the transmission and exposure to COVID19.
Description of the Solution:	The City is developing an Engineering Infection Plan (EIP) that organizes phases of capital improvements around milestones for re-opening city facilities to the public.
Estimated Cost:	High
Potential Funding Sources:	UASI, HSGP, City Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,4,5,6,7
Benefits:	EIP will reduce the exposure of employees to COVID19 and the employer from workers compensation claims, and lost productivity from staff members out of work.
Impact on Socially Vulnerable Populations:	Ensures safer access to essential government services for residents who may lack digital alternatives or healthcare access.
Impact on Future Development:	Sets a precedent for integrating public health considerations into civic infrastructure upgrades.
Impact on Critical Facilities/Lifelines:	Improves the resilience and functionality of City Hall, a central hub for emergency coordination and public services.
Impact on Capabilities:	Enhances the city's ability to maintain operations during public health emergencies through improved facility design.
Climate Change Considerations:	Not Applicable
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Preventative Measures, Emergency Services
Priority	High

Alternatives

Action	Evaluation
No Action	-
Rely Solely on Temporary Safety Measures	Reactive and insufficient for long-term protection
Limit Public Access to City Hall Permanently	Reduces government transparency and accessibility for residents

8. CITY OF JERSEY CITY

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the City of Jersey City with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Jersey City, describes who participated in the planning process, assesses Jersey City's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

8.1 Hazard Mitigation Planning Team

The City of Jersey City identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many City departments. The Office of Emergency Management represented the community on the Hudson County HMP Planning Partnership and Steering Committee and supported the local planning process 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.

Table 8-1 summarizes City officials who participated in the development of the annex and in what capacity. Additional documentation of the City's planning activities through Planning Partnership meetings is included in Volume I.

Table 8-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Walter Kierce, Office of Emergency Management Coordinator Address: 715 Summit Avenue, Jersey City, NJ 07306 Phone Number: 201-547-5681 Email: wkierce@njjcps.org	Name/Title: Martin Valenti, Office of Emergency Management Deputy Coordinator Address: 715 Summit Avenue, Jersey City, NJ 07306 Phone Number: (201) 547-5684 Email: mvalenti@njjcps.org
National Flood Insurance Program Floodplain Administrator	
Name/Title: Raymond Meyer, Building Official Address: City Hall Annex One Jackson Square (364 MLK Drive) Jersey City, NJ 07305 Phone Number: (201) 547-5055 Email: ConstructionCode@jcnj.org	
Additional Contributors	
Name/Title: Walter Kierce, Office of Emergency Management Coordinator Method of Participation: Participated in the planning process.	
Name/Title: Marty Valenti, Office of Emergency Management Deputy Coordinator Method of Participation: Participated in the planning process.	
Name/Title: Robert Daly, Office of Emergency Management Deputy Coordinator Method of Participation: Participated in the planning process.	
Name/Title: Raymond Meyer, Construction Official Method of Participation: Provided NFIP summary information.	

8.2 Community Profile

8.2.1 Brief History

According to the Jersey City website (http://www.cityofjerseycity.org):

'The territory comprising what is now known as Jersey City was a wilderness, occupied by the Lenni Lenape or Delawares, and governed by their tribal laws, until Henry Hudson, an English navigator, in the employ of the Dutch East India Company, seeking another route that would not require the passing of the Spanish coast to the East Indies, and failing in his mission, found these shores.'

Additionally, all of what is currently Jersey City was carved out of what was originally the Township of Bergen in the County of Bergen. During the 19th century, Jersey City played an integral role in the Underground Railroad. Four routes through New Jersey converged in the city.

8.2.2 Location

The City of Jersey City is located in the central portion of Hudson County, between the Hackensack River and Newark Bay to the west, and the Hudson River and Upper New York Bay to the east. It is the largest city in Hudson County, in terms of population and geographic size (14.79 square miles). The City has 21.7 miles of waterfront along the rivers and bays. The City is bordered to the north by the Town of Secaucus, The Township of North Bergen, the City of Union City, and the City of Hoboken, to the south by the City of Bayonne, to the east by the Hudson River and Upper Bay, and to the west by Hackensack River, Newark Bay and the Town of Kearny.

8.2.3 Governing Body Format

The City is governed by a Mayor and City Council made up of nine members: one council member for each of the City's six wards, plus three at-large council members who represent the entire City. This governing body will be responsible for the adoption and implementation of this plan.

8.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for Jersey City was 292,449, a 16.6 percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 7.0 percent of the population is 5 years of age or younger, 11.2 percent is 65 years of age or older, 9.9 percent is non-English speaking, 14.7 percent is below the poverty threshold, and 7.7 percent is considered disabled.

8.2.4.1 ALICE IN HUDSON COUNTY

ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. While conditions have improved for some households, many continue to struggle, especially as wages fail to keep pace with the rising cost of household essentials (housing, child care, food, transportation, health care, and a basic smartphone plan). Households below the ALICE Threshold – ALICE households plus those in poverty – can't afford the essentials.

According to 2021 Point-in-Time-Data from ALICE, 24 percent of the 292,000 households in Hudson County are ALICE households (compared to the state average of 26 percent). The median household income in Hudson is $80,329, and the County sees a labor force participation rate of 69 percent. Hudson County faces low household income compared to the state average of $89,296 and while the County does carry a 3 percent higher labor participation rate compared to state numbers, 15 percent of Hudson households live in poverty.

8.3 Jurisdictional Capability Assessment and Integration

Jersey City performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

8.3.1 Planning and Regulatory Capability and Integration

Table 8-2 summarizes the planning and regulatory tools that are available to Jersey City.

Table 8-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	State Uniform Construction Code Chapter 131 – Construction Codes, Uniform	State and Local	Department of Infrastructure
How has or will this be integrated with the HMP and how does this reduce risk? Building codes establish standards and regulations for construction and occupancy including structural integrity and fire safety. Adherence to building codes ensures that structures are designed and built to meet current safety standards, minimizing the risk of injury to life or property as a result of structural or systemic failure. State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14. Chapter 15 of Building and Housing. Adopted Uniform Construction Code.				
Zoning/Land Use Code	Yes	Chapter 345 – Zoning	Local	Department of Infrastructure
How has or will this be integrated with the HMP and how does this reduce risk? This Chapter is adopted pursuant to the Municipal Land Use Law (MLUL), (N.J.S.A. 40:55D-1 et seq.), in order to promote and protect the public health, safety, morals and general welfare. The purposes of this Chapter are as follows: To plan and guide the appropriate use or development of all land in a manner which will promote the public health, safety, morals and general welfare by means including the following: a. By regulating the location of buildings and establishing standards of development; establishing setback lines of buildings designed for residential, commercial, industrial, office or other uses; and by fixing reasonable standards to which buildings or structures shall conform. b. By prohibiting incompatible uses and prohibiting uses, buildings or structures which are incompatible with the character of development of the permitted uses within specified zoning districts and surrounding areas. c. By regulating alterations of existing buildings and preventing such additions to and alterations or remodeling of existing buildings or structures that would not comply with the restrictions and limitations imposed hereunder. d. By conserving the value of land and buildings throughout the City.				
Subdivision Code	Yes	Chapter 299-Subdivision of Land	Local	Department of Infrastructure
How has or will this be integrated with the HMP and how does this reduce risk? Provides rules, regulations, and standards to guide land subdivision in the City of Jersey City in order to promote the public health, safety, convenience, and general welfare of the municipality. It shall be administered to ensure orderly growth and development, the conservation, protection and proper use of land and adequate provision for circulation, utilities, and services.				
Site Plan Code	Yes	Chapter 345, Section 16 – When Site Plan Approval Required	Local and County	Department of Infrastructure
How has or will this be integrated with the HMP and how does this reduce risk? Prior to the issuance of a permit for the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any building or other structure, the excavation or filling of soil, or for the use or change of use of an existing property, site plan review and approval shall be required.				
Stormwater Management Code	Yes	Chapter 345, Article VI – Stormwater Control	Local	Jersey City Municipal Utilities Authority (MUA)
How has or will this be integrated with the HMP and how does this reduce risk? The environmental objectives of these requirements are to reduce pollution from municipal Separate Sewer Systems, direct discharges to surface waters, and CSO events; to reduce flooding and streambank Erosion; and promote rainwater harvesting for re-use on-site.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P.L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

Growth Management	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Environmental Protection Ordinance(s)	Yes	Chapter 345, Section 10 – Environmental Commission	Local	Environmental Commission
How has or will this be integrated with the HMP and how does this reduce risk? Promotes the protection and conservation of land, air, water and other natural resources within the territorial limits of the City. Such promotion shall consist of educating the public and advising the city government about the best methods for protecting and conserving these resources.				
Flood Damage Prevention Ordinance	Yes	Chapter 172 – Flood Damage Prevention	Federal, State, County and Local	Department of Infrastructure
How has or will this be integrated with the HMP and how does this reduce risk? It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed: a. To protect human life and health; b. To minimize expenditure of public money for costly flood control projects; c. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; d. To minimize prolonged business interruptions; e. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer line, streets, bridges located in areas of special flood hazard; f. To help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas; g. To insure that potential buyers are notified that property is in an area of special flood hazard; and h. To ensure that those who occupy the areas of special flood hazard assume responsibility for their action. The ordinance is not the model code coordinated ordinance and will require update.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	Yes	Sub-Article IV – Division of Municipal Emergency Management and Homeland Security	Local	Jersey City Office of Emergency Management and Homeland Security
How has or will this be integrated with the HMP and how does this reduce risk? The Municipal Emergency Management Homeland Security Coordinator/Director shall be responsible for the planning, coordinating, response and recovery from all facets of natural and manmade disasters and the conduct of Emergency Management/Homeland Security operations within the City of Jersey City and shall be a member and shall serve as chairman of the Local Emergency Planning Council (LEPC).				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	Jersey City Mater Plan, 2021	Local	Division of City Planning
How has or will this be integrated with the HMP and how does this reduce risk? The Master Plan will: a. Reexamine and revise the land Use and Open Space Elements. b. Incorporate the recommendations from the recently updated Housing and Circulation elements. c. Develop a coordinated and cohesive approach to the planning process and recommendations through overall themes or lenses. d. Frame goals and benchmarks at all scales of planning (citywide, Ward-based, and localized neighborhood level interactions).				
Capital Improvement Plan	Yes	Municipal Budget	Local	Office of the Mayor
How has or will this be integrated with the HMP and how does this reduce risk? Ch. 3 Administration of Government, Article 3 (Mayor); adopted 9/8/81; 3-11 Powers and duties. Amended 6/14/95 by Ordinance Number 95-050.				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	Yes	Jersey City Stormwater Management Plan	Local	Jersey City Municipal Utilities Authority
How has or will this be integrated with the HMP and how does this reduce risk? The Stormwater Management Plan is required by NJAC 7:14A-25 (Municipal Stormwater Regulations) and was created in accordance with NJAC 7:8 (Stormwater Management Rules). The plan addresses groundwater recharge, stormwater quantity, and stormwater quality by implementing the General Permit requirements referred to as the statewide basic requirements. The goals of the plan include (many related to the goals in the Hudson County HMP update): reduce flood damage, minimize stormwater runoff from new development, reduce soil erosion from any developments or construction projects, assure adequately designed culverts, bridges and other in-stream structures, maintain groundwater recharge, preventing increases of non-point source pollution, maintain the biological integrity of streams and drainage channels, minimizing stormwater runoff pollutants from new and existing developments, and protecting public safety through proper design and operation of stormwater management facilities.				
Open Space Plan	Yes	Jersey City Master Plan Open Space Element, 2021	Local	Division of City Planning
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Community Forest Management Plan	Yes	Jersey City Forestry Standards, 2018	Local	Division of Sustainability – Tree Services
How has or will this be integrated with the HMP and how does this reduce risk? This Jersey City Forestry Standards provides information on City Tree maintenance and tree plantings in the City Public Right-of-Way, which includes all public sidewalks. Section I - General Street Tree Information - contains an overview of City Tree policies and procedures. Residents and business owners interested in planting or removing a City Tree or who want to report a tree-related issue to the City should review this section of the Forestry Standards. Section II- Detailed Tree Planting Standards - contains detailed information on how to properly install, maintain, protect, and remove street trees within Jersey City. Information in this section includes required tree pit specifications, tree species standards, soil and mulching requirements, and surface treatments. Developers, contractors, and anyone undertaking street tree work should read this section of the Forestry Standards.				
Transportation Plan	Yes	See below	Local	Division of City Planning
How has or will this be integrated with the HMP and how does this reduce risk? • Circulation section of the circulation amendment of the Jersey City Master Plan • Bicycle Master Plan (2019) – acts as a guide for future development of protected and unprotected bike lanes, other bike infrastructure, and bike safety initiatives across the City. • Pedestrian Enhancement Plan (2018) – developed to prioritize the pedestrian experience in the City through improvements to safety and aesthetics, and to promote placemaking. The objectives of this plan are to provide recommendations (physical and policy-based) to improve safety that are context-sensitive and that prioritize the pedestrian experience; and to improve aesthetics and placemaking through pedestrian amenities. • Vision Zero Plan (2019) - serves as a blueprint for reaching our traffic safety goals, and ensuring that safe, comfortable transportation on Jersey City streets is a right for everyone who moves to and through our community				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	Yes	Jersey City Climate and Energy Action Plan, 2021	Local	Division of Sustainability
How has or will this be integrated with the HMP and how does this reduce risk? A strategic framework for reducing greenhouse gas emissions and responding to the impacts that climate change will have on a community. The plan conveys both the overarching vision and a detailed roadmap to guide local efforts. The measures take advantage of both common-sense approaches and cutting-edge policies that local government is uniquely positioned to implement — actions that can reduce energy use and waste, create local jobs, improve air quality, preserve our local landscape and history, reduce risk to people and property, and in many other ways benefit Jersey City for years to come.				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	City of Jersey City Emergency Operations Plan	Local	Department of Public Safety Jersey City Office of Emergency Management and Homeland Security
How has or will this be integrated with the HMP and how does this reduce risk? Ensures that emergency response actions are aligned with long-term risk reduction strategies. This coordination improves preparedness, speeds up response, and reduces the overall impact of disasters on people, property, and infrastructure.				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

8.3.2 Development and Permitting Capability

Table 8-3 summarizes the capabilities of Jersey City to oversee and track development.

Table 8-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	Yes	Through New Jersey Department of Environmental Protection (NJDEP), New Jersey Sports and Exposition Authority (NJSEA) and Jersey City Planning and Zoning.
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	By construction.
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	No	-
Describe the level of buildout in your jurisdiction.	N/A	City is entirely built out.

8.3.3 Administrative and Technical Capability

Table 8-4 summarizes potential staff and personnel resources available to Jersey City and their current responsibilities that contribute to hazard mitigation.

Table 8-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	The City Planning Board consists of nine (9) members and two (2) alternates appointed pursuant to N.J.S.A. 40:55D-23.1. The Planning Board has the powers and duties provided by the Municipal Land Use Law.
Zoning Board of Adjustment	Yes	The City of Jersey City Zoning Board of Adjustment consists of seven (7) regular members and four (4) alternate members. The Board will hear and decide appeals where it is alleged by the appellant that there is an error in any order, requirement, decision, or refusal made by the Zoning Officer or any other City Official, based on or made in the enforcement of the zoning ordinance. The Board will also hear and decide requests for interpretation of the Zoning Map or Ordinance or for decisions upon other special questions upon which such Board is authorized to pass by any Zoning or Official Map Ordinance in accordance with the Municipal Land Use Law.
Planning Department	Yes	The Division of City Planning maintains a staff of licensed professional planners and trained experts who are responsible for comprehensively planning the rational development of land in the City.
Mitigation Planning Committee	No	-

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Environmental Board/Commission	Yes	The Jersey City Environmental Commission shall consist of seven members and two alternates to be appointed by the Mayor. The purpose of the Environmental Commission is to ▪ Promote the protection and conservation of land, air, water, and other natural resources within the City. ▪ Assist the City in the proper development and use of resources by coordinating planning efforts of various departments, agencies and agents who provide environmental services. ▪ Promote the protection of the public health by educating the public and advising City government about environmental health hazards. ▪ Conduct research into the use and possible use of open land areas of Jersey City. ▪ Keep an index of all open areas whether publicly or privately owned, including open marshlands, swamps and other wetlands, in order to obtain information on the proper use of areas. ▪ Have the authority to recommend to the Planning Board plans and programs for the development and use of such areas for inclusion in the Jersey City Master Plan. ▪ Study and make recommendations concerning open space preservation, water resources management, air pollution control, solid waste management, noise control, environmental appearance, marine resources, protection of flora and fauna and any other environmental concerns. ▪ Assist in the formulation of funding plans submitted to the Green Acres/Green Trust program of the New Jersey Department of Environmental Protection. Act and serve as the official Jersey City Sustainable Green Team that is responsible for pursuing and maintaining the City's Sustainable Jersey Certification through collaboration with the municipality and public to develop and support sustainable initiatives for the City.
Open Space Board/Committee	Yes	Jersey City Open Space Trust Fund Advisory Board
Economic Development Commission/Committee	Yes	The Department of Housing, Economic Development & Commerce (HEDC) is responsible for planning and overseeing the orderly growth and development of Jersey City's residential, commercial, non-profit, and industrial sectors through the coordination of agencies, comprehensive planning, regulation of land use, disbursement of state and federal grant funds, permitting, and code enforcement. HEDC is also responsible for contributing to the public welfare and quality of life by supporting social services providers, staffing public boards, enforcing building codes, housing codes, rent and tenant laws, and issuing licenses to businesses.
Public Works/Highway Department	Yes	The Jersey City Department of Public Works is a hands-on team of professionals dedicated to supporting and improving Jersey City's infrastructure, from Jersey City's roads, parks, traffic signals to graffiti removal, sanitation and recycling, and much more, all looking to maintain and improve quality of life for our residents.

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Construction/Building/Code Enforcement Department	Yes	The Office of the Construction Code Official is empowered by the Jersey City Municipal Code to: • Administer and enforce the State Uniform Construction Code and conduct the centralized issuance of permits and inspection services. • Condemn properties in accordance with N.J.S.A. 40:48-2.3 et seq. • Issue permits for alterations, additions, new buildings, and inspections both before and after occupancy is permitted. • Conduct ongoing inspections of elevators, swimming pools, backflow preventers. Register non-state licensed contractors.
Emergency Management/Public Safety Department	Yes	A coordinating agency for the City of Jersey City for all issues related to emergency management and homeland security. The agency plans and prepares for natural and man-made disasters, educates the public about preparedness, coordinates emergency response and recovery, and collects and disseminates emergency information.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	On an as-needed basis.
Mutual aid agreements	Yes	UASI, County, surrounding municipalities
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	Human Resources
Other: Jersey City Shade Tree Committee	Yes	The Jersey City Shade Tree Committee was established in 2019 to further the proliferation and preservation of shade trees in the City of Jersey City and to ensure the many benefits trees provide to current and future inhabitants of the City.
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Administration/Engineering, Housing, Economic Development and Commerce, City Planner
Engineers or professionals trained in building or infrastructure construction practices	Yes	Administration/Engineering, Architecture, Economic Development and Commerce, Planning, Construction Code Official, Housing Code Director
Planners or engineers with an understanding of natural hazards	Yes	Housing, Economic Development and Planning
Staff with expertise or training in benefit/cost analysis	Yes	Administrator's Office
Professionals trained in conducting damage assessments		
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Planning Department
Staff that work with socially vulnerable populations or underserved communities		
Environmental scientists familiar with natural hazards	No	-

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Surveyors	Yes	Administrator's Office
Emergency manager	Yes	Public Safety, Emergency Management
Grant writers	Yes	Administrator's Office
Resilience Officer	Yes	Division of City Planning and Office of Sustainability
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

8.3.4 Fiscal Capability

Table 8-5 summarizes financial resources available to Jersey City.

Table 8-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Yes – Through Public Safety and Emergency Management, City Board that manages distribution of the City's Open Space funding

8.3.5 Education and Outreach Capability

Table 8-6 summarizes the education and outreach resources available to Jersey City.

Table 8-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	PIO from the Mayor's Office
Personnel skilled or trained in website development	Yes	_____
Hazard mitigation information available on your website	Yes	On the City's Office of Emergency Management website, they provide information on emergency preparedness. They also provide a link to sign up for their reverse 911 system (SwiftReach 911). In the event of a weather emergency, the City also has information on parking rules, snow removal, how to report downed trees and wires, and a link to the Hudson County winter emergency plan.
Social media for hazard mitigation education and outreach	Yes	The City and departments use Facebook and Twitter to provide hazard mitigation related education and outreach
Citizen boards or commissions that address issues related to hazard mitigation	Yes	• Resilient Jersey City is a non-profit organization that aims to support and augment disaster preparedness, response and relief, and emergency response organizations and initiatives for Jersey City. They seek to provide quality resources for existing organizations and introduce new initiatives that aid the strength of our community including conducting informational initiatives with the emergency planning and response community, community leaders in and out of government, the private sector and the public. • Jersey City Stormwater Treatment and Resiliency Team (JC START) is a collaboration of community members, city government, local and regional nonprofit organizations, and universities to make Jersey City a sustainable community that prioritizes best stormwater management practices such as green infrastructure. • Sustainable Jersey City is a network of green community groups and individuals within the City who have come together to advance efforts to move the City toward a more sustainable and resilient future. They have numerous projects and a website (https://www.sustainablejc.org/) with multiple resources including maps that show the location of certified green buildings and solar installations, food system maps, and community gardens. • Environmental Commission is made up of volunteer city residents who are appointed by the mayor to serve three-year terms. The Commission was established to promote the protection and conservation of land, air, water, and other natural resources within the City, and to educate the public.
Warning systems for hazard events	Yes	Residents can sign up online for SwiftReach 911 which provides notifications via phone and text messaging. The City also provides preparedness information on City website and weather warnings and updates on City website and social media accounts. The City also uses Register Ready, a registry that allows city residents with disabilities or access and functional needs and their families, friends and associates an opportunity to provide information to emergency response agencies, so emergency responders can better plan to serve them in a disaster or other emergency.
Natural disaster/safety programs in place for schools		

Outreach Resources	Available? (Yes/No)	Comment
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	The Office of Diversity & Inclusion works to ensure equality of economic opportunity for all Jersey City residents. We collaborate with City departments and community partners to empower residents through business and workforce advancement opportunities. As the most diverse city in the country, Jersey City truly represents a melting pot of nations, ethnicities, and cultural traditions. Known as NJ's "Golden Door," Jersey City served as a gateway for those who passed the Statue of Liberty to step onto our shores through Ellis Island. Linguistic diversity also sets Jersey City apart, with 72 different languages spoken in City schools.
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	The Department of Health and Humans Services utilizes multiple ways to reach out to residents of the City regarding health and public services. The Department could post information regarding hazards on their website and incorporate into their current education programs.

8.3.6 Community Classifications

Table 8-7 summarizes classifications for community programs available to Jersey City.

Table 8-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	2	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Sustainable Jersey	Yes	Silver	December 13, 2021
Other: Organizations with mitigation focus (advocacy group, non-government)	N/A	-	-

N/A = Not applicable

— = Unavailable

8.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 8-8 summarizes the adaptive capacity for each identified hazard of concern and the City’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 8-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Moderate
Geological Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

8.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 8-1 is responsible for maintaining this information.

8.4.1 NFIP Statistics

Table 8-9 summarizes the NFIP policy and claim statistics for Jersey City.

Table 8-9. Jersey City NFIP Summary of Policy and Claim Statistics

# Policies	**1,122**
# Claims (Losses)	**1,808**
Total Loss Payments	**$54,583,071.35**
# Repetitive Loss Properties (NFIP definition)	**220**
# Repetitive Loss Properties (FMA definition)	**1**
# Severe Repetitive Loss Properties (NFIP definition)	**21**
# Severe Repetitive Loss Properties (FMA definition)	**21**

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2024

8.4.2 Flood Vulnerability Summary

Table 8-10 provides a summary of the NFIP program in Jersey City.

Table 8-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Waterfront areas that along the Hudson and Hackensack River
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	Unknown
How do you make Substantial Damage determinations?	Cost estimates of jobs, and compare to market value by tax assesor
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	0
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	0
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	yes
NFIP Compliance	
What local department is responsible for floodplain management?	Construction official
Are any certified floodplain managers on staff in your jurisdiction?	no
Do you have access to resources to determine possible future flooding conditions from climate change?	no
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Yes What ever is available
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	none
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Cost estimate
What are the barriers to running an effective NFIP program in the community, if any?	FEMA discrepancy list
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	From about 5 years ago and the list was not current
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	None
What is the local law number or municipal code of your flood damage prevention ordinance?	172
What is the date that your flood damage prevention ordinance was last amended?	2006

NFIP Topic	Comments
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	yes
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Refer to planning section
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	Unsure

8.5 Population Growth and 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 8-11 through Table 8-13.

Table 8-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2019				
Total Permits				7074
Permits within SFHA	0	0	0	0
2020				
Total Permits				5116
Permits within SFHA	0	0	0	0
2021				
Total Permits				5997
Permits within SFHA	0	0	0	0
2022				
Total Permits				5993
Permits within SFHA	0	0	0	0
2023				
Total Permits				5638
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 8-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Residential buildings (Apartment/Condos)	Residential	28 Stories / 242 Units	10 Provost St	Flood	Complete
Residential buildings (Apartment/Condos)	Residential	240 Units	2955 Kennedy Blvd		Complete
Residential buildings (Apartment/Condos)	Residential	45 Units	380 Newark Ave	Flood	Complete
Residential buildings (Apartment/Condos)	Residential	364 Units	25 Park Ln		Complete
Residential buildings (Apartment/Condos)	Residential	539 Units	90 Columbus Dr	Flood	Complete
Residential buildings (Apartment/Condos)	Residential	6 Stories/69 Units	362 Summit Ave		Complete
Residential buildings (Apartment/Condos)	Residential	6 Stories/20 Units	323 Pine St		Complete
Residential buildings (Apartment/Condos)	Residential	6 Stories/25 Units	469 Newark		Complete
Residential buildings (Apartment/Condos)	Residential	7 Stories/ 80 units	121 Garabrant St		Complete
Residential buildings (Apartment/Condos)	Residential	12 Stories/221 Units	333 Grand St	Flood	Complete
Residential buildings (Apartment/Condos)	Residential	7 stories/17 Units	143 Newark Ave		Complete
Residential buildings (Apartment/Condos)	Residential	37 Stories/358 Units	75 14th Street		Complete
Residential buildings (Apartment/Condos)	Residential	79 Stories/781 Units	99 Hudson	Flood	Complete
Residential buildings (Apartment/Condos)	Residential	14 Stories/132 Unit	97 Newkirk		Complete
Residential buildings (Apartment/Condos)	Residential	18 Stories/180 Units	321 Warren	Flood	Complete
Residential buildings (Apartment/Condos)	Residential	7 Story/42 Units	76 Cottage St		Complete
Residential buildings (Apartment/Condos)	Residential	7 Stories/10 Units	141 Newark		Complete
Residential buildings (Apartment/Condos)	Residential	45 Stories/452 Units	1 Park View		Complete
Residential buildings (Apartment/Condos)	Residential	6 Stories/198 Units	15 Carbon		Complete

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Residential buildings (Apartment/Condos)	Residential	16 Stories/267 Units	55 Jordan		Complete
Residential buildings (Apartment/Condos)	Residential	68 Stories	605 Pavonia		Complete
Residential buildings (Apartment/Condos)	Residential	507 Units	351 Marin Blvd	Flood	Complete
Residential buildings (Apartment/Condos)	Residential	10 Stories/82 Units	460 Grand	Flood	Complete
Residential buildings (Apartment/Condos)	Residential	6 Stories/631 Units	400 Claremont		Complete
Residential buildings (Apartment/Condos)	Residential	6 Stories/45 Units	211 Baldwin		Complete
Residential buildings (Apartment/Condos)	Residential	336 Units	180 River Dr	Flood	Complete
Residential buildings (Apartment/Condos)	Residential	6 Stories/45 Units	348 Baldwin		Complete
Residential buildings (Apartment/Condos)	Residential	20 Stories	837 Jersey Ave	Flood	Complete
Residential buildings (Apartment/Condos)	Residential	750 Units	25 Columbus		Complete
Residential buildings (Apartment/Condos)	Residential	34 Stories/392 Units	88 Regent	Flood	Complete
Residential buildings (Apartment/Condos)	Residential	6 Stories/99 Units	244 St Pauls		Complete
Residential buildings (Apartment/Condos)	Residential	6 Stories/79 Units	762 Montgomery		Complete
Residential buildings (Apartment/Condos)	Residential	7 Stories/35 Unit	338 Newark		Complete
Residential buildings (Apartment/Condos)	Residential	27 Stories/432 Units	618 Pavonia		Complete

** Only location-specific hazard zones or vulnerabilities identified.*

Table 8-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A

8.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Jersey City's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

8.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the City are shown in Figure 8-1 through Figure 8-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Jersey City has significant exposure. The maps show the location of potential new development, where available.

Figure 8-1. Jersey City Hazard Area Extent and Location Map 1

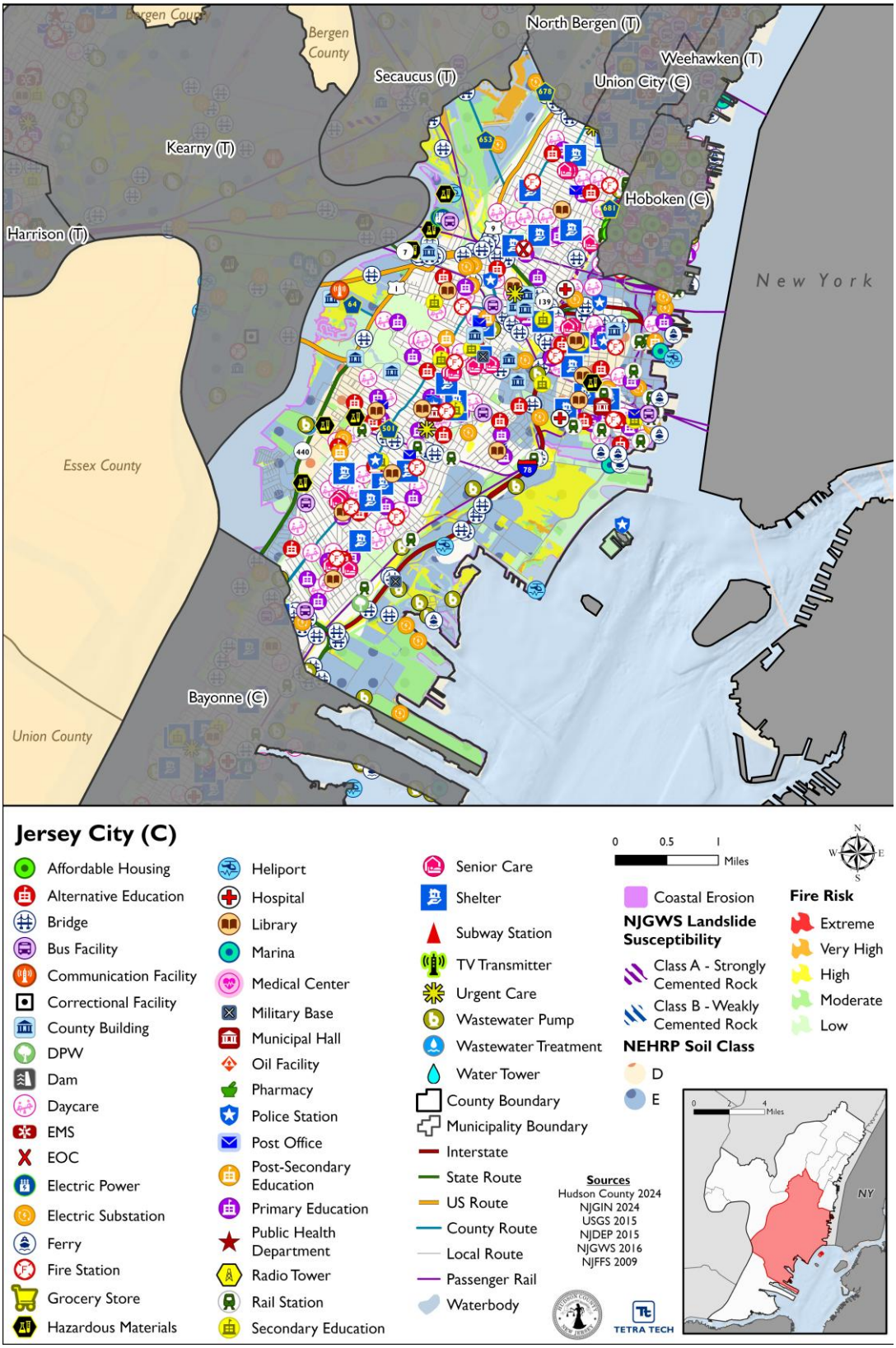


Figure 8-2. Jersey City Hazard Area Extent and Location Map 2

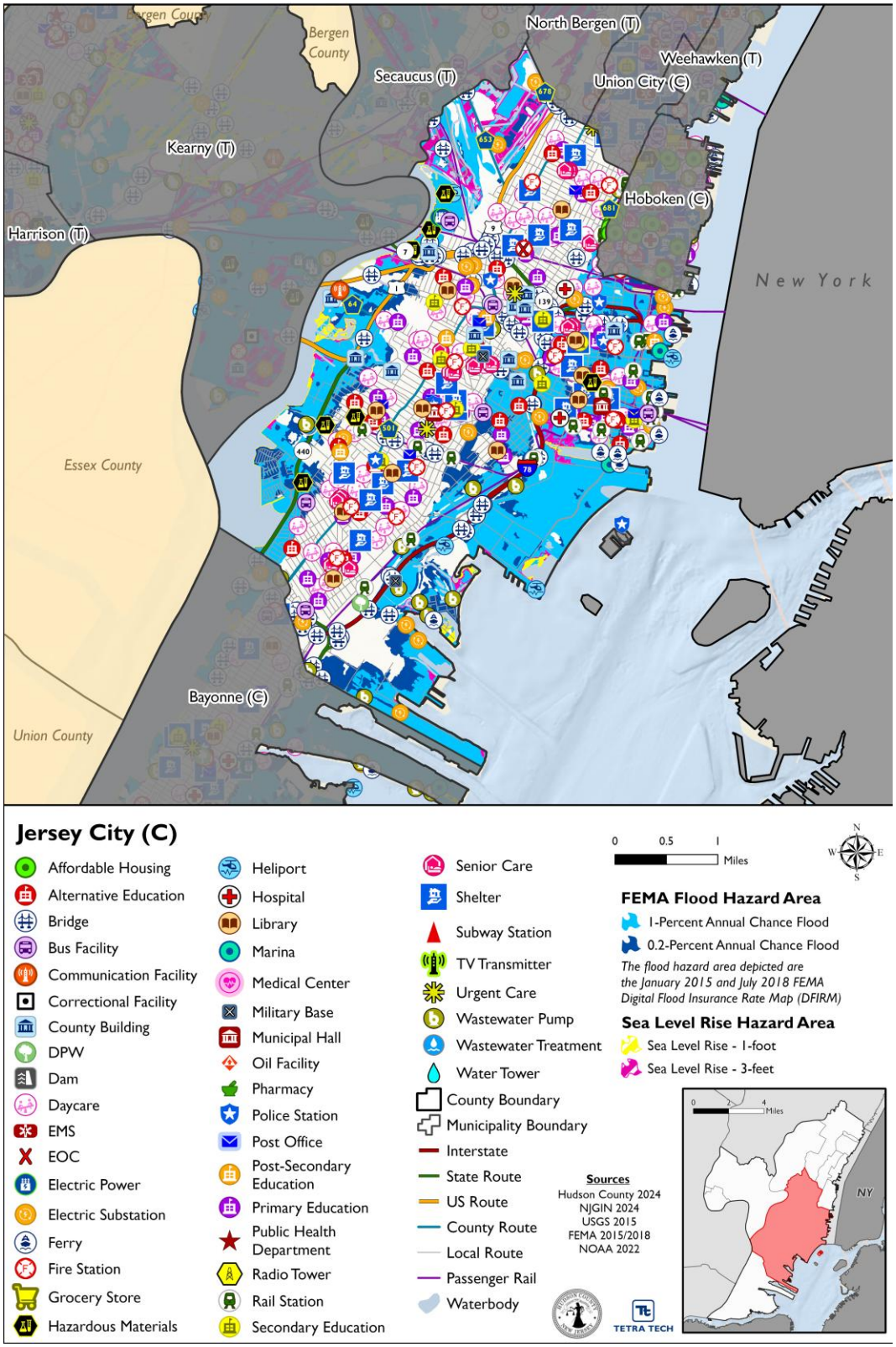
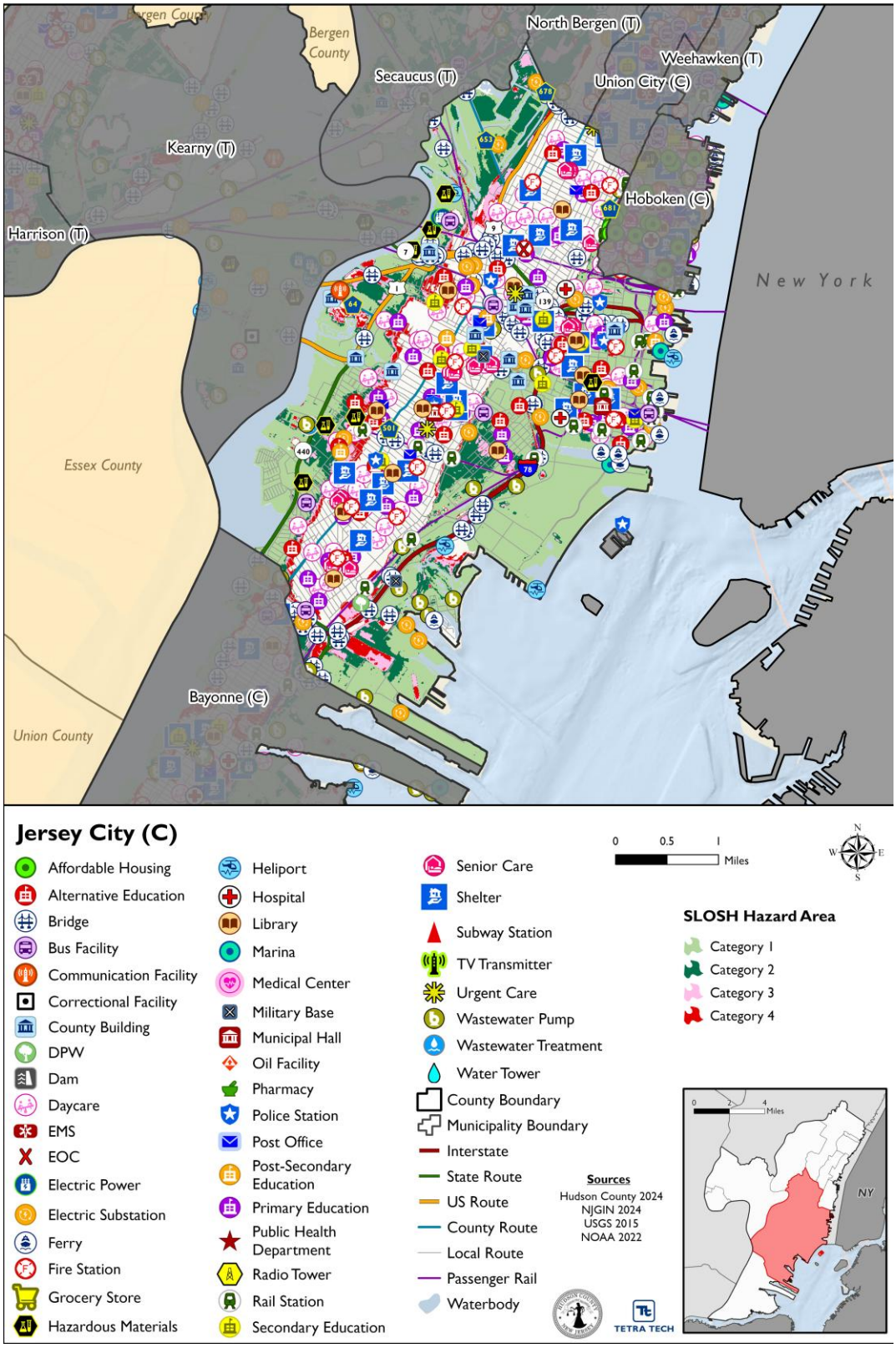


Figure 8-3. Jersey City Hazard Area Extent and Location Map 3



8.6.2 Hazard Event History

The history of natural and non-natural hazard events in Jersey City is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 8-14 provides details on loss and damage in Jersey City during hazard events since the last hazard mitigation plan update.

Table 8-14. Hazard Event History in Jersey City

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Jersey City
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	No physical damages reported at municipal level.
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	Localized looding reported at several streets within Jersey City; flooded roadways and homes, fallen tree branches, power lines.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	Widespread flooding reported at several streets within Jersey City; flooded roadways and homes, fallen tree branches, power lines.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Jersey City
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	Power outages reported

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

8.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Jersey City .

8.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. Jersey City reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the City indicated the following:

- None Identified

Table 8-15 shows Jersey City's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 8-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Low
Drought	Medium
Extreme Temperatures	Medium
Flood	High
Geological Hazards	Medium
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

8.6.3.2 Critical Facilities

Table 8-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Jersey City:

- None Identified

Table 8-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	2% Annual Chance Event
2nd St. Station	Rail Station	X	X
2nd Street HBLR Station	Rail Station	X	X
Academy of Excellence Preschool	Daycare	X	X
Academy Sub	Electric Substation	X	X
Acrilex Inc.	Hazardous Materials	X	X
Addventures in Learning III	Daycare	X	X
Baby Galileo Daycare and Preschool	Daycare	-	X
Bankers Trust	Electric Substation	X	X
Beloved Community Charter School	Alternative Education	X	X
Bright Horizons at Marin Blvd Jersey City	Daycare	X	X
Bus Terminal - Exchange Place	Bus Facility	X	X
CHARLOTTE AVE S.B. RAMP	Bridge	X	X
COLDEN ST GRAND ST	Bridge	X	X
COLDEN ST GRAND ST	Bridge	X	X
COLES ST & CONRAIL	Bridge	X	X
CONRAIL	Bridge	X	X
CONRAIL	Bridge	X	X
CORNELISON AVENUE	Bridge	X	X
Dr. Michael Conti School	Primary Education	X	X
Dr. Ronald E. Mc Nair/Academic High School	Secondary Education	X	X
Early Beginnings Day School	Daycare	-	X
East Side Pump Station	Wastewater Pump	-	X
Elementis Dpc Inc.	Hazardous Materials	X	X
Elementis Dpc Inc.	Hazardous Materials	X	X
Elementis Dpc Inc.	Hazardous Materials	X	X
Elementis Dpc Inc.	Hazardous Materials	X	X
ERIE STREET	Bridge	X	X
Essex St. Station	Rail Station	-	X
Exchange Pl. Station	Rail Station	X	X

Name	Type	Vulnerability	
		1% Annual Chance Event	2% Annual Chance Event
Exchange Place	Subway Station	X	X
Exchange Place Station	Rail Station	X	X
First Christian Pentecostal Academy	Primary Education	X	X
Frank R Conwell School	Primary Education	X	X
Future Stars Daycare & Preschool	Daycare	X	X
Garden Preschool Cooperative	Daycare	-	X
GBCA Jersey City Head Start at Lincoln Park Preschool Center	Daycare	-	X
Genesis Educational Center	Alternative Education	X	X
Global Container	Electric Substation	X	X
Goldman Sachs	Electric Substation	X	X
Greenville Bus Co.	Bus Facility	-	X
Grove Street	Bridge	-	X
Grove St.	Subway Station	X	X
Grove St. Station	Rail Station	X	X
Haborside Ferry Terminal	Ferry	X	X
HACK RVR Ramp D CR 659	Bridge	X	X
Hamilton Park Health Care Center	Senior Care	X	X
Hamilton Park Montessori School	Primary Education	-	X
Harborside Station	Rail Station	X	X
Harismus Cove Station	Rail Station	X	X
Harold E. ""Buddy"" Demellier Jr. Operations Center	County Building	X	X
HBLR & Conrail (MP 3.27)	Bridge	-	X
HBLR & CONRAIL	Bridge	-	X
HC Sheriffs Department/911 Communic	Communication Facility	X	X
Holland Tunnel	Electric Substation	X	X
Hudson County Plaza	County Building	-	X
Hudson County Public Safety Building	County Building	X	X
Hudson County Roads Department	County Building	X	X
Hudson Generating Station	Hazardous Materials	X	X
Hudson Generating Station	Hazardous Materials	X	X
Hudson Generating Station	Hazardous Materials	X	X
Hudson Generating Station	Hazardous Materials	X	X
Hudson Generating Station	Hazardous Materials	X	X
Hudson Generating Station	Hazardous Materials	X	X
Hudson Generating Station	Hazardous Materials	X	X
Hudson Generating Station	Hazardous Materials	X	X
Hudson Generating Station	Hazardous Materials	X	X

Name	Type	Vulnerability	
		1% Annual Chance Event	2% Annual Chance Event
Hudson Generating Station	Hazardous Materials	X	X
Hudson Generating Station	Hazardous Materials	X	X
Hudson Generating Station	Hazardous Materials	X	X
Hudson Montessori	Alternative Education	X	X
Hugo Schnitzer	Electric Substation	X	X
I-78 & Coles Street	Bridge	X	X
International Learning Center	Daycare	-	X
Ivy Primary Prep	Daycare	-	X
J.C. and Marion Switch	Electric Power	X	X
James J. Ferris High School	Secondary Education	X	X
Jersey Ave. Station	Rail Station	X	X
Jersey City City Hall	Municipal Hall	X	X
JERSEY CITY FIRE DEPARTMENT ENGINE 2	Fire Station	X	X
JERSEY CITY FIRE DEPARTMENT ENGINE 5 TOWER LADDER 6	Fire Station	X	X
Jersey City Medical Center	Hospital	X	X
JERSEY CITY	Post Office	-	X
JERSEY CITY FIRE DEPARTMENT ENGINE 6 LADDER 2	Fire Station	-	X
Jersey City MUA	Wastewater Treatment	-	X
Kiddie Academy of Hamilton Park	Daycare	X	X
Learning Ladders Early Education Center	Daycare	-	X
Liberty Harbor-Marin Boulevard Ferry Terminal	Ferry	X	X
Liberty Landing marina	Marina	X	X
Liberty State Park Helistop	Heliport	-	X
Liberty State Park Ferry Terminal	Ferry	X	X
Liberty State Park Station	Rail Station	X	X
LUIS MUNOZ MARIN BLVD	Bridge	X	X
Main Library	Library	-	X
Marin Blvd. Station	Rail Station	X	X
MCNAIR ACADEMIC HIGH SCHOOL	Shelter	X	X
MIDDLE SCHOOL 4	Shelter	X	X
MONMOUTH COLES & CONRAIL	Bridge	X	X
Montgomery & WEST Side Bus	Bus Facility	X	X
Morgan Street Sub.	Electric Substation	X	X
Nacote Ck & Lindbergh Av	Bridge	X	X
National Guard	Military Base	X	X
Newport	Subway Station	X	X

Name	Type	Vulnerability	
		1% Annual Chance Event	2% Annual Chance Event
Newport Ferry Terminal	Ferry	X	X
Newport Helistop	Heliport	X	X
Newport Station	Rail Station	X	X
Newport Switch	Electric Substation	X	X
Newport Yacht Club	Marina	X	X
Nicholas Galvanizing Co. Inc.	Hazardous Materials	X	X
NJ 139	Bridge	X	X
N.J. Regional Day School – Jersey City	Alternative Education	-	X
NJ TRANSIT	Bridge	X	X
Number 4 Middle School	Primary Education	X	X
Oil Storage Facility	Hazardous Materials	X	X
Our Lady Of Czestochowa	Primary Education	X	X
Our Lady Of Czestochowa	Primary Education	X	X
Park View Academy	Daycare	X	X
PATH Caisson	Electric Substation	X	X
PATH Washington	Electric Substation	X	X
Paulus Hook Ferry Terminal	Ferry	X	X
PAVONIA BRANCH	Library	X	X
Pavonia/Newport Station	Rail Station	X	X
PENHORN CREEK	Bridge	X	X
PENHORN CREEK	Bridge	X	X
PERFECTO OYOLA BIBILIOTECA CRIOLLA & CULTURAL CENT	Library	-	X
PERSHING FIELD HOUSE	Shelter	X	X
Pine Street Pump Station	Wastewater Pump	X	X
Playscape	Daycare	-	X
PORT JERSEY BLVD	Bridge	-	X
PORT AUTHORITY OF NEW YORK AND NEW JERSEY POLICE - HEADQUARTERS	Police Station	X	X
Port Liberte Ferry Terminal	Ferry	X	X
PSE&G - Hudson Helistop	Heliport	X	X
PSE&G Hudson Generating Station	Electric Power	X	X
Pump Station 1	Wastewater Pump	X	X
Pump Station 2	Wastewater Pump	X	X
Pump Station 3	Wastewater Pump	X	X
Pump Station 3B	Wastewater Pump	X	X
Pump Station 3C	Wastewater Pump	X	X
Pump Station 3D	Wastewater Pump	-	X

Name	Type	Vulnerability	
		1% Annual Chance Event	2% Annual Chance Event
Pump Station 4	Wastewater Pump	X	X
Pump Station Bayside Park	Wastewater Pump	-	X
Pyramid Express Transportation	Bus Facility	X	X
Relief Area	Bridge	X	X
Rev. Dr. Ercel F. Webb School	Primary Education	X	X
Richard St. Station	Rail Station	-	X
River School Warren, A Bright Horizons School	Daycare	-	X
River School Newport, a Bright Horizons School	Daycare	X	X
RIVERSIDE ASSEMBLY OF GOD	Shelter	X	X
Riverside Early Learning Center	Daycare	X	X
RR BAYVIEW & PLANT RD	Bridge	X	X
RR & 5 ROADS	Bridge	X	X
Smart Start Academy	Daycare	-	X
Smile Pre School	Daycare	-	X
South Waterfront Switch	Electric Substation	X	X
St Peters Prep	Alternative Education	X	X
Starting Points of Hudson County	Daycare	-	X
Stevens Cooperative School, Newport Campus	Primary Education	X	X
The Atrium at Hamilton Park	Senior Care	X	X
The Brunswick School	Daycare	X	X
The Embankment School	Alternative Education	X	X
The French American Academy	Alternative Education	X	X
The Waldo School	Primary Education	X	X
Tropicana	Electric Substation	X	X
University of Phoenix - Jersey City	Post-Secondary Education	X	X
US 1&9 and Ramp C	Bridge	X	X
USPO Bulk Mail	Electric Substation	X	X
Viaquenti Academy	Daycare	X	X
Warren Street Ferry Terminal	Ferry	X	X
Waterfront Montessori	Alternative Education	X	X
West Side Pump Station	Wastewater Pump	-	X

Source: Hudson County; HIFLD; NJGIN

8.6.4 Identified Issues

After review of Jersey City's hazard event history, hazard rankings, hazard location, and current capabilities, Jersey City identified the following vulnerabilities within the community:

- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.
- Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:
    - Determine where the damage occurred within the community and if the damaged structures are in an SFHA.
    - Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.
    - Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.
    - Require permits for floodplain development.

  The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.

- There are 189 repetitive loss properties and 11 severe repetitive loss properties in the City of Jersey City. These 10 properties have been repetitively flooded as documented by paid NFIP claims.
- The City faces increasing flood risks due to more intense precipitation events. Incorporating best practices and the most up-to-date NFIP guidance will better protect the City, its residents, and their properties from potential damage, However, some of the City staff are not adequately trained to enforce NFIP regulations and/or floodplain management ordinances. Floodplain management and ordinance enforcement staff are not Certified Floodplain Managers.
- The City Hall building does not have a backup power source. During a power outage, City Hall cannot function properly and provide essential services to residents.
- As identified in the City's Resiliency Master Plan (Priority Area B1), Society Hill, a multi-family residential development has an existing walkway along its riverfront. The walkway, the residences, and Route 440 are susceptible to wave damage and flooding. There is a combined sewer overflow point at Newark Bay.
- Businesses in this area are prone to flooding. This area is being redeveloped and residential and mixed use properties will also be impacted from flooding.
- As identified in the City's Resiliency Master Plan (Priority Area C), many City and Regional assets including PSE&G facilities, rail yards, and industrial uses are located in this district. Marion gardens, a public housing complex is in this area. In addition, there are several combined sewer outfalls and contaminated sites in this area.
- During flood events, Area D is significantly impacted by water entering from the south through the Tidewater Basin and into Mill Creek and from the north through the Long Slip Canal at the Hoboken

border. These two flood entry points must be addressed in order to prevent flooding in the back end of the city which was historically a marshy area. This area also has vulnerable populations and pockets of poverty which merit special attention.

- As identified in the City's Resiliency Master Plan (Priority Area E), many City and Regional assets including City Hall, historic districts, major commercial and employment centers, historic districts, the PATH, Hudson Bergen Light Rail, and other critical facilities are located in the 100-year floodplain. There are six CSOs in this District.
- As identified in the City's Resiliency Master Plan (Priority Area E), many City and Regional assets including City Hall, historic districts, major commercial and employment centers, historic districts, the PATH, Hudson Bergen Light Rail, and other critical facilities are located in the 100-year floodplain. There are six CSOs in this District.
- This is the northern portion of Downtown Jersey City, including Newport and access to the Holland Tunnel. This area also contains critical facilities including the Holland Tunnel, PATH stations, ferry docks, and Hudson-Bergen Light Rail. CSOs also exist in this area.
- Outside of FEMA floodplain boundaries, the city does not have updated flood risk data showing areas subject to pluvial flooding, localized flooding from the combined sewer system, and surge risk. In addition, the City does not have flood scenarios showing the added risk of sea level rise and other climate-related changes.
- As outlined in Table 8-16, there are numerous critical facilities in the City that are exposed to the 1-percent annual chance flood area. These facilities may be susceptible to flood damage which can lead to infrastructure damage, outages, and disruption of services.

* This issue was identified as a specific area of concern based on resident response to the Hudson County Hazard Mitigation Citizen survey.

8.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

8.7.1 Past Mitigation Action Status

Table 8-17 indicates progress on the City's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

Table 8-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Jersey City-001	Repetitive Loss Properties	Flood, Severe Weather	City Construction Code Official	**Problem:** There are 189 repetitive loss properties and 11 severe repetitive loss properties in the City of Jersey City. These 10 properties have been repetitively flooded as documented by paid NFIP claims. **Solution:** Conduct outreach to 200 floodprone property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property owner information and develop a FEMA grant application and BCA to obtain funding to implement mitigation measures.	1.Ongoing 2. N/A	1.Include 2. No change 3. N/A
2020-Jersey City-002	Generator for City Hall	All hazards	City Administration	**Problem:** The City Hall building does not have a backup power source. During a power outage, City Hall cannot function properly and provide essential services to residents **Solution:** Purchase and install a permanent generator at City Hall.	1. In Progress 2. Funding hold, trying to identify funding grants for this activity.	1. Include 2. No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Jersey City-003	Update Flood Damage Prevention Ordinance	Flood	City Administration	**Problem:** The current flood damage prevention ordinance for Jersey City requires that new construction and substantial improvements in the SFHA be elevated to the base flood elevation. However, this does not meet the minimum of one feet above the base flood elevation set by the State of New Jersey. Many of the City's plans reference a higher standard but the adopted ordinance does not reflect that. **Solution:** Update the City's flood damage prevention ordinance to meet the minimum set by the State of New Jersey.	1. In Progress 2. In development. Project remains in conceptual design; The City is working with the City Administration and Code Ordinances to evaluate how to best update the flood ordinances for Jersey City	1. Include 2. No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Jersey City-004	Street Levee – Country Village	Coastal Storm, Flood, Severe Weather	Division of City Planning, Division of Engineering, Jersey City Municipal Utilities Authority, NJDOT, City Administration, OEM	**Problem:** As identified in the City's Resiliency Master Plan, there are residences and a major thoroughfare / evacuation route known as Route 440 located in 100-year floodplain. This area is identified as Priority Area A in the Plan. The area includes block groups that equal or exceed the regional poverty threshold and includes a combined sewer outfall at Newark Bay. **Solution:** Build a street level along the west side of Route 440. This will involve raising the roadway by three to four feet.	1.In Progress 2. This project has moved to New Jersey DOT as Primary Agency (state owned asset)	1.Discontinue 2. N/A 3. This project has moved to New Jersey DOT as Primary Agency (state owned asset)

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Jersey City-005	Society Hill Boardwalk Levee	Coastal Storm, Flood, Severe Weather	City Planning, Division of Architecture, City Administration, OEM	**Problem:** As identified in the City's Resiliency Master Plan (Priority Area B1), Society Hill, a multi-family residential development has an existing walkway along its riverfront. The walkway, the residences, and Route 440 are susceptible to wave damage and flooding. and Solution New or Existing Assets? Hazard(s) to be Mitigated Goals Met Lead and Support Agencies Potential Funding Sources Estimated Benefits Estimated Cost Timeline Priority Mitigation Category CRS Category There is a combined sewer overflow point at Newark Bay. **Solution:** Elevate the existing Hackensack RiverWalk five to six feet from its current grade. The walkway distance affected is approximately one mile in length.	1.In Progress 2. In design development, on hold due to funding	1.Include 2. No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Jersey City-006	Walkway Levee	Coastal Storm, Flood, Severe Weather	City Engineering and OEM	**Problem:** Businesses in this area are prone to flooding. This area is being redeveloped and residential and mixed use properties will also be impacted from flooding. **Solution:** Construct a walkway levee along the Morris Canal Greenway to protect the commercial businesses in this area as well as pending residential and mixed use development.	1.In Progress 2. In design development, on hold due to funding	1.Include 2. No change 3. N/A
2020-Jersey City-007	Marion & Lincoln Park Flood Control Measures	Coastal Storm, Flood, Severe Weather	City Planning, City Engineering, JC MUA, and OEM	**Problem:** As identified in the City's Resiliency Master Plan (Priority Area C), many City and Regional assets including PSE&G facilities, rail yards, and industrial uses are located in this district. Marion gardens, a public housing complex is in this area. In addition, there are several combined sewer outfalls and contaminated sites in this area. **Solution:** Implement various flood protection measures in this area of the City. This includes small-scale site specific floodwalls and wet and dry floodproofing.	1.In Progress 2. In design development, on hold due to funding and procurement	1.Include 2. No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Jersey City-008	Mill Creek – Implement Berms and Levees	Coastal Storm, Flood, Severe Weather	City Planning, City, MUA, NJ DOT, Engineering and OEM	**Problem:** During flood events, Area D is significantly impacted by water entering from the south through the Tidewater Basin and into Mill Creek and from the north through the Long Slip Canal at the Hoboken border. These two flood entry points must be addressed in order to prevent flooding in the back end of the city which was historically a marshy area. This area also has vulnerable populations and pockets of poverty which merit special attention. **Solution:** Install berms at vulnerable points north of Jersey Avenue to compensate for any residual flooding that is not deterred by elevating streets (Crescent Park area)	1.In Progress 2. In design development, on hold due to funding	1.Include 2. No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Jersey City-009	Engineering Study of Mill Creek / Bergen-Lafayette / Van Vorst Park / Hamilton Park	Coastal Storm, Flood, Severe Weather	City Planning, JCRA, JC MUA, NJ DOT. and Engineering	**Problem:** The Mill Creek Redevelopment area and Jersey City Medical Center are located in this area and are found within a 1% annual chance flood area and contains critical infrastructure. There is also a CSO in this area. **Solution:** Conduct a comprehensive engineering study be undertaken to address Area D, including the CSO (which has already been studied to some extent in the Mill Creek Initial Design + Finance Analysis and Recommendations prepared by Build it Green) as well as the threat of storm surge. The complexity of this area merits special attention in order to develop a long-term, costeffective solution that will thoroughly protect all of the residents, businesses, and infrastructure located therein.	1. In Progress 2. Change responsible party to Jersey City MUA	1. Discontinue 2. N/A 3. This will be moved to the Special District annex

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Jersey City-010	Dudley / Washington Street Levee	Coastal Storm, Flood, Severe Weather	Division of City Planning, Division of Engineering, OEM, Jersey City Municipal Utilities Authority, Port Authority, NJ Transit, NJDEP, NJDOT	**Problem:** As identified in the City's Resiliency Master Plan (Priority Area E), many City and Regional assets including City Hall, historic districts, major commercial and employment centers, historic districts, the PATH, HudsonBergen Light Rail, and other critical facilities are located in the 100-year floodplain. There are six CSOs in this District. **Solution:** Raise Dudley and Washington Streets three to four feet above grade.	1.In Progress 2. In design development, on hold due to funding identification and design concept	1.Include 2. No change 3. N/A
2020-Jersey City-011		Coastal Storm, Flood, Severe Weather	Division of City Planning, Division of Engineering, OEM, Jersey City Municipal Utilities Authority, Port Authority, NJ Transit, NJDEP, NJDOT	**Problem:** As identified in the City's Resiliency Master Plan (Priority Area E), many City and Regional assets including City Hall, historic districts, major commercial and employment centers, historic districts, the PATH, HudsonBergen Light Rail, and other critical facilities are located in the 100-year floodplain. There are six CSOs in this District. **Solution:** Convert this area into a Boardwalk levee with a height of up to 14 feet above mean sea level. Because the Waterfront Walkway is already in place, it would sit atop the levee and allow for additional space for outdoor recreation.	1.In Progress 2. In design development, on hold due to funding identification and design concept	1.Include 2. No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Jersey City-012	Rail Yard Flood Protection Barrier	Coastal Storm, Flood, Severe Weather	City Engineering, City Planning, and OEM in coordination with the City of Hoboken and NJ Transit.	**Problem:** This is the northern portion of Downtown Jersey City, including Newport and access to the Holland Tunnel. This area also contains critical facilities including the Holland Tunnel, PATH stations, ferry docks, and Hudson-Bergen Light Rail. CSOs also exist in this area. **Solution:** Develop a flood protection barrier along the south side of the NJ Transit rail yards. This would also include regrading road crossings two to three feet.	1.In Progress 2. In design development, on hold due to funding identification and design concept	1.Include 2. No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Jersey City-013	Wet Weather Pumping Stations	Coastal Storm, Flood, Severe Weather	City Engineering, City Planning and OEM in coordination with Jersey City MUA	**Problem:** This is the northern portion of Downtown Jersey City, including Newport and access to the Holland Tunnel. This area also contains critical facilities including the Holland Tunnel, PATH stations, ferry docks, and Hudson-Bergen Light Rail. CSOs also exist in this area. **Solution:** When the combined sewer system reaches capacity during heavy rainfall, water can be treated at a wet weather treatment facility before it is discharged to local water bodies. This method helps protect human health and the environment by reducing the amount of untreated combined sewage that overflows into the Hudson River by preventing storm water from flooding the sewer lines and coming back up into the streets.	1.No Progress 2. Department of Infrastructure does not have this project under their jurisdiction anymore and lacks any updates for this project.	1. Discontinue 2. N/A 3. Department of Infrastructure does not have this project under their jurisdiction anymore

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Jersey City-014	Flood Modeling	Coastal Storm, Flood, Severe Weather	Division of City Planning, Jersey City Municipal Utilities Authority, City Administration, OEM	**Problem:** Outside of FEMA floodplain boundaries, the city does not have updated flood risk data showing areas subject to pluvial flooding, localized flooding from the combined sewer system, and surge risk. In addition, the City does not have flood scenarios showing the added risk of sea level rise and other climate-related changes. **Solution:** A flood risk analysis inclusive of different flood events (5-year, 10-year, 100- year, etc.) and scenarios coupled with SLR projections will allow the city to identify specific areas where adaptation strategies will be most effective.	1.In Progress 2. The City is currently evaluating funding opportunities and determine scope of work for this feasibility study. Project is still in development.	1. Include 2.No change 3. N/A
2020-Jersey City-015	Flood Risk Awareness	Sea Level Rise and Flood	City Planning, Office of Sustainability, Office of Innovation, Health and Human Services, City Administration, OEM	**Problem:** Residents and business owners may not be aware of their flood risk, especially future risks related to climate change. **Solution:** A campaign, including an interactive mapping tool, to raise awareness of flood risk for homeowners, renters, at risk populations (socially vulnerable populations) businesses, and city staff.	1. No Progress 2. The Department of City Planning has decided to discontinue due to lack of funding and low priority for the City.	1. Discontinue 2. N/A 3. Planning has decided to discontinue

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Jersey City-016	Resilience Parks Feasibility	Coastal Storm, Flood, Severe Weather	Division of City Planning, Division of Engineering, OEM, Jersey City Municipal Utilities Authority, Division of Architecture	**Problem:** 40% of the city is located in the floodplain. The City does not have engineering studies to assess the feasibility of creating resiliency parks. **Solution:** Identify existing parks and open space or identify locations for new parks and open space to function as stormwater management, or resiliency, parks through the use of storage tanks and green infrastructure. Engineering studies would be used to create concept plans for funding opportunities.	1. No Progress 2. The Department of City Planning has decided to discontinue due to lack of funding and low priority for the City.	1. Discontinue 2. N/A 3. Planning has decided to discontinue

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Jersey City-017	Critical Facilities in Floodplain	Coastal Storm, Flood, Severe Weather	Division of City Planning, Division of Engineering, OEM, Resilient NJ	**Problem:** As outlined in Table 8-16, there are numerous critical facilities in the City that are exposed to the 1% annual chance flood area. These facilities may be susceptible to flood damage which can lead to infrastructure damage, outages, and disruption of services. **Solution:** Jersey City is part of the Jersey City team in the Resilient NJ program. As part of this program, the critical facilities outlined in Table 8-16 will be addressed through this program. Flood risk will be analyzed through a risk assessment and action plans will be developed for critical facilities in order to identify appropriate mitigation actions to address flooding.	1. Ongoing Capability 2. The City will continue to conduct outreach to flood-prone property owners and inform of viable mitigation alternatives; mitigation action has been impacted due to limited capacity and capability in the City	1. Include 2.No change 3. N/A

8.7.2 Additional Mitigation Efforts

In addition to the completed mitigation actions from the previous HMP, Jersey City identified the following mitigation efforts completed since the last HMP:

- None identified

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

- None identified

8.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Jersey City participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Jersey City would like to pursue in the future to reduce the effects of hazards. The actions 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 City priorities.

Table 8-18 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 8-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 8-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X	X			X					X
Drought	X	X			X					X
Extreme Temperatures	X	X			X					X
Flood	X	X		X	X	X	X		X	X
Geological Hazards	X	X			X					X
Severe Weather	X	X		X	X	X	X		X	X
Severe Winter Weather	X	X			X					X
Wildfire	X	X			X					X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 8-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
Action 2025-JerseyCity-001	Update Flood Damage Prevent Ordinance	1	1	1	1	1	1	0	1	1	0	1	1	0	1	**11**	**High**
Action 2025-JerseyCity-002	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	**13**	**High**
Action 2025-JerseyCity-003	Repetitive Loss Properties	1	1	1	1	0	0	0	1	1	1	1	1	1	1	**11**	**High**
Action 2025-JerseyCity-004	Floodplain Management Training	1	1	1	1	1	1	0	0	1	0	1	1	0	1	**10**	**Medium**
Action 2025-JerseyCity-005	Generator for City Hall	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**14**	**High**
Action 2025-JerseyCity-006	Society Hill Boardwalk Levee	1	1	1	1	1	0	0	0	1	1	1	-1	1	0	**9**	**Medium**
Action 2025-JerseyCity-007	Walkway Levee	1	1	1	1	1	0	0	0	1	1	1	-1	0	0	**8**	**Medium**
Action 2025-JerseyCity-008	Marion and Lincoln Park flood Control Measures	1	1	1	1	0	0	1	1	1	1	1	-1	1	0	**10**	**Medium**
Action 2025-JerseyCity-009	Mill Creek – Implement Berms and Levees	1	1	1	1	0	0	1	0	1	1	1	1	1	0	**10**	**Medium**

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
Action 2025-JerseyCity-010	Dudley/Washington Street Levee	1	1	1	1	0	0	0	1	1	1	1	1	1	0	**10**	**Medium**
Action 2025-JerseyCity-011	Hudson River Waterfront Boardwalk Levee	1	1	1	1	0	0	0	1	1	1	1	-1	1	0	**9**	**Medium**
Action 2025-JerseyCity-012	Rail Yard Flood Protection Barrier	1	1	1	1	0	0	0	0	1	1	1	-1	1	0	**8**	**Medium**
Action 2025-JerseyCity-013	Flood Modeling	1	1	1	1	0	0	1	0	1	1	1	-1	1	0	**9**	**Medium**
Action 2025-JerseyCity-014	Critical Facilities in Floodplain	1	1	1	1	1	0	1	1	1	1	1	1	1	0	**12**	**High**

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

Action 2025-JerseyCity-001. Update Flood Damage Prevent Ordinance

Lead Agency:	Floodplain Administrator
Supporting Agencies:	Construction Official, Administration, NFIP State Coordinator, FEMA Regional Office
Hazards of Concern:	Flood
Description of the Problem:	A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.
Description of the Solution:	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.
Estimated Cost:	Staff time
Potential Funding Sources:	Municipal budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,6
Benefits:	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.
Impact on Socially Vulnerable Populations:	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.
Impact on Future Development:	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.
Impact on Critical Facilities/Lifelines:	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.
Impact on Capabilities:	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.
Climate Change Considerations:	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	High

Alternatives	Action	Evaluation
	No Action	Current problem exists
	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage

Action 2025-JerseyCity-002. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	City OEM, City DPW
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
Description of the Solution:	The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 *Developing a Substantial Damage Management Plan* (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	3, 6
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
Impact on Capabilities:	This action improves disaster recovery capabilities.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
Mitigation Category	Local Plans and Regulations
CRS Category	Emergency Services, Preventative Measure
Priority	High

Alternatives	Action	Evaluation
	No Action	-
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements

Action 2025-JerseyCity-003. Repetitive Loss Properties

Lead Agency:	City Construction Code Official
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	There are 220 repetitive loss properties and 21 severe repetitive loss properties in the City of Jersey City. These 10 properties have been repetitively flooded as documented by paid NFIP claims.
Description of the Solution:	Conduct outreach to 200 floodprone property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property owner information and develop a FEMA grant application and BCA to obtain funding to implement mitigation measures.
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP, FMA
Implementation Timeline:	1-5 years
Goals Met:	1,2,3
Benefits:	Eliminates flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.
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:	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.
Impact on Critical Facilities/Lifelines:	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.
Impact on Capabilities:	Removing the risk from the immediate floodplain via acquisition of properties will free up resources for search and rescue and other emergency operations as needed.
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of severe rainfall, flash flooding, riverine flooding, and coastal flooding from sea level rise and storm surge events. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Levee around floodplain	Costly, not enough room
	Deployable flood barriers	Requires deployment. Residents may not have adequate time to deploy, especially those who are elderly or disabled.

Action 2025-JerseyCity-004.Floodplain Management Training

Lead Agency:	Floodplain Administrator	
Supporting Agencies:	City of Jersey City OEM	
Hazards of Concern:	Flood	
Description of the Problem:	The City faces increasing flood risks due to more intense precipitation events. Incorporating best practices and the most up-to-date NFIP guidance will better protect the City, its residents, and their properties from potential damage, However, some of the City staff are not adequately trained to enforce NFIP regulations and/or floodplain management ordinances. Floodplain management and ordinance enforcement staff are not Certified Floodplain Managers.	
Description of the Solution:	Provide training and/or certification for City staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.	
Estimated Cost:	Low	
Potential Funding Sources:	Municipal Budget	
Implementation Timeline:	1-5 years	
Goals Met:	2,5	
Benefits:	This action will increase the NFIP capabilities of the City and assure the City's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.	
Impact on Socially Vulnerable Populations:	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.	
Impact on Future Development:	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.	
Impact on Critical Facilities/Lifelines:	This action will enhance the City's current NFIP capabilities.	
Impact on Capabilities:	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.	
Mitigation Category	Education and Awareness Program	
CRS Category	Public Information	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Hire outside contractors for floodplain administration	Costly
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role

Action 2025-JerseyCity-005.Generator for City Hall

Lead Agency:	City Administration
Supporting Agencies:	-
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	The City Hall building does not have a backup power source. During a power outage, City Hall cannot function properly and provide essential services to residents.
Description of the Solution:	Purchase and install a permanent generator at City Hall.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA HMGP
Implementation Timeline:	1-5 years
Goals Met:	1,2,6,7
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:	This action results in protection of a critical facility that could support future development.
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:	This action ensures continuity of operations to maintain capabilities.
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services
Priority	High

Alternatives

Action	Evaluation
No Action	-
Microgrid	Costly and difficult to implement.
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-JerseyCity-006.Society Hill Boardwalk Levee

Lead Agency:	City Planning	
Supporting Agencies:	Division of Architecture, City Administration, OEM	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	As identified in the City's Resiliency Master Plan (Priority Area B1), Society Hill, a multi-family residential development has an existing walkway along its riverfront. The walkway, the residences, and Route 440 are susceptible to wave damage and flooding. There is a combined sewer overflow point at Newark Bay.	
Description of the Solution:	Elevate the existing Hackensack RiverWalk five to six feet from its current grade. The walkway distance affected is approximately one mile in length.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA HMGP	
Implementation Timeline:	5 or more years	
Goals Met:	1,2,3,7	
Benefits:	Elevating the walkway will reduce flood risk, protect infrastructure, and enhance public access.	
Impact on Socially Vulnerable Populations:	The project improves safety and accessibility for at-risk residents.	
Impact on Future Development:	Increased flood protection will encourage safe and sustainable development.	
Impact on Critical Facilities/Lifelines:	It safeguards Route 440 and nearby utilities from storm damage.	
Impact on Capabilities:	The project strengthens the city's resilience and emergency response capacity.	
Climate Change Considerations:	Elevation accounts for sea level rise and supports long-term climate adaptation.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Rely on Natural Buffers	May not provide sufficient protection against extreme weather events
	Flood Barriers and Temporary Levees	Short-term fix

Action 2025-JerseyCity-007. Walkway Levee

Lead Agency:	City Engineering	
Supporting Agencies:	City OEM	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	Businesses in this area are prone to flooding. This area is being redeveloped and residential and mixed use properties will also be impacted from flooding.	
Description of the Solution:	Construct a walkway levee along the Morris Canal Greenway to protect the commercial businesses in this area as well as pending residential and mixed use development and reduce NFIP claims.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA HMGP, FMA	
Implementation Timeline:	5 or more years	
Goals Met:	1,2,3,6,7	
Benefits:	The levee will protect existing businesses and future residential/mixed-use developments from flooding.	
Impact on Socially Vulnerable Populations:	Safeguards low-income workers and residents who may be disproportionately affected by flood damage.	
Impact on Future Development:	Flood protection will support safe redevelopment and attract investment in the area.	
Impact on Critical Facilities/Lifelines:	It helps maintain business continuity and protects nearby infrastructure from flood-related disruptions.	
Impact on Capabilities:	Enhances the city's flood management infrastructure and supports long-term resiliency planning.	
Climate Change Considerations:	The levee provides a proactive defense against rising sea levels and more intense storms.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Install flood gates at key entry points	May fail during extreme weather events
	Elevate the individual buildings	Costly

Action 2025-JerseyCity-008. Marion and Lincoln Park Flood Control Measures

Lead Agency:	City Planning
Supporting Agencies:	City Engineering, JCMUA, and City OEM
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	As identified in the City's Resiliency Master Plan (Priority Area C), many City and Regional assets including PSE&G facilities, rail yards, and industrial uses are located in this district. Marion gardens, a public housing complex is in this area. In addition, there are several combined sewer outfalls and contaminated sites in this area.
Description of the Solution:	Implement various flood protection measures in this area of the City. This includes small-scale site specific floodwalls and wet and dry floodproofing.
Estimated Cost:	High
Potential Funding Sources:	FEMA FMA, HMGP
Implementation Timeline:	5 or more years
Goals Met:	1,2,3,6,7
Benefits:	Targeted flood protection will reduce risk to critical infrastructure, public housing, and contaminated sites.
Impact on Socially Vulnerable Populations:	Protects Marion Gardens residents, who may face disproportionate harm from flooding.
Impact on Future Development:	Enhances the viability of redevelopment by reducing environmental and flood-related risks.
Impact on Critical Facilities/Lifelines:	Safeguards PSE&G facilities, rail yards, and industrial assets essential to regional operations.
Impact on Capabilities:	Builds local capacity for site-specific flood resilience and supports broader resiliency goals.
Climate Change Considerations:	Measures address increasing flood frequency and intensity due to climate change.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Structural Flood Control Projects, Property Protection
Priority	Medium

Alternatives	**Action**	**Evaluation**
	No Action	-
	Construct a large perimeter levee	Space constraints, costly
	Relocate critical infrastructure and housing	Costly, logistically challenging

Action 2025-JerseyCity-009. Mill Creek – Implement Berms and Levees

Lead Agency:	City Planning
Supporting Agencies:	JCMUA, NJDOT, City Engineering, City OEM
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	During flood events, Area D is significantly impacted by water entering from the south through the Tidewater Basin and into Mill Creek and from the north through the Long Slip Canal at the Hoboken border. These two flood entry points must be addressed in order to prevent flooding in the back end of the city which was historically a marshy area. This area also has vulnerable populations and pockets of poverty which merit special attention.
Description of the Solution:	Install berms at vulnerable points north of Jersey Avenue to compensate for any residual flooding that is not deterred by elevating streets (Crescent Park area).
Estimated Cost:	High
Potential Funding Sources:	FEMA FMA, HMGP
Implementation Timeline:	1-5 years
Goals Met:	1,2,6,7
Benefits:	Protect historic structures, public housing, PSE&G substation, and Jersey City Medical Center
Impact on Socially Vulnerable Populations:	Protects low-income and at-risk communities from recurring flood damage.
Impact on Future Development:	Enhances the viability of redevelopment in flood-prone zones by improving baseline protection.
Impact on Critical Facilities/Lifelines:	Helps maintain access and functionality of roads and utilities in the Crescent Park area.
Impact on Capabilities:	Complements street elevation efforts and strengthens the city's layered flood defense strategy.
Climate Change Considerations:	Berms provide passive, long-term protection against rising sea levels and more frequent storm events.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Structural Flood Control Projects, Property Protection
Priority	Medium

Alternatives	**Action**	**Evaluation**
	No Action	-
	Relying solely on street elevation	This will help, but not a complete fix
	Install pumping stations	Expensive, requires constant maintenance

Action 2025-JerseyCity-010. Dudley/Washington Street Levee

Lead Agency:	Division of City Planning
Supporting Agencies:	City Engineering, City OEM, JCMUA, Port Authority, NJ Transit, NJDEP, NJDOT
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	As identified in the City's Resiliency Master Plan (Priority Area E), many City and Regional assets including City Hall, historic districts, major commercial and employment centers, historic districts, the PATH, Hudson Bergen Light Rail, and other critical facilities are located in the 100-year floodplain. There are six CSOs in this District.
Description of the Solution:	Raise Dudley and Washington Streets three to four feet above grade.
Estimated Cost:	High
Potential Funding Sources:	FEMA FMA, HMGP
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,6
Benefits:	Alleviating flooding in several neighborhood sand protects critical infrastructure and historic structures.
Impact on Socially Vulnerable Populations:	• Elevating the road will provide a safe path of ingress and egress for residents of flood prone areas. • Emergency vehicles will have the ability to assist residents during a flood event.
Impact on Future Development:	• Ensuring safe travel encourages businesses and residents to remain in or move to the area. • Economic resiliency is increased by reducing the time needed for businesses to access facilities to reopen following a flood.
Impact on Critical Facilities/Lifelines:	Roadway will be less likely to incur damage from floodwaters and be able to remain open for travel.
Impact on Capabilities:	Economic resiliency is increased by reducing the time needed for businesses to access facilities to reopen following a flood.
Climate Change Considerations:	Consideration should be taken for more frequent flood events as a result of increases in rainfall frequency and severity.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Structural Flood Control Projects, Property Protection
Priority	Medium

Alternatives	**Action**	**Evaluation**
	No Action	-
	Relocate critical infrastructure and housing	Costly, logistically challenging
	Install deployable flood barriers around key facilities	Requires manual deployment, doesn't provide continuous protection

Action 2025-JerseyCity-011. Hudson River Waterfront Boardwalk Levee

Lead Agency:	Division of City Planning	
Supporting Agencies:	City Engineering, City OEM, JCMUA, Port Authority, NJ Transit, NJDEP, NJDOT	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	As identified in the City's Resiliency Master Plan (Priority Area E), many City and Regional assets including City Hall, historic districts, major commercial and employment centers, historic districts, the PATH, Hudson Bergen Light Rail, and other critical facilities are located in the 100-year floodplain. There are six CSOs in this District.	
Description of the Solution:	Convert this area into a Boardwalk levee with a height of up to 14 feet above mean sea level. Because the Waterfront Walkway is already in place, it would sit atop the levee and allow for additional space for outdoor recreation.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA FMA, HMGP	
Implementation Timeline:	1-5 years, 5 or more years	
Goals Met:	1,2,3,6	
Benefits:	Protect Jersey City's residents and infrastructure	
Impact on Socially Vulnerable Populations:	This action will protect the vulnerable populations residing downstream from the Boardwalk levee by identifying and implementing the identified flood mitigation measure(s).	
Impact on Future Development:	This action will strengthen the integrity of the Boardwalk levee system, a critical facility.	
Impact on Critical Facilities/Lifelines:	Not applicable	
Impact on Capabilities:	This action will provide protection from the flood hazard to future development located downstream from the Boardwalk levee system.	
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. These changes are likely to increase flood risks. This action seeks to reduce the risk of flood.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection, Structural Flood Control Projects	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Implement only green infrastructure	Does not provide elevation or structural protection
	Elevate only critical infrastructure and buildings	Does not provide area wide protection

Action 2025-JerseyCity-012. Rail Yard Flood Protection Barrier

Lead Agency:	City Engineering	
Supporting Agencies:	City Planning, City OEM, City of Hoboken, NJ Transit	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	This is the northern portion of Downtown Jersey City, including Newport and access to the Holland Tunnel. This area also contains critical facilities including the Holland Tunnel, PATH stations, ferry docks, and Hudson-Bergen Light Rail. CSOs also exist in this area.	
Description of the Solution:	Develop a flood protection barrier along the south side of the NJ Transit rail yards. This would also include regrading road crossings two to three feet.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA FMA, HMGP	
Implementation Timeline:	1-5 years, 5 or more years	
Goals Met:	1,2,3,6	
Benefits:	Protect Jersey City's residents and infrastructure	
Impact on Socially Vulnerable Populations:	Reduces flood risk for transit-dependent populations and nearby low-income residents by protecting key access routes.	
Impact on Future Development:	Enhances the area's resilience, making it more attractive for commercial and residential investment.	
Impact on Critical Facilities/Lifelines:	Protects essential infrastructure like the Holland Tunnel, PATH, ferry docks, and light rail from flood disruptions.	
Impact on Capabilities:	Strengthens the city's integrated flood defense system and improves emergency response access.	
Climate Change Considerations:	Provides long-term protection against sea level rise and more frequent, intense storm events.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection, Structural Flood Control Projects	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Install Flood Gates at Tunnel and Transit Entrances	Only protects specific entry points
	Elevate Only the Rail Yards and Transit Facilities	Leaves adjacent roads and neighborhoods vulnerable

Action 2025-JerseyCity-013. Flood Modeling

Lead Agency:	Division of City Planning
Supporting Agencies:	JCMUA, City Administration, City OEM
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Outside of FEMA floodplain boundaries, the city does not have updated flood risk data showing areas subject to pluvial flooding, localized flooding from the combined sewer system, and surge risk. In addition, the City does not have flood scenarios showing the added risk of sea level rise and other climate-related changes.
Description of the Solution:	A flood risk analysis inclusive of different flood events (5-year, 10-year, 100-year, etc.) and scenarios coupled with SLR projections will allow the city to identify specific areas where adaptation strategies will be most effective.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA HMGP, PDM, FMA
Implementation Timeline:	1-5 years, 5 or more years
Goals Met:	1,2,3,4,5,6,7
Benefits:	This will facilitate the identification of viable projects for capital budget prioritization and future grant applications.
Impact on Socially Vulnerable Populations:	Identifying high-risk areas helps prioritize protections for vulnerable communities often overlooked in traditional flood maps.
Impact on Future Development:	Provides data-driven guidance for resilient land use, zoning, and infrastructure planning.
Impact on Critical Facilities/Lifelines:	Enables targeted protection of essential services by revealing hidden or future flood risks.
Impact on Capabilities:	Enhances the city's ability to plan, prioritize, and implement effective adaptation strategies.
Climate Change Considerations:	Incorporates sea level rise and climate projections to future-proof flood mitigation efforts.
Mitigation Category	Local Plans and Regulations, Education and Awareness Programs
CRS Category	Preventative Measures, Public Information
Priority	Medium

Alternatives	**Action**	**Evaluation**
	No Action	-
	Rely Solely on FEMA Flood Maps	Often excludes local based information
	Use Historical Flood Records	Past events do not reflect future risks under changing climate conditions

Action 2025-JerseyCity-014. Critical Facilities in Floodplain

Lead Agency:	Division of City Planning	
Supporting Agencies:	City Engineering, City OEM, Resilient NJ	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	As outlined in Table 8-16, there are numerous critical facilities in the City that are exposed to the 1-percent annual chance flood area. These facilities may be susceptible to flood damage which can lead to infrastructure damage, outages, and disruption of services.	
Description of the Solution:	Jersey City is part of the Jersey City team in the Resilient NJ program. As part of this program, the critical facilities outlined in Table 8-16 will be addressed through this program. Flood risk will be analyzed through a risk assessment and action plans will be developed for critical facilities in order to identify appropriate mitigation actions to address flooding.	
Estimated Cost:	High	
Potential Funding Sources:	NJDEP, Resilient NJ	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3,6	
Benefits:	Reduce flood impacts on critical facilities	
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders and emergency managers to maintain critical services that socially vulnerable populations rely on.	
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.	
Impact on Critical Facilities/Lifelines:	This action will protect these critical facilities, maintaining the critical services that it provides.	
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.	
Climate Change Considerations:	This action addresses anticipated increases in flooding frequency and severity through protection to the 1-percent annual chance flood level.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Emergency Services, Property Protection	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area
	Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.

9. TOWN OF KEARNY

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Town of Kearny with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Kearny, describes who participated in the planning process, assesses Kearny's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

9.1 Hazard Mitigation Planning Team

The Town of Kearny identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Town departments. The Office of Emergency Management represented the community on the Hudson County HMP Planning Partnership and Steering Committee and supported the local planning process 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.

Table 9-1 summarizes Town officials who participated in the development of the annex and in what capacity. Additional documentation of the Town's planning activities through Planning Partnership meetings is included in Volume I.

Table 9-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Richard Poplaski, Kearny Police Department/Deputy Office of Emergency Management Coordinator Address: 237 Laurel Avenue, Kearny, NJ 07032 Phone Number: 201-998-8800 Email: rpoplaskijr@kearnynjpd.org	Name/Title: Joseph P. Mastandrea, Kearny Fire Department/ Deputy Office of Emergency Management Coordinator Address: 402 Kearny Ave, Kearny, NJ 07032 Phone Number: 201-991-1402 Email: jmastandrea@kearnynj.org
National Flood Insurance Program Floodplain Administrator	
Name/Title: Anthony Chisari, Floodplain Administrator/Construction Official/Zoning Officer Address:402 Kearny Ave, Kearny, NJ 07032 Phone Number: 201-955-7880 Email: tchisari@kearnynj.org	
Additional Contributors	
Name/Title: Richard Poplaski, Deputy OEM Coordinator Method of Participation: Assisted in providing updated information towards capabilities, NFIP, building permits and new development and hazard event history.	
Name/Title: Joseph P. Mastandrea, Kearny Fire Department/ Deputy Office of Emergency Management Coordinator Method of Participation: Participated in the planning process.	
Name/Title: Anthony Chisari, Floodplain Administrator/Construction Official/Zoning Officer Method of Participation: Participated in the planning process.	
Name/Title: David Silva, P.E., Assistant Town Engineer Method of Participation: Participated in the planning process.	

Name/Title: Kevin Murphy Public Works Director Method of Participation: Participated in the planning process.
Name/Title: Stephen D. Marks, Town Administrator Method of Participation: Participated in the planning process.
Name/Title: Patricia Carpenter, Town Clerk Method of Participation: Participated in the planning process.
Name/Title: George King, Kearny Police Department Chief/ Office of Emergency Management Coordinator Method of Participation: Participated in the planning process.
Name/Title: Amanda Martino, Grant Rite Management Corporation Method of Participation: Participated in the planning process.
Name/Title: Thomas Aloi, Grant Rite Management Corporation Method of Participation: Participated in the planning process.

9.2 Community Profile

9.2.1 Brief History

Kearny was originally formed as a township by an Act of the New Jersey Legislature on April 8, 1867, from portions of Harrison Township. The town was named in honor of Major General Philip Kearny, a Civil War hero. The town has a rich history dating back to colonial times when it was part of a 30,000-acre land grant known as New Barbadoes Neck, acquired in 1668 by Major William Sandford. Since being incorporated as a town in 1899, the town of Kearny has grown into a diverse suburban community. Portions of the township were taken on July 3, 1895, to form East Newark.

9.2.2 Location

The Town of Kearny is located in western portion of Hudson County. It shares its borders with Bergen County to the north; the Passaic River to the west; Passaic River, East Newark and Harrison to the south and the Hackensack River to the east.

9.2.3 Governing Body Format

The governing body of the Town consists of the mayor and Town council. This governing body will be responsible for the adoption and implementation of this plan.

9.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for Kearny was 41,999, a 3.18 percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 6.4 percent of the population is 5 years of age or younger, 13.0

percent is 65 years of age or older, 13.4 percent is non-English speaking, 10.2 percent is below the poverty threshold, and 7.6 percent is considered disabled.

9.2.4.1 ALICE IN HUDSON COUNTY

ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. While conditions have improved for some households, many continue to struggle, especially as wages fail to keep pace with the rising cost of household essentials (housing, child care, food, transportation, health care, and a basic smartphone plan). Households below the ALICE Threshold – ALICE households plus those in poverty – can't afford the essentials.

According to 2021 Point-in-Time-Data from ALICE, 24 percent of the 292,000 households in Hudson County are ALICE households (compared to the state average of 26 percent). The median household income in Hudson is $80,329, and the County sees a labor force participation rate of 69 percent. Hudson County faces low household income compared to the state average of $89,296 and while the County does carry a 3 percent higher labor participation rate compared to state numbers, 15 percent of Hudson households live in poverty.

9.3 Jurisdictional Capability Assessment and Integration

Kearny performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

9.3.1 Planning and Regulatory Capability and Integration

Table 9-2 summarizes the planning and regulatory tools that are available to Kearny.

Table 9-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	State Uniform Construction Code; Chapter 14 – Building and Housing	State and Local	Construction Code Enforcement Department
How has or will this be integrated with the HMP and how does this reduce risk? Building codes establish standards and regulations for construction and occupancy including structural integrity and fire safety. Adherence to building codes ensures that structures are designed and built to meet current safety standards, minimizing the risk of injury to life or property as a result of structural or systemic failure. State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14. Chapter 15 of Building and Housing. Adopted Uniform Construction Code.				
Zoning/Land Use Code	Yes	Chapter 38-Zoning	Local	Construction Code Enforcement Department
How has or will this be integrated with the HMP and how does this reduce risk? An ordinance limiting and restricting to specific districts and regulating therein buildings and structures according to their construction and the nature and extent of their use and the nature and extent of the uses of land; regulating and restricting the height, number of stories and sizes of buildings and other structures; the size of yards, courts, and other open spaces, the density of population and the location, use and extent of buildings and structures for trade, industry, residence, or other purposes; providing for the administration and enforcement of the provisions herein; all for the purpose of promoting the health, safety, morals and general welfare of the Town of Kearny and its people.				
Subdivision Code	Yes	Chapter 36 – Subdivision and Site Plan	Local	Construction Code Enforcement Department
How has or will this be integrated with the HMP and how does this reduce risk? Ch. XXXVI Subdivision and Site Plan; Construction Code enforces; A subdivision application must include on the primary plat and site plan the location of existing features include previous flood elevations of water sources, ponds and marsh areas. If a proposed subdivision is traversed by a water sources, drainageway, channel or stream, there must be a stormwater easement or drainage right-of-way conforming substantially with the lines of the watercourses. There are minimum design and performance standards to control erosion, encourage and control infiltration and groundwater recharge, and control stormwater runoff quantity impacts of major developments.				
Site Plan Code	Yes	Chapter 36-Subdivision and Site Plan	Local	Construction Code Enforcement Department
How has or will this be integrated with the HMP and how does this reduce risk? Such regulations are deemed necessary to protect the character, stability and orderly development of all areas of the community; to secure safety from fire, flood, panic and other natural and manmade disasters and hazards; to encourage the proper location and design of streets; to promote a desirable visual and aesthetic environment through creative development techniques and good civic design and arrangements; to promote the conservation of open space and valuable resources; to prevent the degradation of the environment through improper land use; to provide adequate light, air and open space; and to provide rules, regulations and procedures which will guide the appropriate development of lands within the community in order to promote the public health, safety, morals and general welfare.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Stormwater Management Code	Yes	Chapter 36, Section 18 – Stormwater Management Control Regulations	Local	Water Department
How has or will this be integrated with the HMP and how does this reduce risk? Flood control, groundwater recharge, and pollutant reduction through the use of stormwater management measures, including green infrastructure best management practices (GI BMPs) and nonstructural stormwater management strategies. GI BMPs and low-impact development (LID) should be utilized to meet the goal of maintaining natural hydrology to reduce stormwater runoff volume, reduce erosion, encourage infiltration and groundwater recharge, and reduce pollution. GI GMPs and LID should be developed based upon physical site conditions and the origin, nature and the anticipated quantity, or amount of potential pollutants. Multiple stormwater management BMPs may be necessary to achieve the established performance standards for water quality, quantity, and groundwater recharge.				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P.L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

Growth Management	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Environmental Protection Ordinance	Yes	Chapter 29-Environmental Regulations	Local	Environmental Commission
How has or will this be integrated with the HMP and how does this reduce risk? For the purpose of controlling and reducing atmospheric pollution, it is hereby declared to be the policy of the Town to minimize air pollution, as herein defined, and prohibit excessive emission of the same; to establish standards governing the installation, maintenance and operation of equipment and appurtenances relating to combustion which are a potential source of air pollution; and in furtherance of this purpose to cooperate and coordinate these efforts with the State Department of Environmental Protection, Air Pollution, Air Pollution Control Program.				
Flood Damage Prevention Ordinance	Yes	Chapter 32 Floodplain Management	Local	Construction Code Official/Zoning Officer
How has or will this be integrated with the HMP and how does this reduce risk? The purposes and objectives of these regulations are to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific flood hazard areas through the establishment of comprehensive regulations for management of flood hazard areas, designed to: 1. Protect human life and health. 2. Prevent unnecessary disruption of commerce, access, and public service during times of flooding. 3. Manage the alteration of natural floodplains, stream channels and shorelines; 4. Manage filling, grading, dredging and other development which may increase flood damage or erosion potential. 5. Prevent or regulate the construction of flood barriers which will divert floodwater or increase flood hazards. 6. Contribute to improved construction techniques in the floodplain. 7. Minimize damage to public and private facilities and utilities. 8. Help maintain a stable tax base by providing for the sound use and development of flood hazard areas. 9. Minimize the need for rescue and relief efforts associated with flooding. 10. Ensure that property owners, occupants, and potential owners are aware of property located in flood hazard areas. 11. Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events. 12. Meet the requirements of the National Flood Insurance Program for community participation set forth in Title 44 Code of Federal Regulations, Section 59.22. The ordinance follows the model code coordinated ordinance from NJDEP.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	DRAFT Town of Kearny Master Plan Reexamination Report, 2021	Local	Mayor and Town Council
How has or will this be integrated with the HMP and how does this reduce risk? The Master Plan guides the long-term development and redevelopment of the Town.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Capital Improvement Plan	Yes	Municipal Budget	Local	Mayor and Town Council
How has or will this be integrated with the HMP and how does this reduce risk? Identifies funding for mitigation related projects as needed.				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	Yes	Municipal Stormwater Management Plan for the Town of Kearny, 2006	Local	Water Department
How has or will this be integrated with the HMP and how does this reduce risk? This plan contains all of the required elements described in N.J.A.C. 7:8 Stormwater Management Rules. The plan addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the lost of groundwater recharge that provides base flow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities.				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Town of Kearny Emergency Operations Plan, 2020	Local	Kearney Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? Town of Kearny Emergency Operations Plan was completed in 2020. The next update will be in 2024. The Town also has site-specific plans for the chemical facilities located in the Town.				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

9.3.2 Development and Permitting Capability

Table 9-3 summarizes the capabilities of Kearny to oversee and track development.

9.3.3 Administrative and Technical Capability

Table 9-4 summarizes potential staff and personnel resources available to Kearny and their current responsibilities that contribute to hazard mitigation.

Table 9-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	Yes	Construction Code Official
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	The Town needs to submit permits to NJDEP, the Building Department tracks the permits.
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	No	-
Describe the level of buildout in your jurisdiction.	N/A	The Town does not have a buildable lands inventory because 99% of the town is developed.

Table 9-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	The Planning Board consists of nine members with the powers and duties to adopt and amend the Master Plan; administer the provisions of the Land Subdivision Regulations and Site Plan Review Regulations; participate in the preparation and review of programs or plans; annually prepare a program of municipal capital improvement projects; and perform such other advisory duties as are assigned to it.
Zoning Board of Adjustment	Yes	The Zoning Board of Adjustment consists of 7 members with the powers and duties to interpret and construe the provisions of the Land Use Procedures (Chapter 35) and the Zoning Map. The Board may, in appropriate cases and subject to appropriate conditions and safeguards, grant variances.
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Town Administrator
Public Works/Highway Department	Yes	The Department of Public Works is responsible for the maintenance of 48 miles of paved roads and the following: ▪ Street sweeping ▪ Snow plowing and ice control ▪ Traffic line painting ▪ Traffic sign and street name sign maintenance ▪ 3 sanitary water pump stations ▪ 4 storm water pump stations ▪ 6,000+ feet of drainage ditches ▪ 3 tide gates on the Passaic River

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		▪ 1,000+ catch basins and manholes ▪ Municipal Recycling Drop-Off Center ▪ Building maintenance at all municipal buildings ▪ 2,000+ trees planted on municipal right of ways and municipal parks ▪ 90 miles of sewers ▪ Maintenance and repair of 100+ vehicles and pieces of equipment
Construction/Building/Code Enforcement Department	Yes	The Construction Code Enforcement Office is available to schedule inspections, check permit statuses, submit complaints, and issue permits.
Emergency Management/Public Safety Department	Yes	OEM Coordinator
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	It is the job of the Shade Tree Division of the Department of Public Works to maintain a healthy urban forest. This includes a routine pruning cycle, planting new trees, and removing hazardous and dead trees. The Department of Public Works maintains sewer lines and cleans catch basins.
Mutual aid agreements	Yes	Neighboring communities – Police and Fire
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	Human Resource
Other: Shade Tree Division	Yes	It is the job of the Shade Tree Division of the Department of Public Works to maintain a healthy urban forest. This includes a routine pruning cycle, planting new trees, and removing hazardous and dead trees.
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Neglia Engineering and Heyer & Gruel; Mott McDonald for MUA
Engineers or professionals trained in building or infrastructure construction practices	Yes	Neglia Engineering, Mott McDonalds for MUA
Planners or engineers with an understanding of natural hazards	Yes	Neglia Engineering and Heyer & Gruel; Mott McDonald for MUA
Staff with expertise or training in benefit/cost analysis	Yes	Chief Financial Officer, Town of Kearny
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Construction Official and Heyer and Gruel
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	Yes	Hudson County Engineer
Surveyors	Yes	Neglia Engineering

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Emergency manager	Yes	Office of Emergency Management Coordinator
Grant writers	Yes	Carol Lowy, Housing and Community Development Services
Resilience Officer	Yes	Police, Officer Rich Poplaski, Officer Ryan Brady, Officer Ellesse Ogando
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

9.3.4 Fiscal Capability

Table 9-5 summarizes financial resources available to Kearny.

Table 9-5. Fiscal Capabilities

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

9.3.5 Education and Outreach Capability

Table 9-6 summarizes the education and outreach resources available to Kearny.

Table 9-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Ronald Smits
Personnel skilled or trained in website development	Yes	Town contracts out, Police Department maintains their own
Hazard mitigation information available on your website	Yes	The Town provides preparation information for residents prior to an event and posts emergency alerts as they are issued.
Social media for hazard mitigation education and outreach	Yes	Town's website and Facebook page.

Outreach Resources	Available? (Yes/No)	Comment
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	The Town provides alerts and announcements on the municipal website, Swift911 Emergency Alert System, variable message boards, and social media outlets
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	The Town offers an online municipal newsletter where hazard-related information can be incorporated and used to communicate information to residents

9.3.6 Community Classifications

Table 9-7 summarizes classifications for community programs available to Kearny.

Table 9-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	3	September 7, 2010
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Sustainable Jersey	Yes	N/A	May 26, 2009
Other: Organizations with mitigation focus (advocacy group, non-government)	N/A	-	-

N/A = Not applicable

— = Unavailable

9.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 9-8 summarizes the adaptive capacity for each identified hazard of concern and the Town'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 9-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Strong
Geological Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

9.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 9-1 is responsible for maintaining this information.

9.4.1 NFIP Statistics

Table 9-9 summarizes the NFIP policy and claim statistics for Kearny.

Table 9-9. Kearny NFIP Summary of Policy and Claim Statistics

# Policies	**70**
# Claims (Losses)	**277**
Total Loss Payments	**$30,527,497.26**
# Repetitive Loss Properties (NFIP definition)	**12**
# Repetitive Loss Properties (FMA definition)	**3**
# Severe Repetitive Loss Properties (NFIP definition)	**0**
# Severe Repetitive Loss Properties (FMA definition)	**3**

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2024

9.4.2 Flood Vulnerability Summary

Table 9-10 provides a summary of the NFIP program in Kearny.

Table 9-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Rt. 7 (Belleville Turnpike) between Schuyler Ave and Viaduct. Passaic Ave at Johnston Ave. Harrison Ave in multiple areas. Fish house Rd. East of Schuyler Ave, streets.
Do you maintain a list of properties that have been damaged by flooding?	If reported to police department or Fire Department
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Businesses along Route 7/Belleville Turnpike
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Handled by Construction Department
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
NFIP Compliance	
What local department is responsible for floodplain management?	Construction Official, Town Engineer
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	No
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review and outreach.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If cost exceed 50% of the structures value
What are the barriers to running an effective NFIP program in the community, if any?	Cost
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	Unknown
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	Unknown

NFIP Topic	Comments
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 32
What is the date that your flood damage prevention ordinance was last amended?	Feb. 7, 2023
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets the minimum
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	No
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	Interested in joining

9.5 Growth/Development Trend is

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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 9-11 through Table 9-13.

Table 9-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2019				
Total Permits	1	7	8	16
Permits within SFHA	0	4	7	11
2020				
Total Permits	0	7	3	10
Permits within SFHA	0	0	1	1
2021				
Total Permits	1	7	4	12
Permits within SFHA	1	6	4	11
2022				
Total Permits	2	6	3	11
Permits within SFHA	0	1	2	3
2023				
Total Permits	3	5	5	13
Permits within SFHA	0	0	3	3

SFHA = Special Flood Hazard Area (1% flood event)

Table 9-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Russo	Residential	(5) buildings	60 Passaic Ave	AE	Complete
Alessi	Commercial	(5) buildings	590 Belleville Turnpike	AE	Complete
ACME	Residential	building	199 Tappan St	AE	Complete

** Only location-specific hazard zones or vulnerabilities identified.*

Table 9-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

9.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Kearny's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

9.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Town are shown in Figure 9-1 through Figure 9-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Kearny has significant exposure. The maps show the location of potential new development, where available.

Figure 9-1. Kearny Hazard Area Extent and Location Map 1

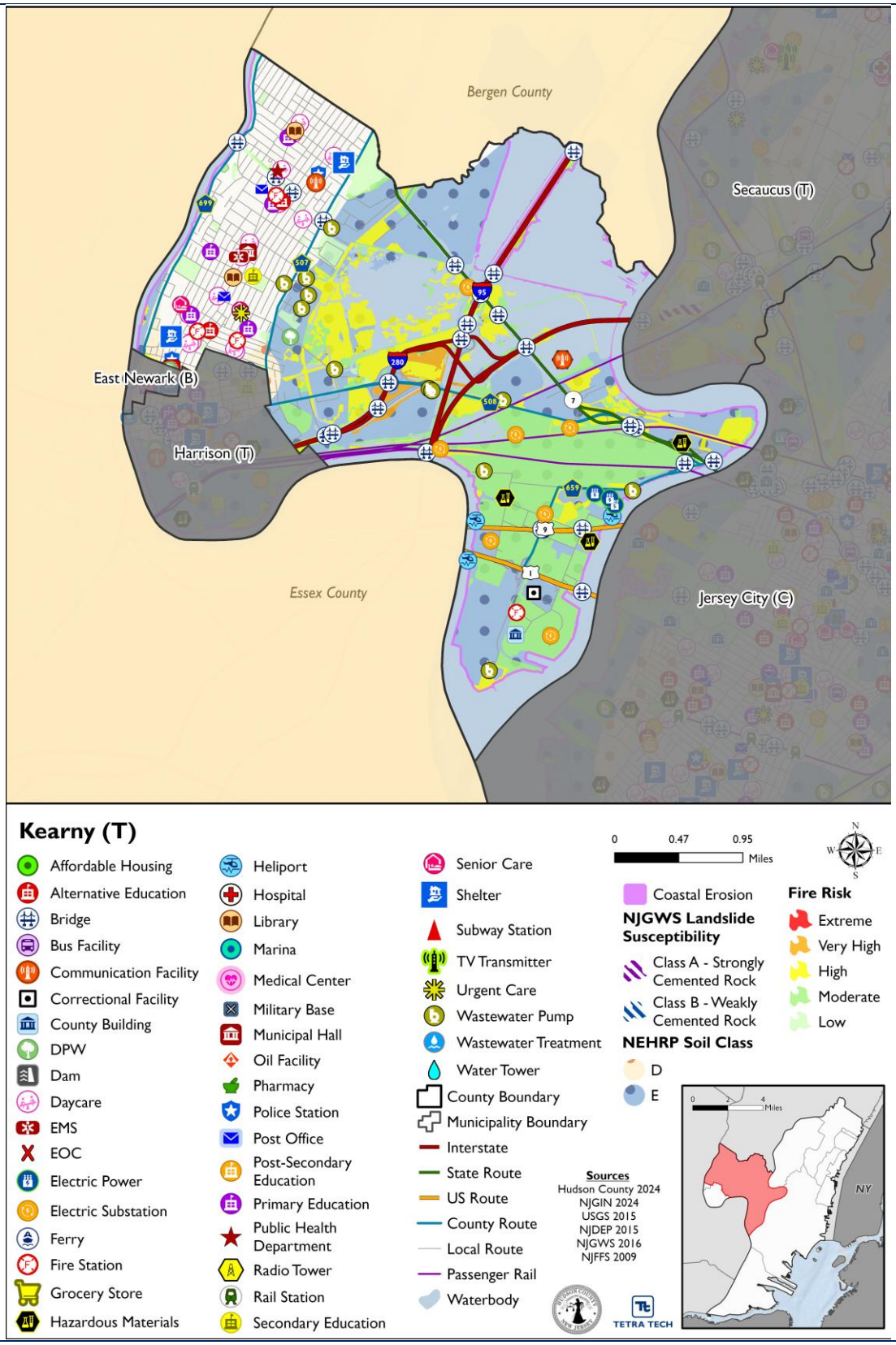


Figure 9-2. Kearny Hazard Area Extent and Location Map 2

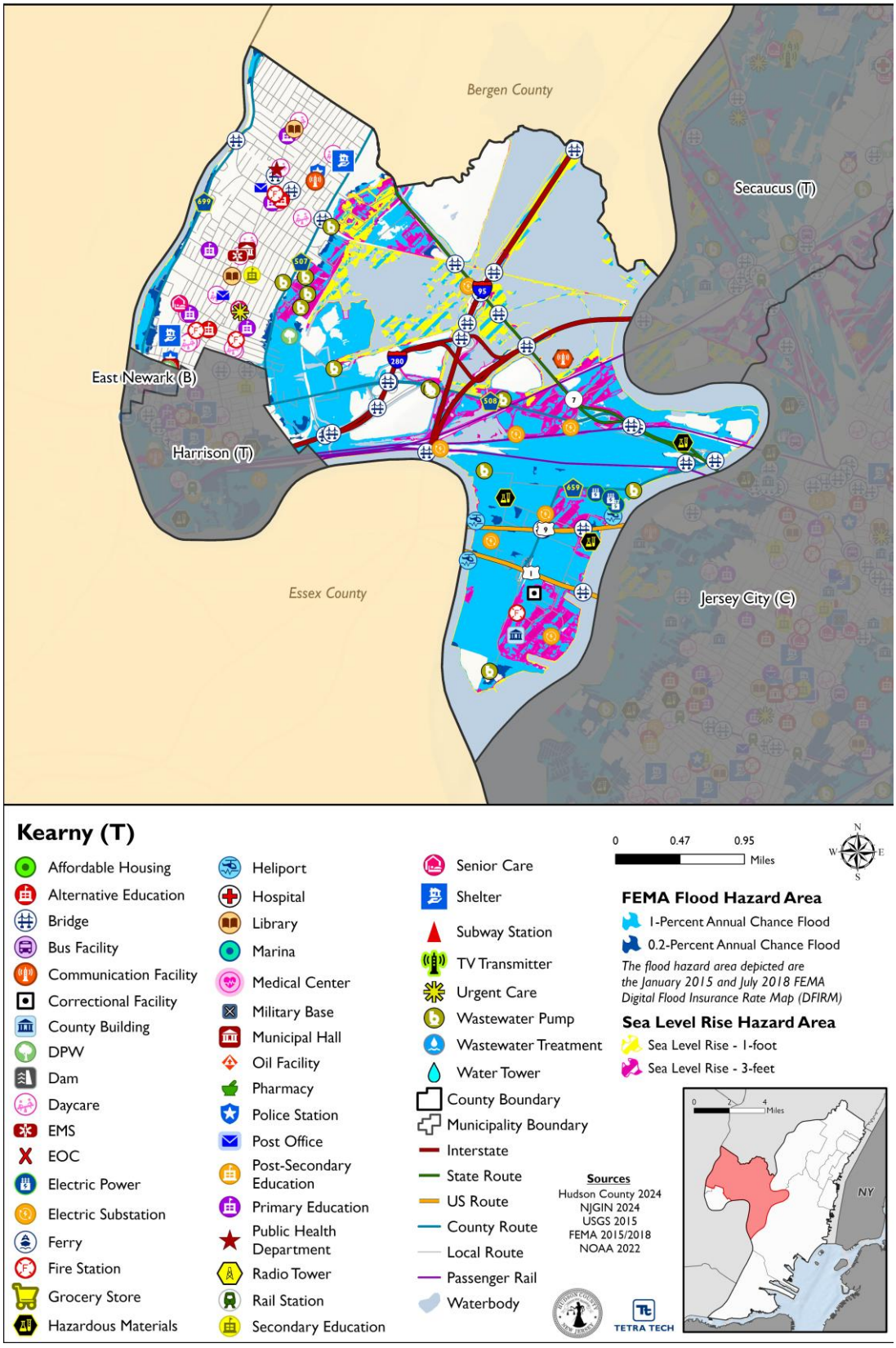
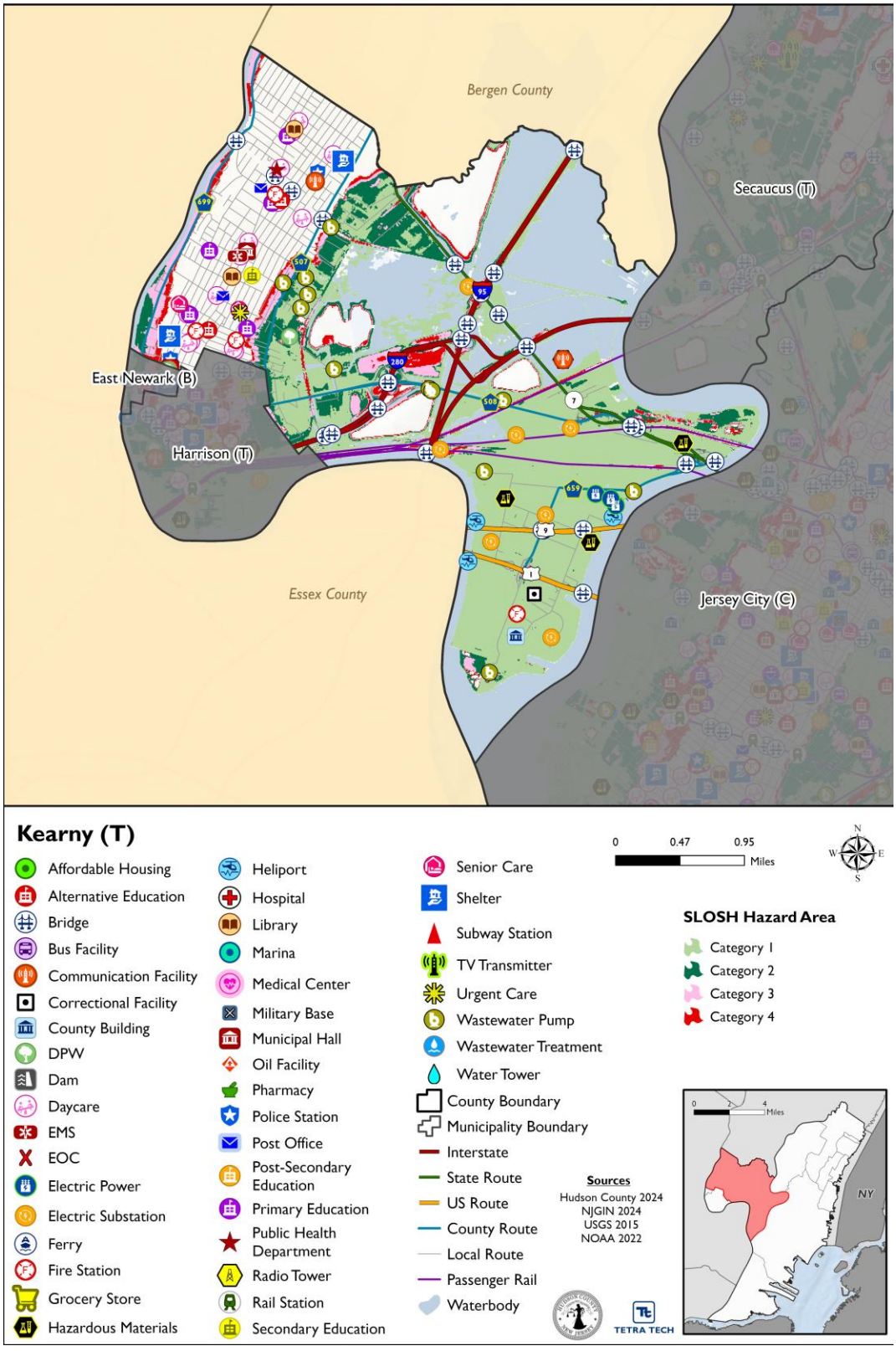


Figure 9-3. Kearny Hazard Area Extent and Location Map 3



9.6.2 Hazard Event History

The history of natural and non-natural hazard events in Kearny is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 9-14 provides details on loss and damage in Kearny during hazard events since the last hazard mitigation plan update.

Table 9-14. Hazard Event History in Kearny

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Kearny
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The Town did not experience any noted or documented damages or losses.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	Refer to County Health Dept. for number of positive cases and deaths in Kearny
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The Town did not experience any noted or documented damages or losses.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The Town did not experience any noted or documented damages or losses.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	The Town did not experience any noted or documented damages or losses.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	The Town did not experience any noted or documented damages or losses.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Kearny
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	The Town did not experience any noted or documented damages or losses.

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

9.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Kearny.

9.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. Kearny reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Town indicated the following:

- None Identified

Table 9-15 shows Kearny's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 9-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Low
Drought	Medium
Extreme Temperatures	Low
Flood	High
Geological Hazards	Low
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

9.6.3.2 Critical Facilities

Table 9-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Jersey City:

- None Identified

Table 9-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
(Unknown Owner) Storm Water Pump Station	Wastewater Pump	X	X
Abandoned Conr. Nwrk Br.	Bridge	X	X
Alden Leeds, Inc. Heliport	Heliport	X	X
BELLVILLE TPK (NJ RT 7)	Bridge	X	X
CONRAIL	Bridge	X	X
CR 659 CSX CONRAIL	Bridge	X	X
Daily News	Electric Substation	X	X
DPW Pump Station	Wastewater Pump	X	X
Generation	Electric Power	X	X
Hackensack & Passaic Riv	Bridge	X	X
HACKENSACK RIVER	Bridge	X	X
Helo Kearny Heliport	Heliport	X	X
Hudson County Department of Corrections	Correctional Facility	X	X
Hudson County EOC - Juneau Building	EOC	X	X
Hudson County USS Juneau Memorial Building	County Building	X	X
Kearny DPW	DPW	X	X
KEARNY FIRE DEPARTMENT STATION 4 - SOUTH KEARNY	Fire Station	X	X
KMUA - Harrison Ave Pump Station	Wastewater Pump	X	X
KMUA – Kearny Point Pump Station	Wastewater Pump	-	X
KMUA - Penn Ave Pump Station	Wastewater Pump	X	X
Kuehne Chemical Co. Inc.	Hazardous Materials	X	X
NEW YORK PUBLIC RADIO	Radio Tower	X	X
NJ 7 CR 659 RRs	Bridge	X	X
NJ 7 SB RAMP H NB	Bridge	X	X
NJ RTE 7 & NJ TPK U-TURN	Bridge	X	X
NJ TRANSIT & CONRAIL	Bridge	X	X
NJ TRANSIT & SERVICE RD	Bridge	X	X
NJ TRANSIT (Abandoned)	Bridge	X	X

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
NJ Transit MMC	Electric Substation	X	X
NJTransit Aband. Booton	Bridge	X	X
Owens-corning	Hazardous Materials	X	X
PASSAIC R NJ TPK CONRAIL	Bridge	X	X
PASSAIC RIV PCRR CRR CON	Bridge	X	X
PATH Kearny	Electric Substation	X	X
PSE&G - Kearny Helistop	Heliport	X	X
PSEG Kearny Generating Station	Electric Power	X	X
River Terminal	Electric Substation	X	X
ROUTE US 1&9T	Bridge	X	X
S&w Waste Inc.	Hazardous Materials	X	X
SAWMILL CREEK	Bridge	X	X
Third Street Sub.	Electric Substation	X	X
Turnpike Sub.	Electric Substation	X	X
USPO Kearny	Electric Substation	X	X
WMCA 570	Communication Facility	X	X
WNYC 820	Communication Facility	X	X

Source: Hudson County; HIFLD; NJGIN

9.6.4 Identified Issues

After review of Kearny's hazard event history, hazard rankings, hazard location, and current capabilities, Kearny identified the following vulnerabilities within the community:

- Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:
    - Determine where the damage occurred within the community and if the damaged structures are in an SFHA.
    - Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.
    - Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.
    - Require permits for floodplain development.

  The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- The area around the Dukes Street and the Dead Horse Creek watershed drainage area are flood prone.

- Extensive damage due to un-natural structural settling at the police and fire safety building.
- There are four critical facilities in the Town that do not have backup power. During a power outage, these facilities cannot provide essential and emergency services to the community and residents.
- The Kearny DPW facility is a critical facility and does not have backup power. During a power outage, the facility cannot function properly or provide essential services to the community.
- The tide gates along the Passaic River and Hackensack River are old and in need of replacement.
- The Town does not have a way of knowing when the pump station systems fail.
- Kearny Fire Department Station 4 - South Kearny, located at 2 John Miller Way, is a critical facility and identified as a lifeline. The building is located in the 1- and 0.2- percent flood hazard area. The building could be susceptible to flood damage, leading to a disruption in service during emergency events.

9.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

9.7.1 Past Mitigation Action Status

Table 9-17 indicates progress on the Town's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

9.7.2 Additional Mitigation Efforts

In addition to the completed mitigation actions from the previous HMP, Kearny identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

Table 9-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-KEARNY-001	Stormwater Pump Station at Dukes Street	Coastal Storm, Flood, Severe Weather	Town OEM, Town DPW, Town Engineering	**Problem:** The area around the Dukes Street and the Dead Horse Creek watershed drainage area are floodprone. **Solution:** Construct a stormwater pump station at Dukes Street. This will reduce flooding of the local built area as well as mitigate flooding in the Dead Horse Creek watershed drainage area.	1.In Progress 2. Project is currently in progress with approximately 70% of construction completed. The project is funded by the NJ IBank, with a total estimated cost between $12–14 million. At this time, construction is temporarily halted due to a geotechnical settlement issue at the pumping station. Once the issue is resolved, an additional 6–8 months of construction will be required to complete the project	1.Include 2.No Change 3. N/A
2020-KEARNY-002	Repair and Reconstruct Police and Fire Public Safety Building	All Natural Hazards	Engineering, Construction Code Official	**Problem:** Extensive damage due to un-natural structural settling. **Solution:** Unless adequate “repair in place” design can be devised, much of the building must be razed and rebuilt to facilitate proper structural repair.	1.No Progress 2. South Kearny Building – Miller Way- No Progress to date staff remain in trailers. Litigation with original contractor is still ongoing. Unclear whether the town will need to allocate additional funds or if funds will be recovered through the lawsuit. Follow up requested from Attorney Gregg Psater	1.Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-KEARNY-003	Generators for Critical Facilities	All Hazards	Town OEM and Engineering	**Problem:** There are four critical facilities in the Town that do not have backup power. During a power outage, these facilities cannot provide essential and emergency services to the community and residents. **Solution:** Purchase and install permanent generators at: South Kearny Police and Fire, Town Hall Annex, Fire Station 2 and 3, and Health Department.	1.In Progress 2. Some small temporary, portable generators were purchased for PD and Health Center, but no progress on installing standby emergency back up generators at any of the listed facilities. Still need emergency back up generators at all the listed facilities. Also need back up emergency generators at the Town's pumps stations- 2 sanitary and 4 stormwater pump stations	1.Include 2.No change 3. N/A
2020-KEARNY-004	Generator for Kearny DPW	All Hazards	Town Engineering and Kearny MUA	**Problem:** The Kearny DPW facility is a critical facility and does not have backup power. During a power outage, the facility cannot function properly or provide essential services to the community. **Solution:** Purchase and install a permanent generator at the Kearny DPW facility, located at 357 Bergen Avenue. This will allow the facility to fully operate during a power outage and provide essential services to the community and residents.	1.No Progress 2. This is still a need.	1.Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-KEARNY-005	Upgrade Tide Gates	Coastal Storm, Flood, Severe Weather	Town Engineering	**Problem:** The tide gates along the Passaic River and Hackensack River are old and in need of replacement. **Solution:** Upgrade three tide gates in the Town: South Kearny – Passaic River outfall at Jacobus, Hackensack River outfall, and south of 280 on the Passaic River (near railroad tracks/behind Walmart)	1.No Progress 2. -Reference to railroad tracks behind Walmart need to be removed as the Tide gates are on private property -NJSEA is attempting to have the property owner repair the tide gate	1. Include 2.No change 3. N/A
2020-KEARNY-006	Electric Alarm Systems at Pumping Stations	Coastal Storm, Flood, Severe Weather	Town Engineering and Kearny MUA	**Problem:** The Town does not have a way of knowing when the pump station systems fail. **Solution:** Purchase and install electric and alarm services for early detection systems at pumping stations.	1.In Progress 2. Still a need	1.Include 2.No change 3. N/A
2020-KEARNY-007	Repetitive Loss Properties	Coastal Storm, Flood, Severe Weather	Town Construction Code Official	**Problem:** There are 10 repetitive loss properties in the Town of Kearny. These 10 properties have been repetitively flooded as documented by paid NFIP claims. **Solution:** Conduct outreach to 10 floodprone property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property owner information and develop a FEMA grant application and BCA to obtain funding to implement mitigation measures.	1.No Progress 2. Town has advised to remove action	1. Discontinue 2.N/A 3. Town advised to remove action

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-KEARNY-008	Hudson County EOC - Juneau Building	Coastal Storm, Flood, Severe Weather	Hudson County OEM with support from the Town of Kearny and Kearny Point	**Problem:** Critical facility and lifeline USS Juneau Building which serves as the County Emergency Operations Center (South Hackensack Road in Kearny) is located in the floodplain and vulnerable to storm surge (e.g., impacted by storm surge during Hurricane Sandy). **Solution:** Hudson County to coordinate with the Town of Kearny and the private developer (Kearny Point). The current proposed solution is a public private partnership, obtain a US EDA grant, elevate the road and increase drainage capacity/address drainage along South Hackensack Road. To date, a $3 Million grant has been awarded by US EDA.	1.In Progress 2. N/A	1.Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-KEARNY-009	Kearny Fire Department Station 4 – South Kearny	Coastal Storm, Flood, Severe Weather	Town Engineer, Fire Chief	**Problem:** Kearny Fire Department Station 4 - South Kearny, located at 2 John Miller Way, is a critical facility and identified as a lifeline. The building is located in the 1% and 0.2% flood hazard area. The building could be susceptible to flood damage, leading to a disruption in service during emergency events. **Solution:** Conduct a study to determine if the building is elevated above the base flood elevation or has mitigation measures in place to protect from floods. If mitigation measures are not in place, conduct an evaluation of the building and property to determine which type of floodproofing is the best solution. This can include, but not limited to, applying a waterproofing sealant the walls of the building, installing watertight doors to protect mechanical rooms from flooding, elevating electrical equipment, and using portable floodwalls.	1.No Progress 2. N/A	1.Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-KEARNY-010	Critical facilities – wastewater pumps	Flood, Severe Weather	Town Construction Code Official	**Problem: T**here are five wastewater pumps located in the Town: Penn Ave Pump, Harrison Ave Pump, DPW Pump Station, DPW Pump Station, and DPW Pump Station, that are located in the 1% and 0.2% flood hazard area. The five facilities are critical facilities and identified as lifelines for the Town. The buildings could be susceptible to flood damage, leading to a disruption in service during emergency events. **Solution:** Provide outreach to the facility's owners/operators informing them that their building is located in the 1% and 0.2% flood hazard area and include mitigation options the facility might consider to protect against flood damages.	1.No Progress 2. Town has advised to remove action	1. Discontinue 2.N/A 3. Town advised to remove action

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-KEARNY-011	Critical Facilities - Electric Generating Stations	Flood, Severe Weather	Town Construction Code Official	**Problem:** There are three generating stations located in the Town: PSEG Kearny Generating Station (Hackensack Avenue), Generation (no address), and PSEG Kearny Generating (118 Hackensack Avenue). The three facilities are critical facilities and identified as lifelines for the Town. All three buildings are located in the 1% and 0.2% flood hazard area. The buildings could be susceptible to flood damage, leading to a disruption in service during emergency events. **Solution:** Provide outreach to the facility's owners/operators informing them that their building is located in the 1% and 0.2% flood hazard area and include mitigation options the facility might consider to protect against flood damages.	1.No Progress 2. Town has advised to remove action	1. Discontinue 2.N/A 3. Town advised to remove action

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-KEARNY-012	Critical Facilities – Electric Substations	Flood, Severe Weather	Town Construction Code Official	**Problem:** There are seven electric substations located in the Town: Third Street Sub, Daily News, River Terminal, Path Kearny, NJ Transit Mmc, Uspo Kearny, and Turnpike Sub. The seven facilities are critical facilities and identified as lifelines for the Town. All three buildings are located in the 1% and 0.2% flood hazard area. The buildings could be susceptible to flood damage, leading to a disruption in service during emergency events. **Solution:** Provide outreach to the facility's owners/operators informing them that their building is located in the 1% and 0.2% flood hazard area and include mitigation options the facility might consider to protect against flood damages.	1.No Progress 2. Town has advised to remove action	1. Discontinue 2.N/A 3. Town advised to remove action
2020-KEARNY-013	Critical Facility – Helo Kearny Heliport	Flood, Severe Weather	Town Construction Code Official	**Problem:** The Helo Kearny Heliport is located at 165 Western Road. It is a critical facility and identified as a lifeline for the Town. The facility is located in the 1% and 0.2% flood hazard area. The building could be susceptible to flood damage, leading to a disruption in service during emergency events. **Solution:** Provide outreach to the facility owner/operator informing them that the building is located in the 1% and 0.2% flood hazard area and include mitigation options the facility might consider to protect against flood damages.	1.No Progress 2. Town has advised to remove action	1. Discontinue 2.N/A 3. Town advised to remove action

9.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Kearny participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Kearny would like to pursue in the future to reduce the effects of hazards. The actions 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 Town priorities.

Table 9-18 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 9-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 9-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X	X			X	X			X	X
Drought	X	X			X	X			X	X
Extreme Temperatures	X	X			X	X			X	X
Flood	X	X			X	X			X	X
Geological Hazards	X	X			X	X			X	X
Severe Weather	X	X			X	X			X	X
Severe Winter Weather	X	X			X	X			X	X
Wildfire	X	X			X	X			X	X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 9-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-Kearny-001	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	**13**	High
2025-Kearny-002	Stormwater Pump Station at Dukes Street	1	1	1	1	1	0	1	0	1	1	1	1	1	0	**11**	High
2025-Kearny-003	Repair and Reconstruct Police and Fire Safety Building	1	1	1	0	1	0	0	0	1	1	1	1	1	0	**9**	Medium
2025-Kearny-004	Generators for Critical Facilities	1	1	1	1	1	0	0	1	1	1	1	1	1	0	**11**	High
2025-Kearny-005	Generator for Kearny DPW	1	1	1	1	1	0	0	1	1	1	1	1	1	0	**11**	High
2025-Kearny-006	Upgrade Tide Gates	1	1	1	1	0	0	1	0	1	1	1	1	0	0	**9**	Medium
2025-Kearny-007	Electric Alarm Systems at Pumping Stations	1	1	1	1	0	0	1	0	1	1	1	1	1	0	**10**	Medium
2025-Kearny-008	Kearny Fire Department Station 4 – South Kearny	1	1	1	0	1	0	0	0	1	1	1	1	1	0	**9**	Medium

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

Action 2025-Kearny-001. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	Public Works, Construction Code Enforcement
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
Description of the Solution:	The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 *Developing a Substantial Damage Management Plan* (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	3,6
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
Impact on Capabilities:	This action improves disaster recovery capabilities.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
Mitigation Category	Local Plans and Regulations
CRS Category	Emergency Services, Preventative Measures
Priority	High

Alternatives	Action	Evaluation
	No Action	-
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements

Action 2025-Kearny-002. Stormwater Pump Station at Dukes Street

Lead Agency:	Town OEM
Supporting Agencies:	Town DPW, Town Engineering
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	The area around the Dukes Street and the Dead Horse Creek watershed drainage area are flood prone.
Description of the Solution:	Construct a stormwater pump station at Dukes Street. This will reduce flooding of the local built area as well as mitigate flooding in the Dead Horse Creek watershed drainage area.
Estimated Cost:	High
Potential Funding Sources:	NJ Bank, Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	2,3
Benefits:	Reduce flooding and its impacts on surrounding area.
Impact on Socially Vulnerable Populations:	Reducing flood risk in the Dukes Street and Dead Horse Creek watershed area will protect socially vulnerable populations who may face greater challenges in recovering from flood-related damages and disruptions.
Impact on Future Development:	Improved flood management infrastructure will support safe and sustainable development in the area by reducing the risk of property damage and increasing investor confidence.
Impact on Critical Facilities/Lifelines:	The pump station will help maintain access to and functionality of nearby critical facilities and lifelines by preventing flood-related service interruptions.
Impact on Capabilities:	This project enhances the municipality's stormwater management capabilities by introducing mechanical flood control infrastructure that can respond more effectively to high-intensity rainfall events.
Climate Change Considerations:	The pump station is designed to address the increased frequency and intensity of storm events expected under future climate conditions, improving long-term resilience in a flood-prone watershed.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Structural Flood Control Projects, Property Protection
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Green Infrastructure	Does not handle large amounts of runoff
	Expanding or deepening existing drainage channels	Space constraints

Action 2025-Kearny-003. Repair and Reconstruct Police and Fire Safety Building

Lead Agency:	Engineering	
Supporting Agencies:	Construction Code Official	
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Extensive damage due to un-natural structural settling at the police and fire safety building.	
Description of the Solution:	Unless adequate “repair in place” design can be devised, much of the building must be razed and rebuilt to facilitate proper structural repair.	
Estimated Cost:	High	
Potential Funding Sources:	DHA Grants (UASI), Town Budget	
Implementation Timeline:	1-5 years	
Goals Met:	2,6	
Benefits:	Much needed South Kearny control and command center for Police and Fire	
Impact on Socially Vulnerable Populations:	Ensuring the structural integrity of the police and fire safety building helps maintain uninterrupted emergency response services, which are especially critical for socially vulnerable populations who may rely more heavily on public safety support.	
Impact on Future Development:	Repairing or rebuilding the facility enhances the safety and reliability of emergency services, supporting future development by ensuring that growing communities have access to dependable public safety infrastructure.	
Impact on Critical Facilities/Lifelines:	As a core public safety facility, the building is a critical lifeline; addressing structural issues is essential to preserving emergency response capabilities and protecting personnel and equipment during hazard events.	
Impact on Capabilities:	This action strengthens the municipality’s emergency response capabilities by ensuring that police and fire operations can continue safely and effectively from a structurally sound facility.	
Climate Change Considerations:	Future environmental stressors such as increased flooding, soil instability, or extreme weather may worsen structural vulnerabilities; incorporating resilient design into repairs or reconstruction will help safeguard the facility against long-term climate-related risks.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects, Property Protection	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Reinforce only the most damaged portions of the building	May not address underlying structural issues
	Relocate to temporary facility	Short-term relief

Action 2025-Kearny-004.Generators for Critical Facilities

Lead Agency:	Town OEM	
Supporting Agencies:	Engineering	
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	There are four critical facilities in the Town that do not have backup power. During a power outage, these facilities cannot provide essential and emergency services to the community and residents.	
Description of the Solution:	Purchase and install permanent generators at: South Kearny Police and Fire, Town Hall Annex, Pump Stations 2 Sanitary and 4 Stormwater, Fire Station 2 and 3, and Health Department.	
Estimated Cost:	Medium	
Potential Funding Sources:	FEMA HMGP	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6,7	
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:	This action results in protection of a critical facility that could support future development.	
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:	This action ensures continuity of operations to maintain capabilities.	
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Microgrid	Costly and difficult to implement.
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-Kearny-005.Generator for Kearny DPW

Lead Agency:	Town Engineering	
Supporting Agencies:	Kearny MUA	
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:		
Description of the Solution:	Purchase and install a permanent generator at the Kearny DPW facility, located at 357 Bergen Avenue. This will allow the facility to fully operate during a power outage and provide essential services to the community and residents.	
Estimated Cost:	Medium	
Potential Funding Sources:	FEMA HMGP	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6,7	
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:	This action results in protection of a critical facility that could support future development.	
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:	This action ensures continuity of operations to maintain capabilities.	
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Microgrid	Costly and difficult to implement.
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-Kearny-006.Upgrade Tide Gates

Lead Agency:	Town Engineering
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	The tide gates along the Passaic River and Hackensack River are old and in need of replacement.
Description of the Solution:	Upgrade three tide gates in the Town: South Kearny – Passaic River outfall at Jacobus, Hackensack River outfall, and south of 280 on the Passaic River (near railroad tracks/behind Walmart).
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP
Implementation Timeline:	1-5 years
Goals Met:	2
Benefits:	Protect the area from flooding.
Impact on Socially Vulnerable Populations:	Harden the tide gates will increase level of protection, reduce flood risk in adjacent low-lying areas, helping to protect socially vulnerable populations who may have limited resources to recover from flood-related damages and disruptions.
Impact on Future Development:	Improved flood protection infrastructure will support safe and resilient development along the riverfront by reducing the risk of tidal flooding and increasing investor confidence in the area.
Impact on Critical Facilities/Lifelines:	The upgraded tide gates will help safeguard nearby transportation corridors, utilities, and industrial facilities from tidal flooding, ensuring continued operation of critical lifelines during high-water events.
Impact on Capabilities:	This project enhances the municipality's flood management capabilities by modernizing aging infrastructure, improving the reliability and effectiveness of tidal flood control systems.
Climate Change Considerations:	The upgraded tide gates will be better equipped to handle rising sea levels and more frequent tidal surges expected under future climate conditions, increasing long-term resilience for the community.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Structural Flood Control Projects, Property Protection
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Relying on Temporary Flood Barriers	Labor intensive, not suitable long-term
Installing one centralized pump station	May not effectively manage tidal backflow at multiple outfall points

Action 2025-Kearny-007. Electric Alarm Systems at Pumping Stations

Lead Agency:	Town OEM	
Supporting Agencies:	Engineering	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The Town does not have a way of knowing when the pump station systems fail.	
Description of the Solution:	Purchase and install electric and alarm services for early detection systems at pumping stations.	
Estimated Cost:	Medium	
Potential Funding Sources:	FEMA HMGP	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6	
Benefits:	Eliminate potential flood situations	
Impact on Socially Vulnerable Populations:	Improved monitoring ensures faster response to pump failures, reducing flood risk for vulnerable populations who may be less able to recover from damage.	
Impact on Future Development:	Reliable pump station performance supports safe development by minimizing infrastructure failure and flood-related disruptions.	
Impact on Critical Facilities/Lifelines:	Early detection helps maintain continuous operation of essential services by preventing pump station outages that could impact critical infrastructure.	
Impact on Capabilities:	This action enhances the Town's operational readiness and response capabilities by enabling real-time system monitoring.	
Climate Change Considerations:	As extreme weather events become more frequent, early warning systems help manage increased stress on stormwater infrastructure, improving resilience.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects, Property Protection	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Manual inspections	Time consuming, labor intensive
	Relying on historical data to predict failures	May identify long-term issues but not unexpected failures in real time

Action 2025-Kearny-008. Kearny Fire Department Station 4 – South Kearny

Lead Agency:	Town Engineering	
Supporting Agencies:	Fire Chief	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	Kearny Fire Department Station 4 - South Kearny, located at 2 John Miller Way, is a critical facility and identified as a lifeline. The building is located in the 1- and 0.2- percent flood hazard area. The building could be susceptible to flood damage, leading to a disruption in service during emergency events.	
Description of the Solution:	Conduct a study to determine if the building is elevated above the base flood elevation or has mitigation measures in place to protect from floods. If mitigation measures are not in place, conduct an evaluation of the building and property to determine which type of floodproofing is the best solution. This can include, but not limited to, applying a waterproofing sealant the walls of the building, installing watertight doors to protect mechanical rooms from flooding, elevating electrical equipment, and using portable floodwalls.	
Estimated Cost:	Medium	
Potential Funding Sources:	FEMA HMGP, PDM, Municipal Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6,7	
Benefits:	Ensures continuity of operations of the fire station.	
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders and emergency managers to maintain critical services that socially vulnerable populations rely on.	
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.	
Impact on Critical Facilities/Lifelines:	This action will protect Station 4- South Kearny which is a critical facility, maintaining the critical services that it provides.	
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.	
Climate Change Considerations:	This action addresses anticipated increases in flooding frequency and severity through protection to the 1- and 0.2-percent annual chance flood level.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Emergency Services, Property Protection	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area
	Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.

10. TOWNSHIP OF NORTH BERGEN

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of North Bergen with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of North Bergen, describes who participated in the planning process, assesses North Bergen's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

10.1 Hazard Mitigation Planning Team

The Township of North Bergen identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Office of Emergency Management represented the community on the Hudson County HMP Planning Partnership and Steering Committee, and supported the local planning process 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.

Table 10-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 10-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: David Ricigliano, Office of Emergency Management Coordinator Address: 6100 Tonnelle Ave, North Bergen, NJ Phone Number: 201-330-7288 Email: dricigliano@northbergen.org	Name/Title: Bernard Mirandi, Engineer Address: 6100 Tonnelle Ave, North Bergen, NJ Phone Number: 201-641-0770 Email: bmirandi@boswellengineering.com
National Flood Insurance Program Floodplain Administrator	
Name/Title: Bernard Mirandi, Engineer Address: 6100 Tonnelle Ave, North Bergen, NJ Phone Number: 201-641-0770 Email: bmirandi@boswellengineering.com	
Additional Contributors	
Name/Title: David Ricigliano, Office of Emergency Management Coordinator Method of Participation: Provided input on hazard event history.	
Name/Title: Peter Hammer, Construction Official Method of Participation: Provided building permits and new development information.	
Name/Title: Bernard Mirandi, Engineer Method of Participation: Participated in the planning process.	
Name/Title: Paul Grygiel, Professional Planner Method of Participation: Participated in the planning process.	

Name/Title: Janet Castro, Administrator Method of Participation: Participated in the planning process.
Name/Title: Erin Barillas, Township Clerk Method of Participation: Participated in the planning process.
Name/Title: John Shaw, Public Works Superintendent Method of Participation: Participated in the planning process.
Name/Title: Dan Peschetti, OEM Staff Member Method of Participation: Participated in the planning process.

10.2 Community Profile

10.2.1 Brief History

The Township of North Bergen was officially incorporated on April 10, 1843, by an act of the New Jersey Legislature. Its origins trace back to February 10, 1843, when it separated from the northern portion of Bergen Township, a municipality established in 1661 by Dutch settlers that originally encompassed the areas now known as Hudson and Bergen Counties (Township of North Bergen 2024).

At the time of its incorporation, North Bergen covered a significantly larger area than it does today. Its southern boundary extended as far as present-day Journal Square. Over the following decades, portions of the township gradually separated to form new municipalities. The New Jersey Railroad initially served as a dividing line between townships until the formation of Hoboken in 1849, which also included what is now Weehawken.

Subsequent separations continued throughout the 19th century. In 1855, Hudson Town was formed, which is now known as Jersey City Heights. This was followed by the creation of Union Township in 1861, which later became West New York and West Hoboken, areas that now comprise downtown Union City. In 1864, Union Hill Township was established, corresponding to present-day uptown Union City. The final boundary change occurred in 1900 with the secession of Secaucus. These successive separations ultimately shaped the current geographic boundaries of North Bergen as they are known today (Township of North Bergen 2024).

10.2.2 Location

The Township is located in the northern portion of Hudson County, only four miles west of New York City on the majestic Palisades and Hudson River. The Town is located east of Hackensack Meadowlands Nature Preserve and shares its borders with Bergen County to the north, Town of Secaucus to the west, Jersey City to the south and Union City, West New York and Town of Guttenberg to the east.

10.2.3 Governing Body Format

The Township is located within the Meadowlands District, which is made up for 14 municipalities in Bergen and Hudson Counties. The District is 30.3 square miles and located approximately five miles west of New York City. The New Jersey Sports and Exposition Authority (NJSEA), an authority of the State of New Jersey, and serves as the regional planning

and zoning agency for the Meadowlands District. The NJSEA holds zoning jurisdiction over the portions of each municipality within its boundaries.

10.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for North Bergen was 63,361, a 4.2 percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 6.1 percent of the population is 5 years of age or younger, 16.6 percent is 65 years of age or older, 17.3 percent is non-English speaking, 11.6 percent is below the poverty threshold, and 9.7 percent is considered disabled.

10.2.5 ALICE in Hudson County

ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. While conditions have improved for some households, many continue to struggle, especially as wages fail to keep pace with the rising cost of household essentials (housing, child care, food, transportation, health care, and a basic smartphone plan). Households below the ALICE Threshold – ALICE households plus those in poverty – can't afford the essentials.

According to 2021 Point-in-Time-Data from ALICE, 24 percent of the 292,000 households in Hudson County are ALICE households (compared to the state average of 26 percent). The median household income in Hudson is $80,329, and the County sees a labor force participation rate of 69 percent. Hudson County faces low household income compared to the state average of $89,296 and while the County does carry a 3 percent higher labor participation rate compared to state numbers, 15 percent of Hudson households live in poverty.

10.3 Jurisdictional Capability Assessment and Integration

North Bergen performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs

- Adaptive capacity to withstand hazard events

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

10.3.1 Planning and Regulatory Capability and Integration

Table 10-2 summarizes the planning and regulatory tools that are available to North Bergen.

Table 10-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	NJAC 5.3 (2009)	State and Local	Building Department
How has or will this be integrated with the HMP and how does this reduce risk? The Township of North Bergen enforces the New Jersey State Codes as listed below. Building Code: • Uniform Construction Code – N.J.A.C. 5:23 • International Residential Code – N.J. 2021 EDITION • International Building Code – N.J. 2021 EDITION Plumbing: • National Standard Plumbing Code – 2021 EDITION • International Fuel Gas Code – 2021 EDITION • International Mechanical Code – 2021 EDITION • ICC/ANSI – 2017 (Accessibility) Electric: • National Electrical Code – 2020 EDITION Fire Prevention / Uniform Fire Code: • International Fire Code New Jersey Edition - 2021 Property Maintenance: International Property Maintenance Code – 2021 EDITION				
Zoning/Land Use Code	Yes	Title 1.1, Zoning Ordinance Ap. 6/99.	Local	Building Department
Zoning code helps identify vulnerable areas within the Township, allowing to be integrated with potential mitigation actions in natural hazard areas.				
Subdivision Code	Yes	69-84, Site Plan Review Requirements (12/6/84).	Local	Engineering Department
Site Plan Code	Yes	69-84, Site Plan Review Requirements (12/6/84).	Local and County	Engineering Department
Site plan code helps identify vulnerable areas within the Township, allowing to be integrated with potential mitigation actions in natural hazard areas.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Stormwater Management Code	Yes	1013-05 Stormwater Control (4/27/05).	Local	Engineering Department
This code allows to create better functionality for stormwater management to help overflow and flooding within the Township.				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Growth Management	Yes	Master Plan 4/99	Local	Township Administration
Growth management will support development trends within natural hazard areas and HMP mitigation actions.				
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Flood Damage Prevention Ordinance	Yes	1065-06 (6/14/06)	Federal, State, County and Local	Engineering Department
This ordinance will support addressing flood hazard risk identified in the HMP and flood mitigation actions.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive/Master Plan	Yes	Master Plan 4/99	Local	Building Department
How has or will this be integrated with the HMP and how does this reduce risk? The Master Plan was first adopted in 1987 and updated in 1994. A reexamination report was conducted in 2003 and 2009. The Housing Element and Fair Share Plan was added and adopted in 2009. The goals of the reexamination report are similar to those of the County's Hazard Mitigation Plan (ensure that any prospective development and/or redevelopment is responsive to North Bergen's environmental features). To achieve this goal, the Township's reviewing agencies undertake substantive reviews of all development applications to ensure that environmental impacts of proposed developments are scrutinized and addressed. During the next master plan update, the Township should review the County HMP and incorporate hazard areas into the plan.				
Capital Improvement Plan	Yes	Master Plan 4/99	Local	Township Administration
How has or will this be integrated with the HMP and how does this reduce risk?				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Stormwater Management Plan	Yes	Municipal Stormwater Management Plan, 2/2007	Local	Engineering Department
How has or will this be integrated with the HMP and how does this reduce risk? The goals of the plan include reducing flood damage including damage to life and property; minimize any increase in stormwater runoff from any new development; reducing soil erosion from any development or construction project; and maintain the integrity of stream channels for their biological functions as well as for drainage. The Township is working on incorporating several non-structural stormwater strategies into the zoning and site plan ordinances. These non-structural strategies will help reduce flooding and damage to life and property associated with flooding. To minimize stormwater runoff, the Residential Site Improvement Standards require a reduction in runoff during all rain events for residential developments. Commercial developments are required to follow NJAC 7:8 and 7:15. To reduce soil erosion, all development projects must obtain approval from the Bergen County Soil Conservation District if their area of disturbance is over 5,000 square feet. There are several maps that are part of the plan and include freshwater wetlands/water land uses, and floodplains.				
Stormwater Pollution Prevention Plan	Yes	Municipal Stormwater Pollution Prevention Plan, 05/21/2020	Local	Engineering Department
This plan will support pollution prevention within stormwaters, helping reduce flood risk and secondary issues that may come from flood such as polluted water.				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other: Shoreline Management Plan	Yes	Township of North Bergen Shoreline Management Plan	State, Local	Building Department
This plan supports shoreline management and integrate potential hazard risk and mitigation actions to address any shoreline issues.				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Emergency Response Plan	Local	Community Affairs and Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? The OEM has detailed information covering preparedness, response, mitigation and recovery from a disaster that may occur within the Township. The North Bergen Township Emergency Operations Plan is approved by the New Jersey State OEM as of April 2025 and focuses on the following areas: 01. Alerting and Warning 02. Fire and Rescue activities 03. Law Enforcement activities 04. Public Health awareness 05. Emergency Medical Services 06. Evacuation procedures 07. Shelter Reception and Care 08. Social Services 09. Resource Management 10. Coordination with the media 12. Department of Public Works activities 13. Emergency Operations Center coordination 14. Damage Assessments of public infrastructure and buildings 15. Handling of Hazardous Materials 16. Terrorism Incidents 17. Radiological Protection 18. Civil Unrest 19. Cyber Incident 20. Disaster Recovery 21. Pandemic				
Continuity of Operations Plan	Yes	EOP	Local	OEM
This is addressed in the Township's EOP.				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Public Health Plan	Yes	EOP	Local	OEM
This is addressed in the Township's EOP as it includes public health as part of the emergency operations for the Township.				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

10.3.2 Development and Permitting Capability

Table 10-3 summarizes the capabilities of North Bergen to oversee and track development.

Table 10-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	Yes	The Township issues building permits through the Building Department. It should be noted that part of the Township makes up NJSEA. For development within NJSEA boundaries, any proposed development needs to be approved first by NJSEA then the Township.
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	The Township currently does not have the ability to track permits by hazard area.
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	Yes	The Township has a buildable lands inventory. This is done through the master plan and the administration department
Describe the level of buildout in your jurisdiction.	N/A	The Township has a buildable lands inventory. This is done through the master plan and the administration department

10.3.3 Administrative and Technical Capability

Table 10-4 summarizes potential staff and personnel resources available to North Bergen and their current responsibilities that contribute to hazard mitigation.

Table 10-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	Planning Board
Zoning Board of Adjustment	Yes	Board of Adjustment
Planning Department	No	Planning responsibilities are handled by Jill Hartman (L & C Design Consultants, PA)
Mitigation Planning Committee	Yes	Local Emergency Planning Committee

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Environmental Board/Commission	Yes	The Township of North Bergen Green Team is derived of township officials, DPW, Sanitation, Health, Police, and schools. The Green Team conducts education, actions, and efforts to address energy and sustainability.
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	Public Works is responsible for street sweeping, salting, pothole repair, and sewerage and stormwater system maintenance.
Construction/Building/Code Enforcement Department	Yes	Building/Code Enforcement/Zoning
Emergency Management/Public Safety Department	Yes	The Department of Public Safety is responsible for police protection. The department is also responsible for the overall planning and coordination of programs related to the protection of the public, including, but not limited to, various educational programs and administration of grants relating to law enforcement. The North Bergen Office of Emergency Management focuses on the protection of life and property for all residents, businesses, visitors and the traveling public. OEM provides protection through the latest body of knowledge and current Emergency Management practices as set forth in federal, state, and county regulations. OEM personnel provide protection through study, planning and application of all phases of Emergency Management, while concentrating on mitigation, preparedness, response and recovery. OEM fosters the "TEAM" approach through education, coaching and partnering with each member. Members include municipal officials, the Emergency Management Council, the Local Emergency Planning Committee, emergency services and all municipal departments as outlined in the Townships Emergency Operations Plan. OEM will provide direction and obtain resources to members of the TEAM in events such as natural and technological disasters. OEM will provide coordination and assistance to police, fire, rescue, emergency medical and municipal government.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	General maintenance of roads, trees, catch basins, etc. to help reduce storm impacts and damages. The Township retrofits all existing inlets with NJDEP approved curb pieces to help limit debris in the stormwater system and prevent blockages.
Mutual aid agreements	Yes	Surrounding municipalities, Hudson County, UASI
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	-	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Boswell Engineering

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Engineers or professionals trained in building or infrastructure construction practices	Yes	Boswell Engineering
Planners or engineers with an understanding of natural hazards	Yes	Boswell Engineering
Staff with expertise or training in benefit/cost analysis	Yes	Township of North Bergen, CFO, Contract support
Professionals trained in conducting damage assessments	Yes	Contract support
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Boswell Engineering
Staff that work with socially vulnerable populations or underserved communities	Yes	Karen Pianese
Environmental scientists familiar with natural hazards	Yes	Boswell Engineering
Surveyors	Yes	Boswell Engineering
Emergency manager	Yes	David Ricigliano
Grant writers	Yes	Millennium Strategies
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	-	-

10.3.4 Fiscal Capability

Table 10-5 summarizes financial resources available to North Bergen.

Table 10-5. Fiscal Capabilities

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

10.3.5 Education and Outreach Capability

Table 10-6 summarizes the education and outreach resources available to North Bergen.

Table 10-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Full time staff member
Personnel skilled or trained in website development	Yes	Township staff and contractors
Hazard mitigation information available on your website	Yes	Located on the OEM section of the Township website. Information includes hurricane warnings online, develop safety kits, etc.
Social media for hazard mitigation education and outreach	Yes	The Township uses Facebook and Twitter
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Township Office of Emergency Management
Warning systems for hazard events	Yes	Everbridge, reverse 911, the police department uses digital message boards, County has air horns that are used during emergencies as well. The Township is looking into a Nixle-type program for traffic conditions. They will use this program to issue traffic warnings during flood events, road repairs, and construction.
Natural disaster/safety programs in place for schools	Yes	Township Emergency Operations Plan, School safety plans
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	Hispanic Affairs Community Service Program
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	North Bergen (NB) Connect Notification System which enables the Township of North Bergen to provide critical information quickly in a variety of situations, such as severe weather, unexpected road closures, missing persons, and evacuation of buildings or neighborhoods.

10.3.6 Community Classifications

Table 10-7 summarizes classifications for community programs available to North Bergen.

Table 10-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	IBC	2015
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Sustainable Jersey	Yes	Bronze	9/12/2023
Other: Organizations with mitigation focus (advocacy group, non-government)	-	-	-

N/A = Not applicable; — = Unavailable

10.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 10-8 summarizes the adaptive capacity for each identified hazard of concern and the Township'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 10-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Strong
Geological Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

10.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 10-1 is responsible for maintaining this information.

10.4.1 NFIP Statistics

Table 10-9 summarizes the NFIP policy and claim statistics for North Bergen.

10.4.2 Flood Vulnerability Summary

Table 10-10 provides a summary of the NFIP program in North Bergen.

Table 10-9. North Bergen NFIP Summary of Policy and Claim Statistics

# Policies	**411**
# Claims (Losses)	**146**
Total Loss Payments	**$5,488,320.98**
# Repetitive Loss Properties (NFIP definition)	**15**
# Repetitive Loss Properties (FMA definition)	**0**
# Severe Repetitive Loss Properties (NFIP definition)	**5**
# Severe Repetitive Loss Properties (FMA Definition)	**5**

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2024

Table 10-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Per Municipal Stormwater Management Plan: Dell Avenue between 40th and 49th Streets, 83rd Street between Tonnelle and West Side Avenues, 91st Street (West of Tonnelle Avenue), Railroad Avenue along the border between North Bergen and Fairview, Roe Harbor condominium at 8000 River Road.
Do you maintain a list of properties that have been damaged by flooding?	There is currently no formal list of properties damaged by flooding. Multiple properties in the municipality were damaged during Hurricane Ida, including but not limited to: • 8509 Liberty Ave. • 8600 Tonnelle Ave. The township will maintain a list of damaged properties going forward if required to by the county.
Do you maintain a list of property owners interested in flood mitigation?	There is no list for this item. The Township will maintain a list of property owners going forward if required to by the County.
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	This quantity is unknown. See above response.
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Determinations are made by Inspecting the damage on the site, followed by a construction estimate.

NFIP Topic	Comments
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	There is no list for this item. The Township will maintain a list going forward if required to by the County.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	There is no list for this item. The Township will maintain a list going forward if required to by the County.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
NFIP Compliance	
What local department is responsible for floodplain management?	The Engineering Department is responsible. North Bergen currently hires a consultant, Boswell Engineering , as the Township Engineer.
Are any certified floodplain managers on staff in your jurisdiction?	Yes, certified floodplain managers are available via the Township's Engineering consultant.
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No assistance is currently needed.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	The Township's engineering consultant is able to provide all required NFIP services.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Our process consists of the estimated cost, and review of the extent and nature of proposed improvements.
What are the barriers to running an effective NFIP program in the community, if any?	None
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	Unable to locate the date of last CAV or CAC.
What is the local law number or municipal code of your flood damage prevention ordinance?	Ordinance 1065-06
What is the date that your flood damage prevention ordinance was last amended?	June 14,2006
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The floodplain management program meets the minimum requirements.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Yes, the Township has municipal stormwater management plans and ordinances that are considered by the zoning and planning boards.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	The community is considering joining the CRS program.

10.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 10-11 through Table 10-13.

Table 10-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2019				
Total Permits	2	10	6	18
Permits within SFHA	0	2	1	3
2020				
Total Permits	0	11	5	16
Permits within SFHA	0	0	0	0
2021				
Total Permits	5	9	2	16
Permits within SFHA	0	0	0	0
2022				
Total Permits	3	4	3	10
Permits within SFHA	0	0	1	1
2023				
Total Permits	0	10	3	13
Permits within SFHA	0	0	2	2

SFHA = Special Flood Hazard Area (1% flood event)

Table 10-12. Recent Major Development and Infrastructure from 2017 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
No recent major development and infrastructure identified.					

** Only location-specific hazard zones or vulnerabilities identified.*

Table 10-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
7711 15 River Rd Asso.	Residential	157	7711 River Rd		Bd./County Approval
77 RR LLC	Mix	-	7701 River Rd		Bd. Approved
Riverview Development LLC.	Residential	300+	8200 River Rd		Bd. Approved

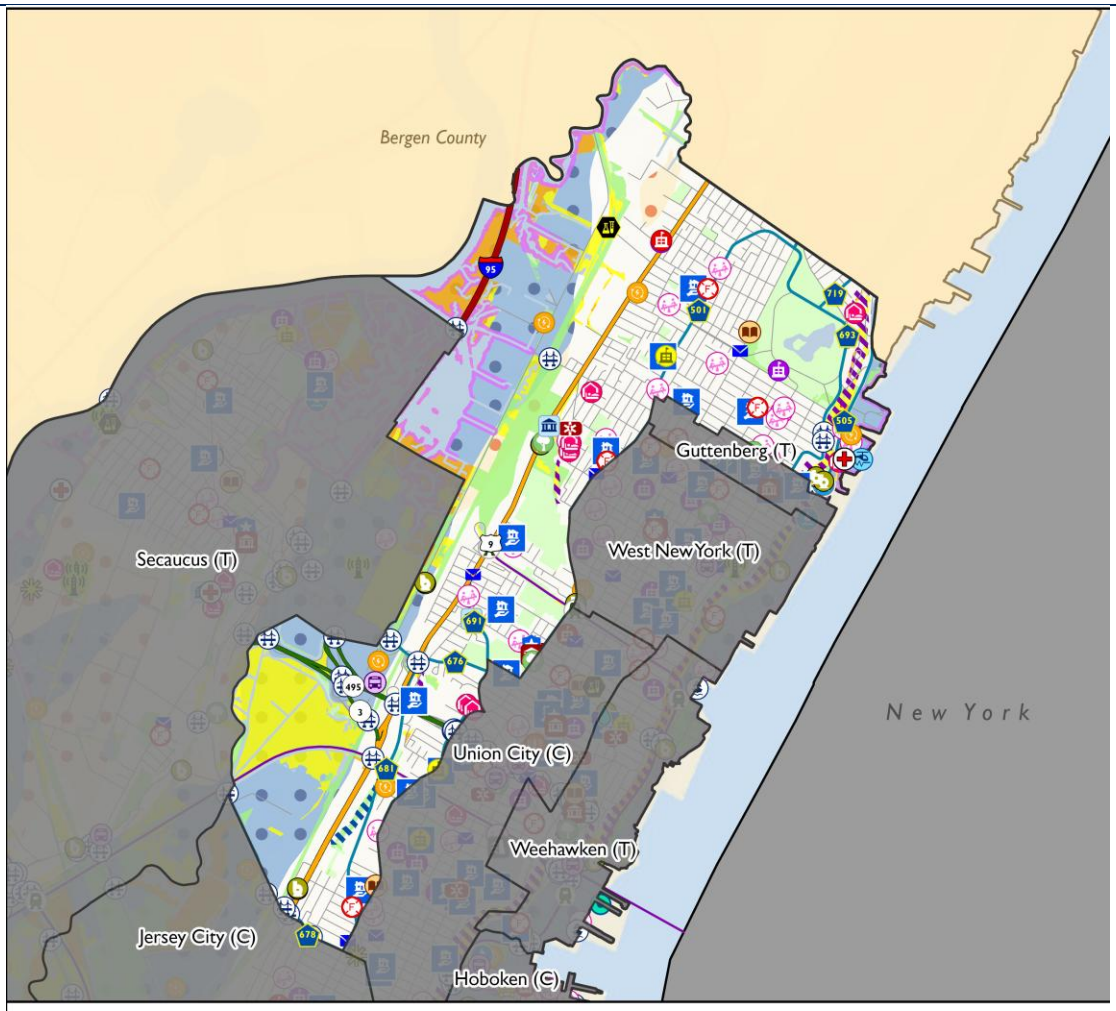
10.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of North Bergen's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

10.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 10-1 through Figure 10-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which North Bergen has significant exposure. The maps show the location of potential new development, where available.

Figure 10-1. North Bergen Hazard Area Extent and Location Map 1



North Bergen (T)

- Affordable Housing
- Alternative Education
- Bridge
- Bus Facility
- Communication Facility
- Correctional Facility
- County Building
- DPW
- Dam
- Daycare
- EMS
- EOC
- Electric Power
- Electric Substation
- Ferry
- Fire Station
- Grocery Store
- Hazardous Materials
- Heliport
- Hospital
- Library
- Marina
- Medical Center
- Military Base
- Municipal Hall
- Oil Facility
- Pharmacy
- Police Station
- Post Office
- Post-Secondary Education
- Primary Education
- Public Health Department
- Radio Tower
- Rail Station
- Secondary Education
- Senior Care
- Shelter
- Subway Station
- TV Transmitter
- Urgent Care
- Wastewater Pump
- Wastewater Treatment
- Water Tower
- County Boundary
- Municipality Boundary
- Interstate
- State Route
- US Route
- County Route
- Local Route
- Passenger Rail
- Waterbody

0 0.4 0.8 Miles

N W E S

- Coastal Erosion

NJGWS Landslide Susceptibility

- Class A - Strongly Cemented Rock
- Class B - Weakly Cemented Rock

NEHRP Soil Class

- D
- E

Fire Risk

- Extreme
- Very High
- High
- Moderate
- Low

Sources
Hudson County 2024
NJGIN 2024
USGS 2015
NJDEP 2015
NJGWS 2016
NJFFS 2009

0 2 4 Miles

NY

TETRA TECH

Figure 10-2. North Bergen Hazard Area Extent and Location Map 2

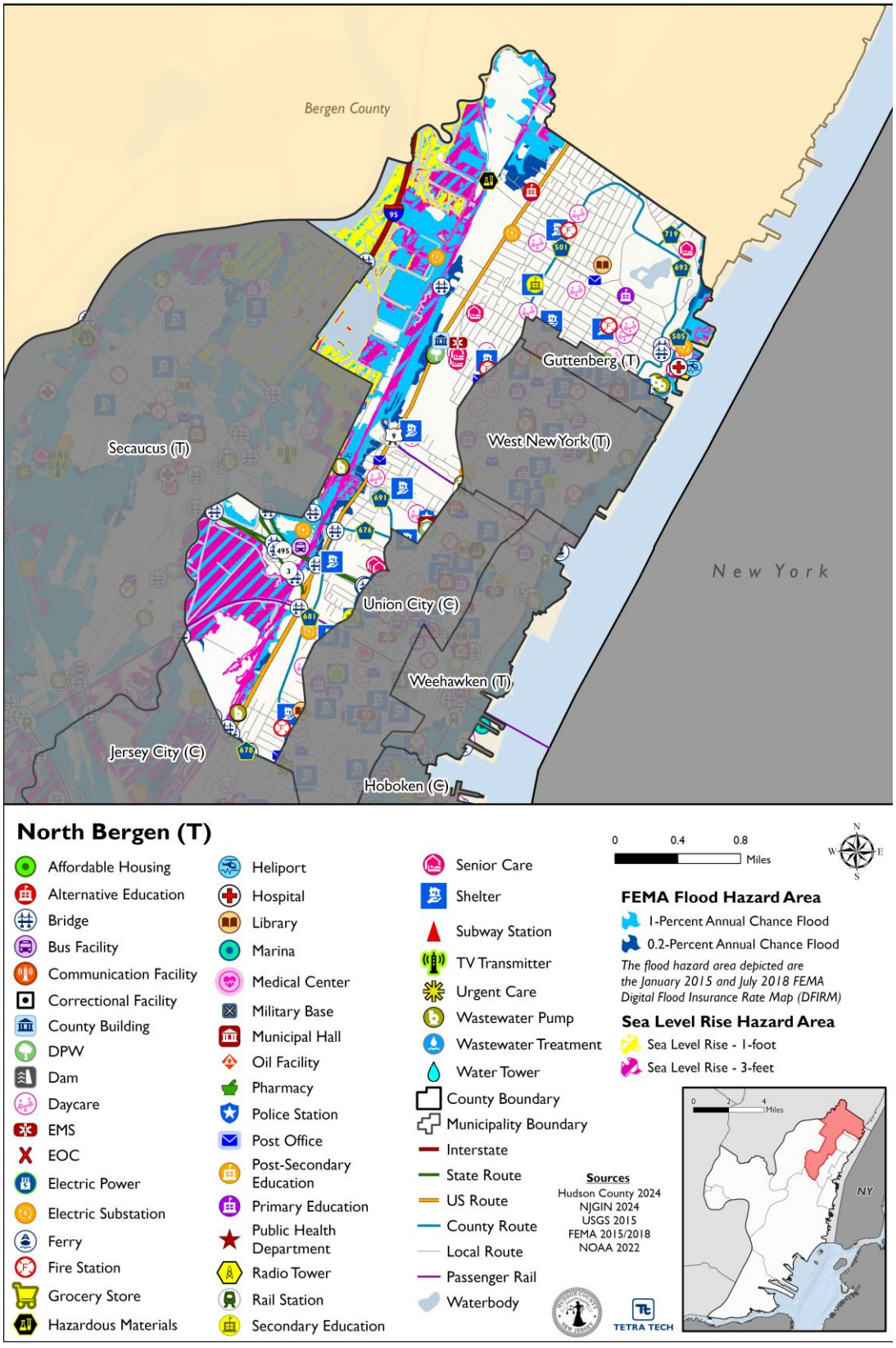
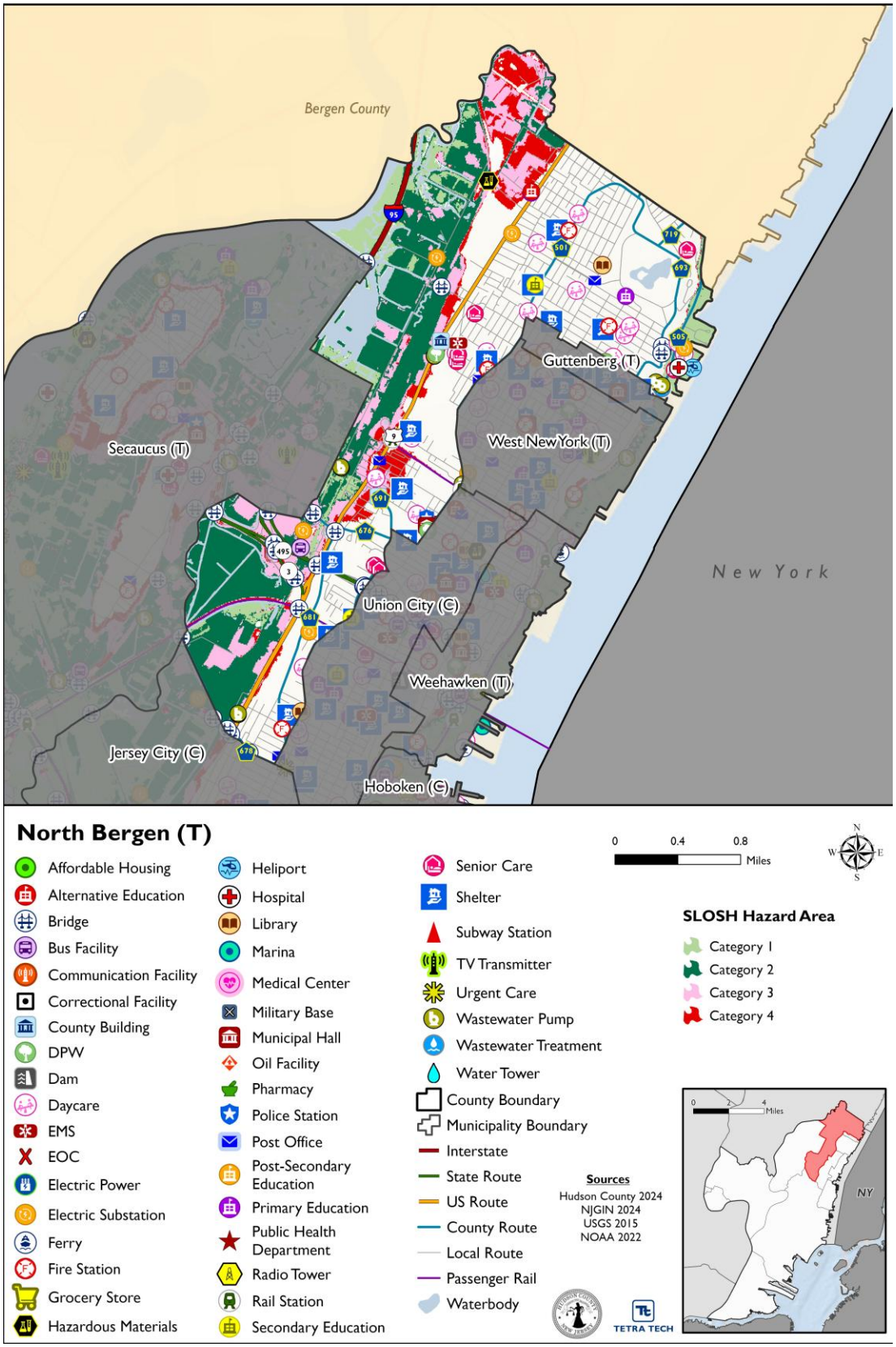


Figure 10-3. North Bergen Hazard Area Extent and Location Map 3



10.6.2 Hazard Event History

The history of natural and non-natural hazard events in North Bergen is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 10-14 provides details on loss and damage in North Bergen during hazard events since the last hazard mitigation plan update.

Table 10-14. Hazard Event History in North Bergen

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in North Bergen
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	None identified.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	None identified.
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	None identified.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	None identified.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	None identified.
November 15, 2020	Heavy Rains and Tornado	No	Buildings damaged, fences and trees flattened.	None identified.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in North Bergen
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours.This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	None identified.
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	None identified.
February 24, 2022	Winter Storm	No	Snow and winds forecast required a township delayed opening.	Delayed opening for township and schools, downed trees and power lines.
November 11, 2022	Remnants of Hurricane Nicole	No	Heavy winds and rain.	Localized flooding.
December 23, 2022	Forecast Heavy Rains/ Flooding	No	Storm prompted the Hackensack/PGH hospital to activate command center.	EOC activated to address event, localized flood and power outage.
April 30,2023	Heavy Rains and Winds	No	Storm caused an uptown power outage.	Power outage.
June 7, 2023	Canadian Wildfires	No	Poor air quality.	None identified.
September 29,2023	Heavy Rains	No	Numerous roads flooded and closes, motorists stranded and rescued.	Numerous roads flooded and closes, motorists stranded and rescued.
December 13, 2023	Landslide	No	Rock collapse on the Palisades requiring evacuations.	Evacuations.
January 9, 2024	Heavy Rains	No	Numerous road closures, trees and wires down, flooding.	Numerous road closures, trees and wires down, flooding.
March 23, 2024	Havy Rains	No	Roadways flooded and closed; motorists stranded.	Roadways flooded and closed; motorists stranded.
April 3, 2024	Heavy Rain and Winds	No	Multiple trees and wires down, building damage.	Multiple trees and wires down, building damage.
April 5, 2024	Earthquake	No	Tremors felt in the tri-state area during a 4.7 earthquake event in New Jersey.	No damages reported.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

10.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for North Bergen.

10.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. North Bergen reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the following:

- Geological hazards changed from low to medium. The Town indicated that there have been a few rockslides along the Palisades Cliffs down towards properties fronting River Rd.

Table 10-15 shows North Bergen's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 10-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Low
Drought	Medium
Extreme Temperatures	Low
Flood	High
Geological Hazards	Medium
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

10.6.3.2 Critical Facilities

Table 10-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in North Bergen:

- None Identified

Table 10-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
8Th Street Ps-PS02	Wastewater Pump	X	X
61ST St Ps- PS03 (Controls, Pumps, Wet Well)	Wastewater Pump	-	X
APPLEVIEW EARLY LEARNING CTR	Daycare	X	X
Central Ps-PS01	Wastewater Pump	X	X
Conrail Light Rail	Bridge	-	X
CSX RAIL	Bridge	X	X
HMH PALISADES CHILDCARE CENTER	Daycare	X	X
Homestead Sub.	Electric Substation	X	X
Meter (Central Ps)-PS01	Wastewater Pump	X	X
NJ TRANSIT PARK & RIDE	Bus Facility	X	X
North Bergen Sub.	Electric Substation	X	X
NORTHERN SEC. & RAMP A	Bridge	X	X
Palisades Medical Center	Hospital	X	X
Palisades Medical Center Heliport	Heliport	X	X
PAUNPECK CREEK	Bridge	X	X
River Road Sub.	Electric Substation	X	X
The Harborage at Pallisades	Senior Care	X	X
Tonnelle Ave Station	Rail Station	-	X
W.r. Grace & Co. Conn. - Grace Construct	Hazardous Materials	X	X
Woodcliff P.S (River Rd)-PS01W	Wastewater Pump	X	X
Woodcliff Sewage Treatment Plant	Wastewater Treatment	X	X

Source: Hudson County; HIFLD; NJGIN

10.6.4 Identified Issues

After review of North Bergen's hazard event history, hazard rankings, hazard location, and current capabilities, North Bergen identified the following vulnerabilities within the community:

- Mazzoni Place and lower section of the High Tech High School floods during rain/storm events.
- West 91st Street constantly floods during rain and storm events.
- Power outages at critical facilities owned by the Township Board of Education (BOE).
- Flooding during rain/storm events coupled with tide cycle cause flooding along West Side Ave to 91st Street / Fairview Ave and Railroad Ave.
- Supplying backup power to critical structure, Health Dept. located at 1116 43rd street.
- Facility has insufficient generator capacity to remain fully functional during an emergency.

- Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:
    - Determine where the damage occurred within the community and if the damaged structures are in an SFHA.
    - Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.
    - Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.
    - Require permits for floodplain development.

  The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.

* This issue was identified as a specific area of concern based on resident response to the Hudson County Hazard Mitigation Citizen survey.

10.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

10.7.1 Past Mitigation Action Status

Table 10-17 indicates progress on the Township's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

10.7.2 Additional Mitigation Efforts

In addition to the completed mitigation actions from the previous HMP, North Bergen identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

Table 10-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-NORTH BERGEN-001	Flood mitigation for Mazzoni Place / Flood Proof High Tech High School	Coastal Storm, Severe Weather, Flood Coastal Storm, Severe Weather, Flood	North Bergen Engineering with support from Hudson County Engineering	**Problem:** Mazzoni Place and Lower section of the High Tech High School Floods during rain/storm events. **Solution:** Study was complete and result show that flood proofing the Mazzoni Place near lower section of High School will eliminate flooding in the area.	1. In Progress 2. -	1. Include 2.No changes needed 3. N/A
2020-NORTH BERGEN-002	Proposed stormwater diversion along culvert south of 91st Street	Coastal Storm, Severe Weather, Flood	North Bergen Engineering with support from Hudson County Engineering	**Problem:** West 91st Street constantly floods during rain and storm events. **Solution:** Upsize approximately 1600 feet of stormwater piping to 91st Street.	1. In Progress 2. Under contract and expected to be constructed by the end of 2025	1. Include 2. Change in scope to New 36" Line – coming down from 84th street from New Kirk and From Tonnelle to new CSO tank. 3. N/A
2020-NORTH BERGEN-003	Pump station and tide gate along northwestern municipal quadrant / River Road mitigation	Coastal Storm, Severe Weather, Flood	North Bergen Engineering with support from Hudson County Engineering	**Problem:** Flooding during Rain/storm events coupled with tide cycle cause flooding along West Side Ave to 91st Street / Fairview Ave and Railroad Ave. **Solution:** To mitigate flooding hazards caused by rain/storm events along the north western quadrant of the municipality. Install a pump station along West Side Avenue incorporating backflow preventers. Tide gates installed at Fairview Ave. / Railroad Ave. intersection and dredging of Bellman's Creek to prevent surcharge upstream between 91st Street and Railroad Ave. to reduce flooding in the area.	1. In Progress 2. Belman's Creek Dredging in environmental planning phase. Replacement of culvert on 91st street under construction currently, expected to be finished before the end of 2025	1. Include 2. Include that the action is in environmental planning phase. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-NORTH BERGEN-004	Backup Power for North Bergen BOE Facilities	Coastal Storm, Severe Weather, Severe Winter Weather	North Bergen BOE	**Problem:** Power outages at critical facilities owned by the Township Board of Education **Solution:** Install a stand- alone natural gas generator with automatic transfer switch to provide emergency power for the following North Bergen Board of Education-owned critical facilities, as identified in the HCSRR: • North Bergen High School – Main shelter location & medical Point of Distribution (POD) • Lincoln School - Midtown shelter location & medical Point of Distribution (POD) Kennedy School - Downtown shelter location	1. In Progress 2. North Bergen High School Generated – Complete Lincoln School and Kennedy School not started, awaiting funding source	1. Include 2. Include updated progress in solution statement. 3. N/A
2020-NORTH BERGEN-005	North Bergen Health Dept. Backup Power	Coastal Storm, Severe Weather, Severe Winter Weather	North Bergen DPW	**Problem:** Supplying backup power to critical structure, Health Dept. located at 1116 43rd street. **Solution:** Install stand-alone natural gas generator and automatic transfer switch to provide emergency power for vital records, clinic and medical point of distribution at 1116 43rd Street in North Bergen.	1. No Progress 2. Awaiting funding source	1. Include 2. No Changes 3. N/A
2020-NORTH BERGEN-006	Retrofit DPW Tonnelle & add two generators	Coastal Storm, Severe Weather, Severe Winter Weather	North Bergen DPW	**Problem:** Facility has insufficient generator capacity to remain fully functional during an emergency. **Solution:** Adding generator capacity would be supplied to maintain the DPW, the Repair shop and the Police sub-station. The generator would be built at a height above flood stage. This facility has been identified as a critical facility in the risk assessment of this plan.	1. No Progress 2. Awaiting funding source	1. Include 2. No Changes 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-NORTH BERGEN-007	Mitigating floodprone properties	Coastal Storm, Flood, Severe Weather	Township Floodplain Administrator	**Problem:** There are 14 repetitive loss properties in the Township of North Bergen. These 14 properties have been repetitively flooded as documented by paid NFIP claims. **Solution:** Conduct outreach to 14 floodprone property owners and provide information on mitigation alternatives.	1. Ongoing 2. -	1.Discontinue 2.N/A 3.Ongoing capability
2020-NORTH BERGEN-008	Critical Facility Outreach – Child Care Centers	Flood, Coastal Storm, Severe Weather	Township Engineer	**Problem:** There are two childcare facilities located in the floodplain and exposed to flood damage. **Solution:** Provide public outreach to property owners informing them that their facility is located within a floodplain and might be susceptible to flood damages. Outreach will include mitigation options to protect the facility from flood damage.	1. Ongoing 2. -	1.Discontinue 2.N/A 3.Ongoing capability
2020-NORTH BERGEN-009	Critical Facility Outreach – Electric Substations	Flood, Coastal Storm, Severe Weather	Township Engineer	**Problem:** There are two electric substation facilities located in the floodplain and exposed to flood damage. **Solution:** Provide public outreach to property owners informing them that their facility is located within a floodplain and might be susceptible to flood damages. Outreach will include mitigation options to protect the facility from flood damage.	1. Ongoing 2. -	1.Discontinue 2.N/A 3.Ongoing capability
2020-NORTH BERGEN-010	Critical Facility Outreach – Hazmat Facility	Flood, Coastal Storm, Severe Weather	Township Engineer	**Problem:** There is one hazmat facility located in the floodplain and exposed to flood damage. **Solution:** Provide public outreach to property owners informing them that their facility is located within a floodplain and might be susceptible to flood damages. Outreach will include mitigation options to protect the facility from flood damage.	1. Ongoing 2. -	1.Discontinue 2.N/A 3.Ongoing capability

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-NORTH BERGEN-011	Critical Facility Outreach – Wastewater Pumps	Flood, Coastal Storm, Severe Weather	Township Engineer	**Problem:** There are four wastewater pump facilities located in the floodplain and exposed to flood damage. **Solution:** Provide public outreach to property owners informing them that their facility is located within a floodplain and might be susceptible to flood damages. Outreach will include mitigation options to protect the facility from flood damage.	1. Ongoing 2. -	1.Discontinue 2.N/A 3.Ongoing capability
2020-NORTH BERGEN-012	Critical Facility Outreach – Wastewater Treatment	Flood, Coastal Storm, Severe Weather	Township Engineer	**Problem:** There are two wastewater treatment facilities located in the floodplain and exposed to flood damage. **Solution:** Provide public outreach to property owners informing them that their facility is located within a floodplain and might be susceptible to flood damages. Outreach will include mitigation options to protect the facility from flood damage.	1. Ongoing 2. -	1.Discontinue 2.N/A 3.Ongoing capability
2020-NORTH BERGEN-013	Critical Facility Outreach – Senior Facility	Flood, Coastal Storm, Severe Weather	Township Engineer	**Problem:** There is one senior facility located in the floodplain and exposed to flood damage. **Solution:** Provide public outreach to property owners informing them that their facility is located within a floodplain and might be susceptible to flood damages. Outreach will include mitigation options to protect the facility from flood damage.	1. Ongoing 2. -	1.Discontinue 2.N/A 3.Ongoing capability

10.7.3 Proposed Hazard Mitigation Actions for the HMP Update

North Bergen participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that North Bergen would like to pursue in the future to reduce the effects of hazards. The actions 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 Township priorities.

Table 10-18 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 10-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 10-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X				X					X
Drought	X				X					X
Extreme Temperatures	X				X					X
Flood	X	X			X	X				X
Geological Hazards	X				X					X
Severe Weather	X	X			X	X				X
Severe Winter Weather	X	X			X					X
Wildfire	X				X					X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 10-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-NorthBergen-001	Mazzoni Place and High Tech High School	1	1	1	1	0	0	0	1	1	1	1	1	1	1	**11**	High
2025-NorthBergen-002	Stormwater Diversion	1	1	1	1	1	0	0	1	1	1	1	1	1	0	**11**	High
2025-NorthBergen-003	Pump Station and Tide Gate	1	1	1	1	1	0	0	1	1	1	1	1	1	0	**11**	High
2025-NorthBergen-004	Backup Power for Board of Education Facilities	1	1	1	1	1	0	0	1	1	1	1	1	1	1	**12**	High
2025-NorthBergen-005	Backup Power for Health Department	1	1	1	0	1	0	0	0	1	1	1	1	1	0	**9**	Medium
2025-NorthBergen-006	Retrofit DPW	1	1	1	1	1	0	0	0	1	1	1	1	1	0	**10**	Medium
2025-NorthBergen-007	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High

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

Action 2025-NorthBergen-001. Flood Mitigation – Mazzoni Place and High Tech High School

Lead Agency:	Town Engineering	
Supporting Agencies:	Hudson County Engineering	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	Mazzoni Place and lower section of the High Tech High School floods during rain/storm events.	
Description of the Solution:	The Town Engineer conducted a study and results show that flood proofing the Mazzoni Place near the lower section of High Tech High School will eliminate flooding in the area. The Township will pursue a scoping application to evaluate potential solutions to identify best alternative to floodproof the facility and prepare a viable HMA subapplication.	
Estimated Cost:	High	
Potential Funding Sources:	HMGP, Municipal Budget, County Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6,7	
Benefits:	This school serves as an emergency shelter for the community. It is critical to maintain this facility during an emergency.	
Impact on Socially Vulnerable Populations:	Flooding disproportionately affects socially vulnerable populations. Flood-proofing Mazzoni Place will help protect these groups by reducing their exposure to flood risks and providing a shelter for those in need during a flood event.	
Impact on Future Development:	Flood-proofing efforts will make the area more resilient to severe weather, potentially encouraging future development by reducing the risk of flood damage.	
Impact on Critical Facilities/Lifelines:	Protecting Mazzoni Place and High Tech High School from flooding ensures that these critical facilities remain operational during emergencies, safeguarding essential services such as shelter and education.	
Impact on Capabilities:	Enhancing flood resilience will improve the community's overall disaster response capabilities, ensuring quicker recovery and better preparedness for future flood events.	
Climate Change Considerations:	Climate change is expected to increase the frequency and intensity of severe weather events, including flooding. Flood-proofing measures will help mitigate these impacts, making the community more resilient to climate-related hazards.	
Mitigation Category	Structural and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Elevate Structures	Complex and costly
	Flood Barriers	Requires regular maintenance

Action 2025-NorthBergen-002. Stormwater Diversion

Lead Agency:	Township Engineering	
Supporting Agencies:	County Engineering	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	West 91st Street constantly floods during rain and storm events.	
Description of the Solution:	Install a new 36” stormwater line extending from 84th Street, connecting New Kirk and Tonnelle Avenue to the new CSO tank. This project is currently under contract and is expected to be completed by the end of 2025.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA PDM, Municipal Budget, County Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6	
Benefits:	Reduces loss and vulnerability to flooding in commercial section of the Township.	
Impact on Socially Vulnerable Populations:	The new stormwater line will reduce flooding on West 91st Street, improving living conditions for vulnerable residents.	
Impact on Future Development:	Better stormwater management will make the area more attractive for new residential and commercial projects.	
Impact on Critical Facilities/Lifelines:	The project will protect essential services like healthcare and emergency response from flood disruptions.	
Impact on Capabilities:	The new infrastructure will help the community handle heavy rain and storms more effectively.	
Climate Change Considerations:	The stormwater line is designed to manage increased rainfall and severe storms due to climate change.	
Mitigation Category	Structural and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Rain Gardens	Requires significant land area and maintenance
	Underground Detention Systems	High cost and complex

Action 2025-NorthBergen-003. Pump Station and Tide Gate

Lead Agency:	Town Engineering
Supporting Agencies:	County Engineering
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Flooding during rain/storm events coupled with tide cycle cause flooding along West Side Ave to 91st Street / Fairview Ave and Railroad Ave.
Description of the Solution:	To mitigate flooding hazards caused by rain/storm events along the northwestern quadrant of the municipality, Town Engineering will install a pump station along West Side Avenue incorporating backflow preventers. Tide gates will be installed at the Fairview Ave. / Railroad Ave. intersection, and dredging of Bellman's Creek will be conducted to prevent surcharge upstream between 91st Street and Railroad Ave. The dredging of Bellman's Creek is currently in the environmental planning phase. Additionally, the replacement of the culvert on 91st Street is under construction and is expected to be completed before the end of 2025.
Estimated Cost:	High
Potential Funding Sources:	HMGP, FMA, Municipal Budget, County Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,6
Benefits:	The western businesses, including warehouses, trucking facilities, and the municipal recreation complex, will remain operational and undisturbed during rain and storm events.
Impact on Socially Vulnerable Populations:	The project will reduce flooding, improving living conditions for vulnerable residents.
Impact on Future Development:	Better flood management will make the area more attractive for new development.
Impact on Critical Facilities/Lifelines:	The project will protect essential services like healthcare and emergency response from flood disruptions.
Impact on Capabilities:	The new infrastructure will help the community handle heavy rain and storms more effectively.
Climate Change Considerations:	The project is designed to manage increased rainfall and severe storms due to climate change.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	_
	Rain Gardens	Requires significant land area and maintenance
	Underground Detention Systems	High cost and complex

Action 2025-NorthBergen-004. Backup Power for Board of Education Facilities

Lead Agency:	Town Board of Education
Supporting Agencies:	-
Hazards of Concern:	Severe Weather, Severe Winter Weather
Description of the Problem:	Power outages at critical facilities owned by the Township Board of Education (BOE).
Description of the Solution:	Install stand-alone natural gas generators with automatic transfer switches to provide emergency power for the following North Bergen Board of Education-owned critical facilities, as identified in the HCSRR: • **North Bergen High School** – Main shelter location & medical Point of Distribution (POD) (Completed) • **Lincoln School** – Midtown shelter location & medical Point of Distribution (POD) (Awaiting funding source) • **Kennedy School** – Downtown shelter location (Awaiting funding source)
Estimated Cost:	Medium
Potential Funding Sources:	BOE Budget, HMGP, PDM
Implementation Timeline:	1-5 years
Goals Met:	1,5,6,7
Benefits:	This action 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:	This action results in protection of a critical facility that could support future development.
Impact on Critical Facilities/Lifelines:	This action ensures continued operation of a critical facility and its essential functions during a power outage.
Impact on Capabilities:	This action ensures continuity of operations to maintain capabilities.
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Microgrid	Costly and difficult to implement.
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-NorthBergen-005. Backup Power for Health Department

Lead Agency:	Town DPW	
Supporting Agencies:	-	
Hazards of Concern:	Severe Weather, Severe Winter Weather	
Description of the Problem:	Supplying backup power to critical structure, Health Dept. located at 1116 43rd street.	
Description of the Solution:	Install stand-alone natural gas generator and automatic transfer switch to provide emergency power for vital records, clinic and medical point of distribution at 1116 43rd Street in North Bergen.	
Estimated Cost:	Medium	
Potential Funding Sources:	Town Budget, HMGP, PDM	
Implementation Timeline:	1-5 years	
Goals Met:	1,5,6,7	
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:	This action results in protection of a critical facility that could support future development.	
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:	This action ensures continuity of operations to maintain capabilities.	
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Emergency Services	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Microgrid	Costly and difficult to implement.
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-NorthBergen-006. Retrofit DPW

Lead Agency:	Town DPW
Supporting Agencies:	-
Hazards of Concern:	Severe Weather, Severe Winter Weather
Description of the Problem:	Facility has insufficient generator capacity to remain fully functional during an emergency.
Description of the Solution:	Adding generator capacity would be supplied to maintain the DPW, the Repair shop and the Police sub-station. The generator would be built at a height above flood stage. This facility has been identified as a critical facility in the risk assessment of this plan.
Estimated Cost:	High
Potential Funding Sources:	HMGP, PDM
Implementation Timeline:	1-5 years
Goals Met:	1,5,6,7
Benefits:	This action 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:	This action results in protection of a critical facility that could support future development.
Impact on Critical Facilities/Lifelines:	This action ensures continued operation of a critical facility and its essential functions during a power outage.
Impact on Capabilities:	This action ensures continuity of operations to maintain capabilities.
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Microgrid	Costly and difficult to implement.
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-NorthBergen-007. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	Town OEM, Town DPW
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
Description of the Solution:	The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 *Developing a Substantial Damage Management Plan* (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	3, 6
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
Impact on Capabilities:	This action improves disaster recovery capabilities.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
Mitigation Category	Local Plans and Regulations
CRS Category	Emergency Services, Preventative Measure
Priority	High

Alternatives	Action	Evaluation
	No Action	-
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements

11. TOWN OF SECAUCUS

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Town of Secaucus with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Secaucus, describes who participated in the planning process, assesses Secaucus's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

11.1 Hazard Mitigation Planning Team

The Town of Secaucus identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Town departments. The Office of Emergency Management represented the community on the Hudson County HMP Planning Partnership and Steering Committee, and supported the local planning process 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.

Table 11-1 summarizes Town officials who participated in the development of the annex and in what capacity. Additional documentation of the Town's planning activities through Planning Partnership meetings is included in Volume I.

Table 11-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Vincent Massaro, Jr, Fire Official/Office of Emergency Management Coordinator Address: 1203 Paterson Plan Rd, Secaucus, NJ 07094 Phone Number: 201-864-1061 Email: vmassaro@secaucus.net	Name/Title: Gary Jeffas, Administrator Address: 1203 Paterson Plan Rd, Secaucus, NJ 07094 Phone Number: 201-330-2008 Email: gjeffas@secaucus.net
National Flood Insurance Program Floodplain Administrator	
Name/Title: Kimberly McCleary, Floodplain Administrator Address: 1203 Paterson Plan Rd, Secaucus, NJ 07094 Phone Number: 201-864-7336 Email: kmmcleary@secaucus.net	
Additional Contributors	
Name/Title: Vince T. Massaro, Fire Official/Office of Emergency Management Coordinator Method of Participation: Participated in the planning process.	
Name/Title: Gary Jeffas, Administrator Method of Participation: Participated in the planning process.	
Name/Title: Kimberly McCleary, Floodplain Administrator Method of Participation: Participated in the planning process.	
Name/Title: Jennifer Modi, Engineer Method of Participation: Participated in the planning process.	

Name/Title: Kevin O'Connor, Superintendent of Public Works Method of Participation: Participated in the planning process.
Name/Title: Carl Leppin III, Construction Code Official Method of Participation: Participated in the planning process.
Name/Title: Michael Marra, Town Clerk Method of Participation: Participated in the planning process.

11.2 Community Profile

11.2.1 Brief History

Secaucus was originally formed as a borough by an Act of the New Jersey Legislature on March 12, 1900, from portions of North Bergen. On June 7, 1900, Secaucus was incorporated as a town, replacing Secaucus borough, based on the results of a referendum held on June 5, 1917. The town has a history that dates back to its early days as Lenape Native American land. The area was purchased by Dutch colonial leader Peter Stuyvesant in 1658 and became part of Bergen Township, one of New Jersey's earliest municipalities. Today, Secaucus blends suburban living with commercial and industrial development while preserving parts of its natural wetlands.

11.2.2 Location

The Town of Secaucus, partially surrounded by the Hackensack Meadowlands, is located in the northwestern portion of Hudson County. The Town shares its borders with the Hackensack River to the north, south and west; and the Town of North Bergen and Jersey City to the east. The Hackensack River separates the Town from Bergen County, forming Hudson County's western border.

11.2.3 Governing Body Format

The Town of Secaucus is governed by a Mayor and Town Council made up of six members. This governing body will be responsible for the adoption and implementation of this plan.

11.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for Secaucus was 22,181, a 30.8 percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 4.8 percent of the population is 5 years of age or younger, 15.1 percent is 65 years of age or older, 9.7 percent is non-English speaking, 5.1 percent is below the poverty threshold, and 8.8 percent is considered disabled.

11.2.4.1 ALICE IN HUDSON COUNTY

ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. While conditions have improved for some households, many continue to struggle, especially as wages fail to keep pace with the rising cost of household essentials (housing, child care, food, transportation, health care, and a basic smartphone plan). Households below the ALICE Threshold – ALICE households plus those in poverty – can't afford the essentials.

According to 2021 Point-in-Time-Data from ALICE, 24 percent of the 292,000 households in Hudson County are ALICE households (compared to the state average of 26 percent). The median household income in Hudson is $80,329, and the County sees a labor force participation rate of 69 percent. Hudson County faces low household income compared to the state average of $89,296 and while the County does carry a 3 percent higher labor participation rate compared to state numbers, 15 percent of Hudson households live in poverty.

11.3 Jurisdictional Capability Assessment and Integration

Secaucus performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

11.3.1 Planning and Regulatory Capability and Integration

Table 11-2 summarizes the planning and regulatory tools that are available to Secaucus.

Table 11-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	State Uniform Construction Code Chapter 64 – Construction Codes, Uniform	State and Local	Construction Department
How has or will this be integrated with the HMP and how does this reduce risk? There is hereby established in the Town of Secaucus a State Uniform Construction Code enforcing agency, pursuant to Chapter 217, Laws of New Jersey 1975, and Title 5, Chapter 23, of the New Jersey Administrative Code, to be known as the "Building Department," consisting of a Construction Official, Building Subcode Official, Plumbing Subcode Official, Electrical Subcode Official, Fire Protection Subcode Official and such other subcode officials for such additional subcodes as the Commissioner of the Department of Community Affairs, State of New Jersey, shall hereafter adopt as part of the State Uniform Construction Code. The Construction Official shall be the chief administrator of the enforcing agency. The State Uniform Construction Code, known as the “Blue Book” adopts and modifies the adopted national codes, establishes administrative rules and authority as well as containing the Rehabilitation Sub-Code in Subchapter 6.				
Zoning/Land Use Code	Yes	Chapter 135 – Zoning	Local	Zoning and NJ Meadowlands Commission
How has or will this be integrated with the HMP and how does this reduce risk? This chapter, to be known in its short form as the "Zoning Ordinance of the Town of Secaucus," is a chapter designed to limit and regulate buildings and uses as to their extent and impact upon the landscape. This chapter specifies districts in which particular uses are permitted or prohibited and details the regulations concerning the construction of structures permitted within these districts. The Town’s code restricts residential building height if located in the flood zone (cannot exceed 35 feet or more than three stories and no basements are permitted). The code also prohibits plants with pervasive root systems in areas where they might cause damage to drainage pipes, underground utilities and stormwater management facilities and they should not be closer than 10 feet to these utilities. In 2015, the Town opted out of NJSEA zoning control, which allows the Town to have more control over planning and zoning although they still need to comply with NJSEA environmental regulations.				
Subdivision Code	Yes	Chapter 119 – Subdivision Ordinance	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of this chapter shall be to provide rules, regulations, and standards to guide land subdivision in the Town of Secaucus, New Jersey, in order to promote the public health, safety, convenience and general welfare of the municipality. It shall be administered to ensure the orderly growth and development, the conservation, protection and proper use of land and adequate provision for circulation, utilities, and services. The Town’s Planning Board is the approving agency for subdivision applications. If there is a question as to the suitability of a lot or lots for their intended use due to factors such as rock formations, flood conditions or similar, the Planning Board may withhold approval of such lots.				
Site Plan Code	Yes	Chapter 119 – Subdivision Ordinance Article II Plant Approval Procedure	Local and County	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? Any owner of land within the Town of Secaucus shall prior to subdividing or resubdividing land, as defined in this chapter, submit to the Secretary of the Planning Board at least two weeks prior to the regular meeting of the Board a sketch plat of the proposed subdivision for purposes of classification and preliminary discussion.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Stormwater Management Code	Yes	Chapters 116A and 116B – Stormwater Management	Local	Construction Code Official
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of this chapter is to establish minimum stormwater management requirements and controls for "major development." The general standards include stormwater management measures for major development will be developed to meet the erosion control, groundwater recharge, stormwater runoff quantity, and stormwater runoff quantity standards. Non-structural stormwater management strategies are encouraged; however, if they are not sufficient to meet the Town's standards, then structural stormwater management measures are necessary. If structural stormwater measures are needed, they must be designed to take into account the existing site conditions, including, for example, environmentally critical areas, wetlands; flood-prone areas; slopes; depth to seasonal high-water table; soil type, permeability and texture; drainage area and drainage patterns; and the presence of solution-prone carbonate rocks (limestone).				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P.L. 2023, c. 93, July 2, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?
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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Growth Management	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Flood Damage Prevention Ordinance	Yes	Chapter 76A – Flood Damage Protection	Federal, State, County and Local	Construction Code Official
How has or will this be integrated with the HMP and how does this reduce risk? The purposes and objectives of these regulations are to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific flood hazard areas through the establishment of comprehensive regulations for management of flood hazard areas, designed to: A. Protect human life and health. B. Prevent unnecessary disruption of commerce, access, and public service during times of flooding. C. Manage the alteration of natural floodplains, stream channels and shorelines. D. Manage filling, grading, dredging and other development which may increase flood damage or erosion potential. E. Prevent or regulate the construction of flood barriers which will divert floodwater or increase flood hazards. F. Contribute to improved construction techniques in the floodplain. G. Minimize damage to public and private facilities and utilities. H. Help maintain a stable tax base by providing for the sound use and development of flood hazard areas. I. Minimize the need for rescue and relief efforts associated with flooding. J. Ensure that property owners, occupants, and potential owners are aware of property located in flood hazard areas. K. Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events. L. Meet the requirements of the National Flood Insurance Program for community participation set forth in Title 44 Code of Federal Regulations, Section 59.22. The ordinance follows the model code coordinated ordinance from NJDEP.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other: Land Use Procedures	Yes	Chapter 19 – Land Use Procedures	Local	Planning and Zoning Boards
How has or will this be integrated with the HMP and how does this reduce risk? Outlines the duties of the Planning Board, including administering the provisions of the land subdivision and site plan review ordinances; and reviewing applications for issuance of a permit for a building or structure in a flood control basin. This chapter also outlines the duties of the Zoning Board of Adjustment, including issuing permits for construction in a flood control basin.				
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	Master Plan	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? State mandated if the municipality has a planning board (40:55D-28) and must be re-examined every ten years (40:55D-89.1). The 2009 Reexamination Master Plan was the 5th reexamination report since the 1979 master plan. As discussed in the County's Master Plan, continuing concern in the Town's plan was adequate growth management for the Town in a regional and local context.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Capital Improvement Plan	Yes	Town of Secaucus Capital Improvement Plan	Local	DPW, Administration
The capital improvement plan limits spending on projects that would encourage development in areas and limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	Yes	Town of Secaucus Stormwater Management Plan, August 2005	Local	Stormwater Program Coordinator
How has or will this be integrated with the HMP and how does this reduce risk? Per NJDEP Storm Water Management Rule (N.J.A.C. 7:8, et seq.). The Municipal Stormwater Regulation Program was developed in response to the U. S. Environmental Protection Agency's (USEPA) Phase II rules published in December 1999. The Department issued final stormwater rules on February 2, 2004 and four (4) NJPDES general permits authorizing stormwater discharges from Tier A and Tier B municipalities, as well as public complexes, and highway agencies that discharge stormwater from municipal separate storm sewers (MS4s). MERI maps - might not be accurate thought; submit stormwater plan through the state each year.				
Stormwater Pollution Prevention Plan	Yes	Stormwater Pollution Prevention Plan, March 2021	Local	Stormwater Program Coordinator
How has or will this be integrated with the HMP and how does this reduce risk? Per NJDEP Storm Water Management Rule (N.J.A.C. 7:8, et seq.). The Municipal Stormwater Regulation Program was developed in response to the U. S. Environmental Protection Agency's (USEPA) Phase II rules published in December 1999. The Department issued final stormwater rules on February 2, 2004 and four (4) NJPDES general permits authorizing stormwater discharges from Tier A and Tier B municipalities, as well as public complexes, and highway agencies that discharge stormwater from municipal separate storm sewers (MS4s)				
Open Space Plan	Yes	Open Space and Recreation Plan (February 18, 2014)	Local	Town Council and Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? This plan is part of the Master Plan for development and redevelopment. Several goals of this plan is to work with NJSEA to restore important wetlands in the town. The plan discusses that the edges of the Town are flood prone and as climate change continues, the risk of flooding becomes greater. To reduce this risk, the plan states that preserving these areas from development is critical in mitigating climatic effects. The Town continue to work towards acquiring open space, at the local, county, and regional level, to support environmentally sensitive areas (floodplains, wetlands, and aquifer recharge areas).				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Community Forest Management Plan	Yes	Town of Secaucus Community Forestry Management Plan 2014-2018 (September 19, 2014)	Local	Shade Tree Committee, Department of Public Works, and Town Administration
How has or will this be integrated with the HMP and how does this reduce risk? The mission of the plan is to ensure the quality of life in the Town by providing for the care and management of the community tree resources through sustainable tree planning, tree maintenance, hazard tree removal, and public outreach. The plan includes goals regarding invasive species and their impact on the tree population (e.g. Emerald Ash Borer) and storm preparation (pre-storm assessment report and preparing for collection post-storm information). This plan is incorporated into the day-to-day operations of the Shade Tree Committee, Environmental Department, and Department of Public Works. Tree inventories are done to determine tree cover, identify maintenance needs, and generate benefit reports using i-Tree inventory software. This inventory also assists with hazard tree identification to determine any hazardous trees. The DPW continually maintains a tree crew that is dedicated to tree maintenance two days each month. Trees are pruned to help improve tree health and structural stability. Tree identification and maintenance helps reduce the potential of downed trees during storm events.				
Transportation Plan	Yes	Part of Town of Secaucus Emergency Operations Plan, 2023	Local	Emergency Managment
The town's transportation plan limit access to hazard areas and provides functionality under disaster conditions such as evacuation routes.				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	Yes	Comprehensive Economic Development Strategy for Hudson County (August 22, 2016)	County, Local	Hudson County Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? This is an update of the 2010-2014 CEDS Regional Plan for Hudson County. It identified several projects that would address flooding in the County, including a flood wall in the Town of Secaucus.				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Town of Secaucus Emergency Operations Plan, 2023	Local	Emergency Management
The EOP cover short-term response and long-term recovery to address communications, evacuation, and housing necessary for identified hazards.				
Continuity of Operations Plan	Yes	Town of Secaucus Emergency Operations Plan, 2023	Local	Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? Continuity of operations is covered under the Town EOP.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	Yes	Town of Secaucus Emergency Operations Plan, 2023	Local	Emergency Management
The goals and policies of the public health plan relate to those of the local hazard mitigation plan.				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

11.3.2 Development and Permitting Capability

Table 11-3 summarizes the capabilities of Secaucus to oversee and track development.

Table 11-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	Yes	The Construction Department issues the permits. However, any development is a two-step process. Applications go to the Zoning Department first then the Construction Department.
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	The Town can only track by block/lot and address
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	No	-
Describe the level of buildout in your jurisdiction.	N/A	88% of the land falls under NJSEA jurisdiction. Any development that falls under NJSEA, applications are filed with NJSEA. New development goes through zoning and then permitting is done through building/construction. For land outside of NJSEA, zoning remains in the Town and follows the Town's zoning ordinance.

11.3.3 Administrative and Technical Capability

Table 11-4 summarizes potential staff and personnel resources available to Secaucus and their current responsibilities that contribute to hazard mitigation.

Table 11-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	Planning Board
Zoning Board of Adjustment	Yes	Zoning Board of Adjustment
Planning Department	Yes	The Engineering and District Zoning Department handles all general engineering services and street opening applications for the Town of Secaucus. The department also reviews and issues Zoning Certificates and Certificates of Continued Occupancy for properties within the NJSEA District in the Town of Secaucus.
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	Town of Secaucus Environmental Department, Environmental Advisory Committee, Shade Tree Committee
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	The Department of Public Works (DPW) garage and offices are located at 370 Secaucus Road, where most of its vehicles are housed. The DPW employees handle the recycling programs and maintain streets, parks, and all public buildings and properties. The Department is responsible for planting at all municipal sites, for holiday decorating, for snow removal during storms, and for a number of aesthetic projects authorized by town officials.
Construction/Building/Code Enforcement Department	Yes	The Construction Department is the Department that enforces the Uniform Construction Code Act as per N.J.S.A. The Construction Department receives and processes applications related to construction, re-construction and development of all parcels within the town's boundary lines. The appointed officials will perform: Zoning review, plan review and after the necessary permits are issued, they will perform all appropriate inspections.
Emergency Management/Public Safety Department	Yes	The Secaucus Office of Emergency Management (OEM), is the primary agency charged with planning and preparing for all types of natural or man-made disasters and coordinating and managing the response and recovery efforts when such disasters strike. Secaucus OEM is comprised of a staff of well-trained and experienced individuals from diverse backgrounds and disciplines. They have trained with such agencies as the Hudson County OEM, the New Jersey State Police, and FEMA. In addition, Secaucus OEM oversees the emergency response teams, which aids the town's First Responders for a variety of long term or other incidents and events. The Secaucus OEM members staff evacuation shelters and reception areas, staff the Emergency Operation Center (EOC) during emergencies, assist PD with traffic details and road closers during major storms, and assist with evacuation and transportation during floods and major fires.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Tree maintenance, culvert cleaning, street maintenance, etc. The Town performs property maintenance inspections of municipal and private properties to identify any drainage blockages, areas that

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		need to be cleaned out to improve flow, and work with private property owners. In the event of a FEMA disaster declaration, the Town utilizes a consultant to assist with FEMA project worksheets, etc.
Mutual aid agreements	Yes	police, fire (Bergen and Hudson), EM - thru the OEMS and county, Title 40 Statutes are the agreements with surrounding communities
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	Human Resource
Other: Environmental Department	Yes	The Environmental Department is instrumental in ensuring that Secaucus promotes initiatives and programs to help preserve our environment thereby making Secaucus a sustainable place to live for future generations. It serves as an advisor to the Mayor and Town Council on local environmental issues and to act as a resource for businesses and individuals in Secaucus who are interested in going green.
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Remington & Vernick Engineering, Boswell Engineering, and municipal staff engineers
Engineers or professionals trained in building or infrastructure construction practices	Yes	The Town is a Class 1 municipality and has licensed code officials on staff. The Town also has an environmental consultant through a professional services agreement. Engineers include Remington & Vernick Engineering, Boswell Engineering, and municipal staff engineers
Planners or engineers with an understanding of natural hazards	Yes	Engineers - Boswell Engineering, municipal staff engineers, Remington & Vernick Engineering; Planners - consulting planner is Clarke Caton Hintz
Staff with expertise or training in benefit/cost analysis	Yes	Chief Financial Officer and grant coordinator on staff
Professionals trained in conducting damage assessments	Yes	Engineers - contractual support
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Technical Assistant
Staff that work with socially vulnerable populations or underserved communities	No	
Environmental scientists familiar with natural hazards	Yes	Environmental consultant - Ellas Environmental
Surveyors	Yes	Public Services Agreement with Boswell Engineering, Matrix Engineering, and the Feraldo Group
Emergency manager	Yes	OEM Director
Grant writers	Yes	Grant Coordinator and contracts Millennium Strategies
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	-	-

11.3.4 Fiscal Capability

Table 11-5 summarizes financial resources available to Secaucus.

Table 11-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement 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	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
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])	

11.3.5 Education and Outreach Capability

Table 11-6 summarizes the education and outreach resources available to Secaucus.

Table 11-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	PIO identified in the EOP by title - the town administrator is the PIO
Personnel skilled or trained in website development	Yes	independent contract with a web developer - Flannegan Productions
Hazard mitigation information available on your website	Yes	The Town's website provides a 'News & Announcements' on the main page of the website. Hazard-related information includes notifying residents to relocate their cars to higher ground and where to find emergency shelters. The website also has a link to register for the Swift Reach 911 notification system. The Town uses this system to issue emergency notifications to residents who are registered.
Social media for hazard mitigation education and outreach	Yes	The Town has a Facebook page where they post municipal news, events, and emergency notifications.
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Shade Tree Commission and Environmental Committee
Warning systems for hazard events	Yes	Swift Reach (reverse 911) - email, voice and text, variable message boards, fire house whistles, social media (Facebook, municipal website)

Outreach Resources	Available? (Yes/No)	Comment
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	The Secaucus Housing Authority (SHA) is an autonomous authority established by the Town of Secaucus in accordance with the requirements of the Local Authorities Fiscal Control Act. The programs are primarily funded by the U.S. Department of Housing & Urban Development (HUD). Its principal mission is to provide decent, safe and sanitary housing to lower income residents who meet the program's guidelines. The Social Service Department is an office that serves people in need throughout the community. The Department provides community information, helps filling out forms, refers people to other departments in the town or county as well as gives food to people in need. The Secaucus Senior Center provides social interaction for seniors, recreation, educational programs, speakers, games, movies, billiards, cards, bingo and arts & crafts for seniors 55 and older. The Meals on Wheels Program is also run at the Senior Center.
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Department of Community Services Information

11.3.6 Community Classifications

Table 11-7 summarizes classifications for community programs available to Secaucus.

Table 11-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No; however, NJSEA participates	7	5/1/2009
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	3	2019
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Sustainable Jersey	Yes	Silver	12/10/2021
Other: Organizations with mitigation focus (advocacy group, non-government)	N/A	-	-

N/A = Not applicable

— = Unavailable

11.3.7 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 2022). Each jurisdiction has a unique

combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 11-8 summarizes the adaptive capacity for each identified hazard of concern and the Town'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 11-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Strong
Geological Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

11.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 11-1 is responsible for maintaining this information.

11.4.1 NFIP Statistics

Table 11-9 summarizes the NFIP policy and claim statistics for Secaucus.

11.4.2 Flood Vulnerability Summary

Table 11-10 provides a summary of the NFIP program in Secaucus.

Table 11-9. Secaucus NFIP Summary of Policy and Claim Statistics

# Policies	**15**
# Claims (Losses)	**85**
Total Loss Payments	**$888,793.45**
# Repetitive Loss Properties (NFIP definition)	**7**
# Repetitive Loss Properties (FMA definition)	**0**
# Severe Repetitive Loss Properties (NFIP definition)	**0**
# Severe Repetitive Loss Properties (FMA definition)	**0**

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2024

Table 11-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	See Flood-damage prevention ordinance 76A; Valley Court, Plaza Center, Golden Ave, Hunbolt St., Gail Place, Ports of Paulamme, Juliemme, Meadowlands Pkwy
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	One person has inquired
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	Born Street pump station improvements
How do you make Substantial Damage determinations?	FEMA Guidelines
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	0
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	13 due to renovations
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	No
NFIP Compliance	

NFIP Topic	Comments
What local department is responsible for floodplain management?	OEM, Engineering and construction departments
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	No
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Could use extra training
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Yes- permit, review, evaluation, pre-con meetings
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	DPW, Engineering and construction departments
What are the barriers to running an effective NFIP program in the community, if any?	Limited capacity and capability; explaining to applicants
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	Unknown
What is the local law number or municipal code of your flood damage prevention ordinance?	Ordinance 76A
What is the date that your flood damage prevention ordinance was last amended?	July 6, 2022
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	This is discussed in pre-app meetings for new applications
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	Interested

11.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 11-11 through Table 11-13.

Table 11-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2019				
Total Permits	2	0	804	806
Permits within SFHA	0	0	0	0
2020				
Total Permits	13	2	745	760
Permits within SFHA	0	2	1	3
2021				
Total Permits	12	1	898	911
Permits within SFHA	1	1	0	2
2022				
Total Permits	8	1	799	808
Permits within SFHA	1	1	0	2
2023				
Total Permits	8	2	3	857
Permits within SFHA	1	2	3	6

SFHA = Special Flood Hazard Area (1% flood event)

Table 11-12. Recent Major Development and Infrastructure from 2017 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
RVR	Residential	403	1 Brianna Way	AE8	25 story high rise
Equinix	Commercial	1	650 Jefferson Ave	AE8	2 story data center
Colesite	Commercial	1	2 Emerson	AE8	4 story data center

** Only location-specific hazard zones or vulnerabilities identified.*

Table 11-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Hartz	Commercial	1	Block 227 Lot 9	AE8	Proposed 1 story warehouse

11.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Secaucus's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

11.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Town are shown in Figure 11-1 through Figure 11-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Secaucus has significant exposure. The maps show the location of potential new development, where available.

Figure 11-1. Secaucus Hazard Area Extent and Location Map 1

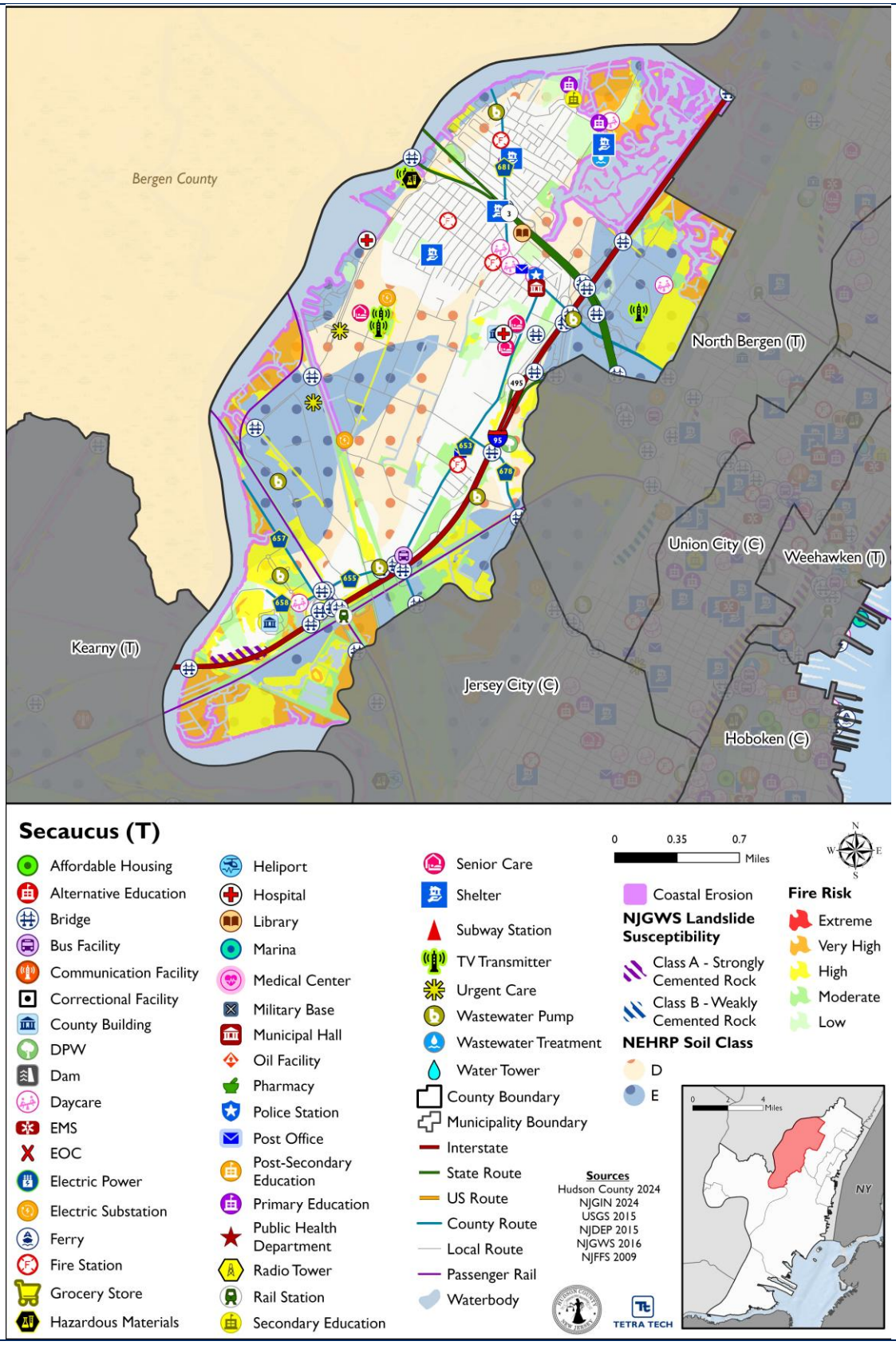


Figure 11-2. Secaucus Hazard Area Extent and Location Map 2

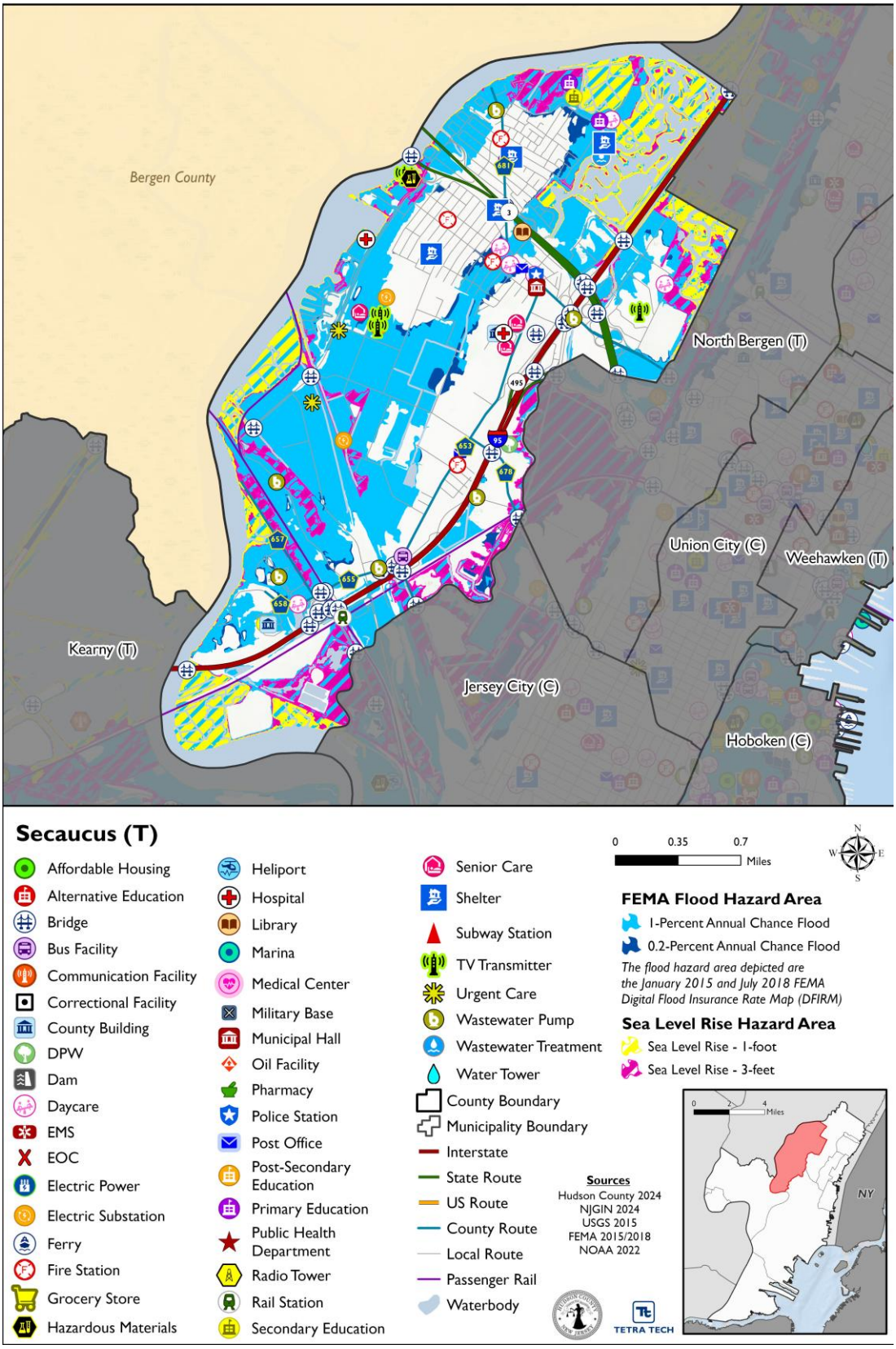
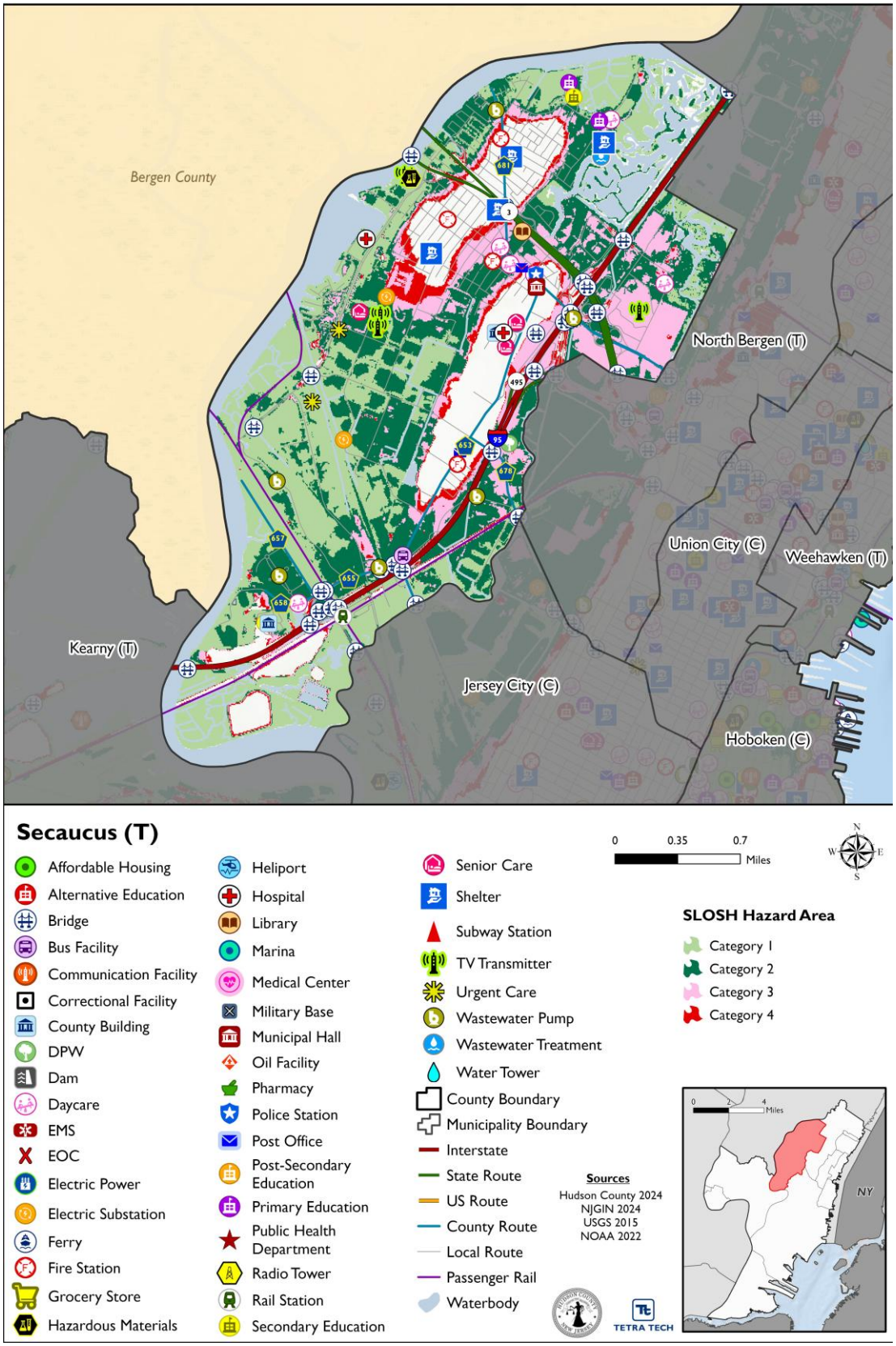


Figure 11-3. Secaucus Hazard Area Extent and Location Map 3



11.6.2 Hazard Event History

The history of natural and non-natural hazard events in Secaucus is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 11-14 provides details on loss and damage in Secaucus during hazard events since the last hazard mitigation plan update.

Table 11-14. Hazard Event History in Secaucus

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Secaucus
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM3451-NJ, DR4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	No physical damages reported at municipal level.
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
August 4, 2020	Tropical Storm Isais (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	Localized flooding reported at several streets within Jersey City; flooded roadways and homes, fallen tree branches, power lines.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	Widespread flooding reported at several streets within Jersey City; flooded roadways and homes, fallen tree branches, power lines.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Secaucus
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	Power outages reported

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

11.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Secaucus .

11.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. Secaucus reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Town indicated the following:

- None Identified

Table 11-15 shows Secaucus's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 11-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Low
Drought	Medium
Extreme Temperatures	Low
Flood	High
Geological Hazards	Low
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

11.6.3.2 Critical Facilities

Table 11-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 11-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
Amerada Hess Corp. Secaucus Terminal	Hazardous Materials	X	X
CARE STATION IV - SECAUCUS	Urgent Care	X	X
Castle Road Pump Station	Wastewater Pump	X	X
CONCENTRA URGENT CARE - SECAUCUS	Urgent Care	X	X
ELRR VIA & COUNTY ROAD	Bridge	X	X
Equinex	Electric Substation	X	X
Exchange Place Pump Station	Wastewater Pump	X	X
FOX TELEVISION STATIONS, LLC	TV Transmitter	X	X
HACKENSACK RV & ERIE RR	Bridge	X	X
Harmony Early Learning Center	Daycare	X	X
HCKNSCK R & MEADWLND PKW	Bridge	X	X
Heavenly Start Academy	Daycare	-	X
JERSEY CITY WATER MAIN	Bridge	X	X
Kiddie Academy	Daycare	X	X
Kiddie Castle	Daycare	X	X
Koelle Boulevard Sewerage Treatment	Wastewater Treatment	X	X
Meadowlands Hospital Medical Center	Hospital	X	X
Meadowlands Transitional Care	Senior Care	-	X
Millridge School	Daycare	X	X
MLB/NHL	TV Transmitter	X	X
NJ TPK (NSE & SNE RDWYS)	Bridge	X	X
Penhorn Creek	Bridge	X	X
SECAUCUS FIRE DEPARTMENT ENGINE COMPANY 3	Fire Station	X	X
Secaucus High School	Secondary Education	X	X
Secaucus Junction Lower Level Station	Rail Station	X	X
Secaucus Junction Upper Level Station	Rail Station	X	X
Secaucus Middle School	Primary Education	X	X
Secaucus Pre_K	Primary Education	X	X
SECAUCUS PUBLIC LIBRARY & BUSINESS RESOURCE CENTER	Library	X	X
SECAUCUS RECREATION CENTER	Shelter	X	X
Village Place Pump Station	Wastewater Pump	X	X

Source: Hudson County 2024; HIFLD 2024; NJGIN 2024

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Secaucus:

- None Identified

11.6.4 Identified Issues

After review of Secaucus's hazard event history, hazard rankings, hazard location, and current capabilities, Secaucus identified the following vulnerabilities within the community:

- The Town's public warning system is a key strength in managing extreme temperatures. However, there is a need for more backup generator power to ensure cooling centers remain operational during power outages. Financial constraints pose significant obstacles to addressing this need. To overcome these challenges, there is an opportunity to seek grants that can fund the necessary improvements, enhancing the community's resilience to extreme heat. *
- The Town's strengths in flood management include an effective warning system, a robust berm system, and well-equipped flood rescue vehicles. However, there is a need to upgrade pump stations and install additional tide gates to enhance flood resilience. Financial constraints pose significant obstacles to these improvements. To address these challenges, there is an opportunity to seek grants that can fund the necessary upgrades, thereby strengthening the community's flood mitigation capabilities. *
- Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:
    - Determine where the damage occurred within the community and if the damaged structures are in an SFHA.
    - Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.
    - Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.
    - Require permits for floodplain development.

  The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- There are 11 repetitive loss properties in the Town of Secaucus. These 11 properties have been repetitively flooded as documented by paid NFIP claims.
- There are several areas in the Town that are subject to tidal flooding and can become inundated with water. This results in road closures, limits access for emergency vehicles, and creates a hazard for residents.
- There are 10 critical facilities located in the Town that are found within the 1% flood area. The Town does not own these facilities and cannot enforce mitigation of the structures.

* This issue was identified as a specific area of concern based on resident response to the Hudson County SWOO worksheet.

11.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

11.7.1 Past Mitigation Action Status

Table 11-17 indicates progress on the Town's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

11.7.2 Additional Mitigation Efforts

In addition to the completed mitigation actions from the previous HMP, Secaucus identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

Table 11-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-SECAUCUS-001	Repetitive Loss Properties	Coastal Storm, Flood, Severe Weather	Town Floodplain Administrator	**Problem:** There are 11 repetitive loss properties in the Town of Secaucus. These 11 properties have been repetitively flooded as documented by paid NFIP claims. **Solution:** Conduct outreach to 11 floodprone property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property owner information and develop a FEMA grant application and BCA to obtain funding to implement mitigation measures.	1.In progress 2. Town continues to do outreach with these homeowners	1.Include 2. No Change 3. N/A
2020-SECAUCUS-002	Hackensack Waterfront Flood Wall	Coastal Storm, Flood, Severe Weather	Town Engineer	**Problem:** The waterfront area of the Town is prone to tidal flooding. Some work has been done but additional work needs to be completed. **Solution:** In the fall of 2015, the first 400 feet of wall was constructed ($191,000). The final wall is expected to be 2,000+ feet. It will protect the waterfront area in the second ward from flooding.	1.Complete 2. Project has been completed	1.Discontinue 2.N/A 3. Project has been completed.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-SECAUCUS-003	Check Valves on Collection System Discharges	Coastal Storm, Flood, Severe Weather, Severe Winter Weather	Town DPW, Town Engineer	**Problem:** There are several areas in the Town that are subject to tidal flooding and can become inundated with water. This results in road closures, limits access for emergency vehicles, and creates a hazard for residents. **Solution:** Install check valves on collection system discharges subject to tidal influence at terminus of Paterson Plan Road, Meadowlands Parkway and Route 3 East exit ramp, Plaza Center Drive and Route 3 East.	1.In Progress 2. Trying to get rectified; work has started in the area but there's still pending design work to implement in the area and to discuss between all project stakeholders.	1.Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-SECAUCUS-004	Critical Facility Outreach	Flood	Town Floodplain Administrator	**Problem:** There are 10 critical facilities located in the Town that are found within the 1% flood area. The Town does not own these facilities and cannot enforce mitigation of the structures. **Solution:** The Town will implement an outreach program to inform facility owners and operators that their structure is located in the floodplain and may experience flood damage. The Town will provide information on mitigation which will include options to protect the structures. If the facility chooses to elevate, acquire or relocate, the Town will work with them to develop a grant application.	1.In Progress 2. Town did create outreach program but continues engaging with homeowners to assist with them on flood mitigation.	1.Include 2.No change 3. N/A

11.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Secaucus participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Secaucus would like to pursue in the future to reduce the effects of hazards. The actions 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 Town priorities.

Table 11-18 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 11-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 11-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X				X					X
Drought	X				X					X
Extreme Temperatures	X	X			X					X
Flood	X	X			X				X	X
Geological Hazards	X				X					X
Severe Weather	X	X			X				X	X
Severe Winter Weather	X				X					X
Wildfire	X				X					X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 11-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
Action 2025-Secaucus-001	Cooling Center Generators	1	1	1	1	1	0	0	1	1	0	1	1	1	1	**11**	High
Action 2025-Secaucus-002	Infrastructure Upgrades	0	1	1	1	1	0	1	1	1	1	1	1	1	1	**12**	High
Action 2025-Secaucus-003	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	**13**	High
Action 2025-Secaucus-004	Repetitive Loss Properties	1	1	1	1	1	1	0	0	1	1	1	1	1	1	**12**	High
Action 2025-Secaucus-005	Valves on Collection System Discharges	1	1	1	0	1	0	0	0	1	1	1	1	1	0	**9**	Medium
Action 2025-Secaucus-006	Critical Facility Outreach	1	1	1	1	1	1	0	1	1	0	1	1	1	1	**12**	High

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

Action 2025-Secaucus-001. Cooling Center Generators

Lead Agency:	Office of Emergency Management	
Supporting Agencies:	Department of Public Works	
Hazards of Concern:	Extreme Temperatures	
Description of the Problem:	The Town's public warning system is a key strength in managing extreme temperatures. However, there is a need for more backup generator power to ensure cooling centers remain operational during power outages. Financial constraints pose significant obstacles to addressing this need.	
Description of the Solution:	To overcome these challenges, the Town will seek grants to fund the installation of additional backup generators at cooling centers. This will ensure these centers remain operational during power outages, enhancing the community's resilience to extreme heat.	
Estimated Cost:	High	
Potential Funding Sources:	HMGP, Municipal Budget	
Implementation Timeline:	1-5 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:	Encourages the integration of resilient infrastructure in future community planning.	
Impact on Critical Facilities/Lifelines:	Ensures critical cooling centers remain operational during power outages, maintaining essential services.	
Impact on Capabilities:	Enhances the Town's ability to manage extreme temperature events and improve overall emergency preparedness.	
Climate Change Considerations:	Addresses the increasing frequency and intensity of extreme temperature events due to climate change.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Microgrid	Costly and difficult to implement.
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-Secaucus-002. Infrastructure Upgrades

Lead Agency:	Department of Public Works
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	The Town's strengths in flood management include an effective warning system, a robust berm system, and well-equipped flood rescue vehicles. However, there is a need to upgrade pump stations and install additional tide gates to enhance flood resilience. Financial constraints pose significant obstacles to these improvements.
Description of the Solution:	To address these challenges, the Town's Department of Public Work's will seek grants to fund the necessary upgrades to pump stations and the installation of additional tide gates. These improvements will enhance the community's flood resilience and ensure better management of flood events.
Estimated Cost:	High
Potential Funding Sources:	HMGP, Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,6,7
Benefits:	• Reduced risk of flooding and resulting damage to facilities. • Less risk of interruption to potable water services.
Impact on Socially Vulnerable Populations:	Vulnerable areas that may otherwise experience a loss of water during heavy rain or flooding will be more likely to retain services.
Impact on Future Development:	Communities with sound and resilient infrastructure encourage commercial and residential development.
Impact on Critical Facilities/Lifelines:	Hydration lifeline is more likely to remain intact.
Impact on Capabilities:	Maintaining operational water services reduces recovery time and costs.
Climate Change Considerations:	Consideration should be taken regarding the increase in heavy rain and flood events as a result of climate change.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Structural Flood Control Projects
Priority	High

Alternatives

Action	Evaluation
No Action	-
Temporary flood barriers	Labor-intensive
Community based flood monitoring	Does not address underlying infrastructure issues

Action 2025-Secaucus-003. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	OEM, DPW
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
Description of the Solution:	The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 *Developing a Substantial Damage Management Plan* (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	3, 6
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
Impact on Capabilities:	This action improves disaster recovery capabilities.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
Mitigation Category	Local Plans and Regulations
CRS Category	Emergency Services, Preventative Measure
Priority	High

Alternatives	Action	Evaluation
	No Action	-
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements

Action 2025-Secaucus-004. Repetitive Loss Properties

Lead Agency:	Floodplain Administrator
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	There are 7 repetitive loss properties in the Town of Secaucus. These 7 properties have been repetitively flooded as documented by paid NFIP claims.
Description of the Solution:	Conduct outreach to 11 flood prone property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property owner information and develop a FEMA grant application and BCA to obtain funding to implement mitigation measures.
Estimated Cost:	Low
Potential Funding Sources:	Municipal Budget, FMA, HMGP
Implementation Timeline:	1-5 years
Goals Met:	1,2,5
Benefits:	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage (if acquiring 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:	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.
Impact on Critical Facilities/Lifelines:	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.
Impact on Capabilities:	Removing the risk from the immediate floodplain via acquisition of properties will free up resources for search and rescue and other emergency operations as needed.
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of severe rainfall, flash flooding, riverine flooding, and coastal flooding from sea level rise and storm surge events. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.
Mitigation Category	Education and Awareness Program, Structure and Infrastructure Project
CRS Category	Preventative Measure, Property Protection, Public Information
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Levee around floodplain	Costly, not enough room
	Deployable flood barriers	Requires deployment. Residents may not have adequate time to deploy, especially those who are elderly or disabled.

Action 2025-Secaucus-005. Valves on Collection System Discharges

Lead Agency:	Town DPW	
Supporting Agencies:	Town Engineer	
Hazards of Concern:	Flood, Severe Weather, Severe Winter Weather	
Description of the Problem:	There are several areas in the Town that are subject to tidal flooding and can become inundated with water. This results in road closures, limits access for emergency vehicles, and creates a hazard for residents.	
Description of the Solution:	Install check valves on collection system discharges subject to tidal influence at terminus of Paterson Plan Road, Meadowlands Parkway and Route 3 East exit ramp, Plaza Center Drive and Route 3 East.	
Estimated Cost:	Medium	
Potential Funding Sources:	HMGP, Municipal Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6,7	
Benefits:	Reduce or eliminate tidal flooding along roadways in Town.	
Impact on Socially Vulnerable Populations:	Installing check valves reduces flooding in vulnerable areas, improving emergency access, health outcomes, and community resilience for socially at-risk populations.	
Impact on Future Development:	Not applicable	
Impact on Critical Facilities/Lifelines:	Ensures emergency response routes remain accessible during tidal events.	
Impact on Capabilities:	Enhances the Town's ability to manage stormwater and tidal surges more effectively	
Climate Change Considerations:	As sea level rise and more intense storms driven by climate change increase the risk of tidal flooding, installing check valves offers a cost-effective and adaptive solution to help the town better prepare for these future conditions.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection, Structural Flood Control Project	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Elevating roads and infrastructure	Costly and complex
	Constructing tide gates and flood barriers	Expensive, requires ongoing maintenance

Action 2025-Secaucus-006. Critical Facility Outreach

Lead Agency:	Floodplain Administrator
Supporting Agencies:	-
Hazards of Concern:	Flood
Description of the Problem:	There are 10 critical facilities located in the Town that are found within the 1% flood area. The Town does not own these facilities and cannot enforce mitigation of the structures.
Description of the Solution:	The Town has developed and implemented an outreach program to inform facility owners and operators that their structures are located within the floodplain and may be at risk of flood damage. As part of this initiative, the Town provides information on various mitigation options, including elevation, acquisition, and relocation, and offers support in developing grant applications for those pursuing these measures. While the outreach program is in place, the Town continues to actively engage with homeowners to assist them in identifying and implementing appropriate flood mitigation strategies.
Estimated Cost:	Low
Potential Funding Sources:	Municipal Budget, FMA, HMGP
Implementation Timeline:	1-5 years
Goals Met:	1,2,5,7
Benefits:	Increase awareness of hazards, provides solutions to protect from flooding.
Impact on Socially Vulnerable Populations:	Helps at-risk residents access flood risk information and resources, improving equity and resilience.
Impact on Future Development:	Encourages flood-aware building and planning, supporting safer, more resilient growth.
Impact on Critical Facilities/Lifelines:	Reduces strain on emergency services by lowering flood impacts on nearby homes and infrastructure.
Impact on Capabilities:	Builds local capacity through stronger community engagement and grant support.
Climate Change Considerations:	Promotes adaptive actions to address increasing flood risks from climate change.
Mitigation Category	Education and Awareness Program
CRS Category	Public Information
Priority	High

Alternatives

Action	Evaluation
No Action	-
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Town
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving guidance

12. CITY OF UNION CITY

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the City of Union City with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Union City, describes who participated in the planning process, assesses Union City's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

12.1 Hazard Mitigation Planning Team

The City of Union City identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many City departments. The OEM Coordinator represented the community on the Hudson County HMP Planning Partnership and Steering Committee and supported the local planning process 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.

Table 12-1 summarizes City officials who participated in the development of the annex and in what capacity. Additional documentation of the City's planning activities through Planning Partnership meetings is included in Volume I.

Table 12-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Carl O'Brien, City Engineer Colliers Engineering and Design Address: 400 Valley Rd, Ste 304 Mt Arlington, NJ 07856 Phone Number: 973-398 -3110 Email: carl.obrien@collierseng.com	Name/Title: Tammy Zucca, Chief Financial Officer Address: 3715 Palisade Avenue Union City, NJ, 07087 Phone Number: 201-348-5721 Email: tzucca@ucnj.com
National Flood Insurance Program Floodplain Administrator	
Name/Title: Martin T. Martinetti, Construction Code Official Address: 3715 Palisade Avenue Union City, NJ, 07087 Phone Number: 201-348-5711 Email: mmartinetti@ucnj.com	
Additional Contributors	
Name/Title: Martin T. Martinetti, Construction Code Official Method of Participation: Provided updated information on NFIP, capabilities, building permits and new development, and hazard event history.	
Name/Title: Carl O'Brien, City Engineer Method of Participation: Participated in planning process.	
Name/Title: Tammy Zucca, Chief Financial Officer Method of Participation: Participated in planning process.	
Name/Title: Ryan Duffy, City Engineer	

Method of Participation: Participated in planning process, provided updated information on hazard ranking, and SWOO worksheets.
Name/Title: David Spatz, Planning and Community Development Consultant Method of Participation: Participated in planning process.
Name/Title: Nino Iglesias, Department of Public Works Director Method of Participation: Participated in planning process.
Name/Title: Brian P. Stack, Mayor Method of Participation: Participated in planning process.
Name/Title: Hilda Rosario, Acting City Clerk Method of Participation: Participated in planning process.
Name/Title: Paul Bazela, Engineer Method of Participation: Participated in planning process.
Name/Title: Treicy Galvan, Technical Assistant to the Construction Official Method of Participation: Participated in planning process, and provided information for building permits and new development.
Name/Title: Mario Bordon, OEM Coordinator Method of Participation: Participated in planning process, provided updated information on worksheets and annex feedback.

12.2 Community Profile

12.2.1 Brief History

The area of what is today Union City was originally inhabited by the Lenape, but was later settled by Germans in 1851, which moved across the Hudson River from New York City in search of affordable land and open space. From the mid-1800s to the early 1900s, German Americans and Dutch dominated the area. They, along with Swiss and Austrian immigrants, founded the European-style lace making industries, for which they were famous. Union City and West New York became the "embroidery capitol of the United States", and the area between what is now Palisade and Bergenline Avenue, from 22nd to 32nd Street was a Civil War installation called Camp Yates. Trolleys began to operate in West Hoboken and Union Hill in 1890, after the area was electrified. The area on which Roosevelt Stadium stood was part of a farm called Kerrigan Farm. The street that now runs from 15th Street to 25th and ends at the stadium site is called Kerrigan Avenue. The embroidery industry's trademark is on the Union City Seal. At the turn of the 20th century, Irish and Italian immigrants came to the city, and dominated the city until the late 1960s. The first Cubans immigrated to Union City in the 1940s, having been attracted to the city in search of work after hearing of its famed embroidery factories. Successive waves of immigrants from Eastern Europe, the Near East and Latin America have contributed imagination and skill to the industry in subsequent years. Then, as today, Union City is a destination for immigrants because it serves as a more affordable and less congested alternative to Manhattan. The Hudson County Master Plan Re-Examination Report notes that 62.86% of residents in Union City are foreign born (Hudson County 2013).

12.2.2 Location

Union City is located at 40°46’4”N, 74°1’55”W (40.767651, -74.031833). It is bordered by North Bergen in the west and West New York to the north, Weehawken to the east, and Hoboken to the southeast and Jersey City to the south. According to the United States Census Bureau, the city has a total area of 1.3 sq. mi (3.3 km²). All of it is land and none of it is covered by water. It meets with Jersey City along Paterson Plank Road while Kennedy Boulevard divides Union

City and North Bergen right down the west side of the city with the exception of a small portion of Kennedy Boulevard which is entirely in Union City from 32nd Street to 39th Street. The City is only two miles from New York City via the Lincoln Tunnel, one mile to the New Jersey Turnpike, four miles from the Garden State Parkway, and is situated at the junction of Route 495, Route 3, and U.S. Route 1/9.

12.2.3 Governing Body Format

Union City is governed by the Board of Commissioners. Five members comprise the Union City Board of Commissioners and serve in both administrative and legislative capacities. Each commissioner acts as the director of one of the five major department of the City, administering the daily operations of his or her department. The five major department of Union City government are Public Safety, Revenue and Finance, Parks and Public Properties, Public Works, and Public Affairs. When they act collectively as a Board, the Commissioners conduct the business of the city, such as adopting the city budget and passing resolutions and ordinances. The commissioners decide among themselves who will be the position of Mayor.

12.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for Union City was 68,589, a 3.16 percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 6.0 percent of the population is 5 years of age or younger, 11.9 percent is 65 years of age or older, 24.2 percent is non-English speaking, 19.7 percent is below the poverty threshold, and 11.2 percent is considered disabled.

12.2.4.1 ALICE in Hudson County

ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. While conditions have improved for some households, many continue to struggle, especially as wages fail to keep pace with the rising cost of household essentials (housing, child care, food, transportation, health care, and a basic smartphone plan). Households below the ALICE Threshold – ALICE households plus those in poverty – can't afford the essentials.

According to 2021 Point-in-Time-Data from ALICE, 24 percent of the 292,000 households in Hudson County are ALICE households (compared to the state average of 26 percent). The median household income in Hudson is $80,329, and the County sees a labor force participation rate of 69 percent. Hudson County faces low household income compared to the state average of $89,296 and while the County does carry a 3 percent higher labor participation rate compared to state numbers, 15 percent of Hudson households live in poverty.

12.3 Jurisdictional Capability Assessment and Integration

Union City performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

12.3.1 Planning and Regulatory Capability and Integration

Table 12-2 summarizes the planning and regulatory tools that are available to Union City.

Table 12-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	Chapter 4 Administration of Local Government, Chapter 122 Construction Codes, Uniform	State and Local	Construction Code Official
How has or will this be integrated with the HMP and how does this reduce risk? State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14. There is hereby established in the City a State Uniform Construction Code enforcing agency to be known as the Construction Code Agency of the City of Union City, consisting of a Construction Official, Building Subcode Official, Plumbing Subcode Official, Fire Protection Subcode Official and such other subcode officials for such additional subcodes as the Commissioner of the Department of Community Affairs, State of New Jersey, shall hereafter adopt as part of the State Uniform Construction Code.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Zoning/Land Use Code	Yes	Chapter 223 Land Development Article VI Zoning	Local	City Zoning Officer
How has or will this be integrated with the HMP and how does this reduce risk? Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49. Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan.				
Subdivision Code	Yes	Chapter 223 Land Development Article III Development Requirements and Standards Chapter 370 Subdivision of Land	Local	City Zoning Officer and Building Subcode Official
How has or will this be integrated with the HMP and how does this reduce risk? Chapter 223: The intent of this section is to ensure that all developments conform to design standards encouraging sound development patterns within the City. The standards in this section shall apply to all developments in the City requiring site plan or subdivision approval, except that developments consisting solely of residential uses shall comply with the New Jersey Residential Site Improvement Standards (RSIS), N.J.A.C. 5:21 et seq., wherever there is a conflict between RSIS and the standards in this section. Unless required otherwise by law or regulation, RSIS shall not apply to nonresidential or mixed-use development. Chapter 370: The purpose of this chapter shall be to provide rules, regulations and standards to guide land subdivision in the City in order to promote the public health, safety, convenience and general welfare of the municipality. It shall be administered to insure the orderly growth and development, the conservation, protection and proper use of land and adequate provision for circulation, utilities, and services.				
Site Plan Code	Yes	Chapter 223 Land Development Article IV Development Review Procedures	Local and County	Building Department
How has or will this be integrated with the HMP and how does this reduce risk? A site plan approval is required for all developments which do not meet the definition of "site plan, exempt."				
Stormwater Management Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P.L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?
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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:
- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

Growth Management	Yes	Chapter 370 Subdivision of Land	Local	Planning Board

How has or will this be integrated with the HMP and how does this reduce risk?
State mandated at a local level.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Flood Damage Prevention Ordinance	Yes	Chapter 175 Flood Damage Prevention	Federal, State, County and Local	Construction Official, Building, Electrical, Plumbing and Fire Subcode Official
How has or will this be integrated with the HMP and how does this reduce risk? The Construction Official shall: (1) Verify and record the actual elevation, in relation to mean sea level, of the lowest habitable floor, including basement, of all new or substantially improved structures. (2) For all new or substantially improved floodproofed structures: (a) Verify and record the actual elevation, in relation to mean sea level. (b) Maintain the floodproofing certifications required. (3) Maintain for public inspection all records pertaining to the provisions of this chapter. The ordinance is not the model code coordinated ordinance and requires update.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	N/A	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive Plan	Yes	City of Union City Hudson County Master Plan Re-Examination Report 2021	Local	Board of Commissioners
How has or will this be integrated with the HMP and how does this reduce risk? The Reexamination Report discusses smart growth, eliminating sub-standard properties through code enforcement, education, and ordinance updates; adaptive reuse of structures; adopting a streetscape plan; and encouraging open space.				
Capital Improvement Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	N/A	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Municipal Emergency Operations Plan	Local	Emergency Management Office
How has or will this be integrated with the HMP and how does this reduce risk? Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years.				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	N/A	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

12.3.2 Development and Permitting Capability

Table 12-3 summarizes the capabilities of Union City to oversee and track development.

Table 12-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	Yes	Building Department is responsible for issuing development permits.
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	The Building Department lacks GIS capabilities.
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	Yes	Rent Control and Building Department have vacant lot inventory and abandoned structure list.
Describe the level of buildout in your jurisdiction.	N/A	-

12.3.3 Administrative and Technical Capability

Table 12-4 summarizes potential staff and personnel resources available to Union City and their current responsibilities that contribute to hazard mitigation.

Table 12-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	Planning Board
Zoning Board of Adjustment	Yes	Zoning Board
Planning Department	Yes	Planning Department
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	Department of Public Works
Construction/Building/Code Enforcement Department	Yes	Building Department
Emergency Management/Public Safety Department	Yes	OEM
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	North Hudson Sewerage authority, DPW and Public service do annual tree trimming
Mutual aid agreements	Yes	Police, EMS, Fire is regional
Human Resources Manual - Do any job descriptions specifically include identifying or	No	-

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
implementing mitigation projects or other efforts to reduce natural hazard risk?		
Other	N/A	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	David Spatz, Professional Planner and Carl O'Brien, City Engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	Martin Martinetti & Sal Ferlise, Union City Building Department; Carl O'Brien, City Engineer
Planners or engineers with an understanding of natural hazards	Yes	David Spatz, Professional Planner; Carl O'Brien, City Engineer
Staff with expertise or training in benefit/cost analysis	Yes	Colliers Consulting; Municipal Division
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Carl O'Brien
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	Yes	Consulting, Environmental Division
Surveyors	Yes	Consulting; Municipal Division
Emergency manager	Yes	Mario Boron, Office of Emergency Management Coordinator
Grant writers	Yes	David Spatz, Professional Planner; Carl O'Brien, City Engineer
Resilience Officer	No	
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Snow Emergency Committee (can be used for any kind of forecasted hazard)

12.3.4 Fiscal Capability

Table 12-5 summarizes financial resources available to Union City.

Table 12-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement 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	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

12.3.5 Education and Outreach Capability

Table 12-6 summarizes the education and outreach resources available to Union City.

Table 12-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Fanny Cedeno
Personnel skilled or trained in website development	Yes	Alpha Dog and the Clerk
Hazard mitigation information available on your website	Yes	Information posted as needed
Social media for hazard mitigation education and outreach	Yes	Information posted as needed through various social media.
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Community meetings with police department several times a week.
Warning systems for hazard events	Yes	Reverse, Nixle through the County, electronic boards, social media, and city website.
Natural disaster/safety programs in place for schools	No	N/A
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	North Hudson Community Action Corp
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Fire and lockdown drills at schools; active shooter training/drills (schools, mosque, Jewish Community Center).

12.3.6 Community Classifications

Table 12-7 summarizes classifications for community programs available to Union City.

Table 12-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Sustainable Jersey	Yes	N/A	1/19/2022
Other: Organizations with mitigation focus (advocacy group, non-government)	N/A	-	-

N/A = Not applicable; — = Unavailable

12.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 12-8 summarizes the adaptive capacity for each identified hazard of concern and the City'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 12-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Weak
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Moderate
Geological Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

12.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 12-1 is responsible for maintaining this information.

12.4.1 NFIP Statistics

Table 12-9 summarizes the NFIP policy and claim statistics for Union City.

12.4.2 Flood Vulnerability Summary

Table 12-10 provides a summary of the NFIP program in Union City.

Table 12-9. Union City NFIP Summary of Policy and Claim Statistics

# Policies	0
# Claims (Losses)	0
Total Loss Payments	$0.00
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties (NFIP defitniton)	0
# Severe Repetitive Loss Properties (FMA defitniton)	0

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2024

Table 12-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	N/A
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	N/A
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	No
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	0
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	0
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	0
NFIP Compliance	
What local department is responsible for floodplain management?	N/A
Are any certified floodplain managers on staff in your jurisdiction?	No

NFIP Topic	Comments
Do you have access to resources to determine possible future flooding conditions from climate change?	No
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	N/A
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	N/A
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Building Department
What are the barriers to running an effective NFIP program in the community, if any?	None
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	?
What is the local law number or municipal code of your flood damage prevention ordinance?	N/A
What is the date that your flood damage prevention ordinance was last amended?	N/A
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	N/A
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	N/A
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	?

12.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 12-11 through Table 12-13.

Table 12-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2019				
Total Permits	N/A	N/A	N/A	13
Permits within SFHA	N/A	N/A	N/A	0
2020				
Total Permits	N/A	N/A	N/A	15
Permits within SFHA	N/A	N/A	N/A	0
2021				
Total Permits	N/A	N/A	N/A	16
Permits within SFHA	N/A	N/A	N/A	0
2022				
Total Permits	N/A	N/A	N/A	8
Permits within SFHA	N/A	N/A	N/A	0
2023				
Total Permits	N/A	N/A	N/A	12
Permits within SFHA	N/A	N/A	N/A	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 12-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
No recent major development and infrastructure identified.					

** Only location-specific hazard zones or vulnerabilities identified.*

Table 12-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
No known or anticipated major development and infrastructure identified for the next five years.					

12.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Union City's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

12.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the City are shown in Figure 12-1 through Figure 12-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Union City has significant exposure. The maps show the location of potential new development, where available.

Figure 12-1. Union City Hazard Area Extent and Location Map 1

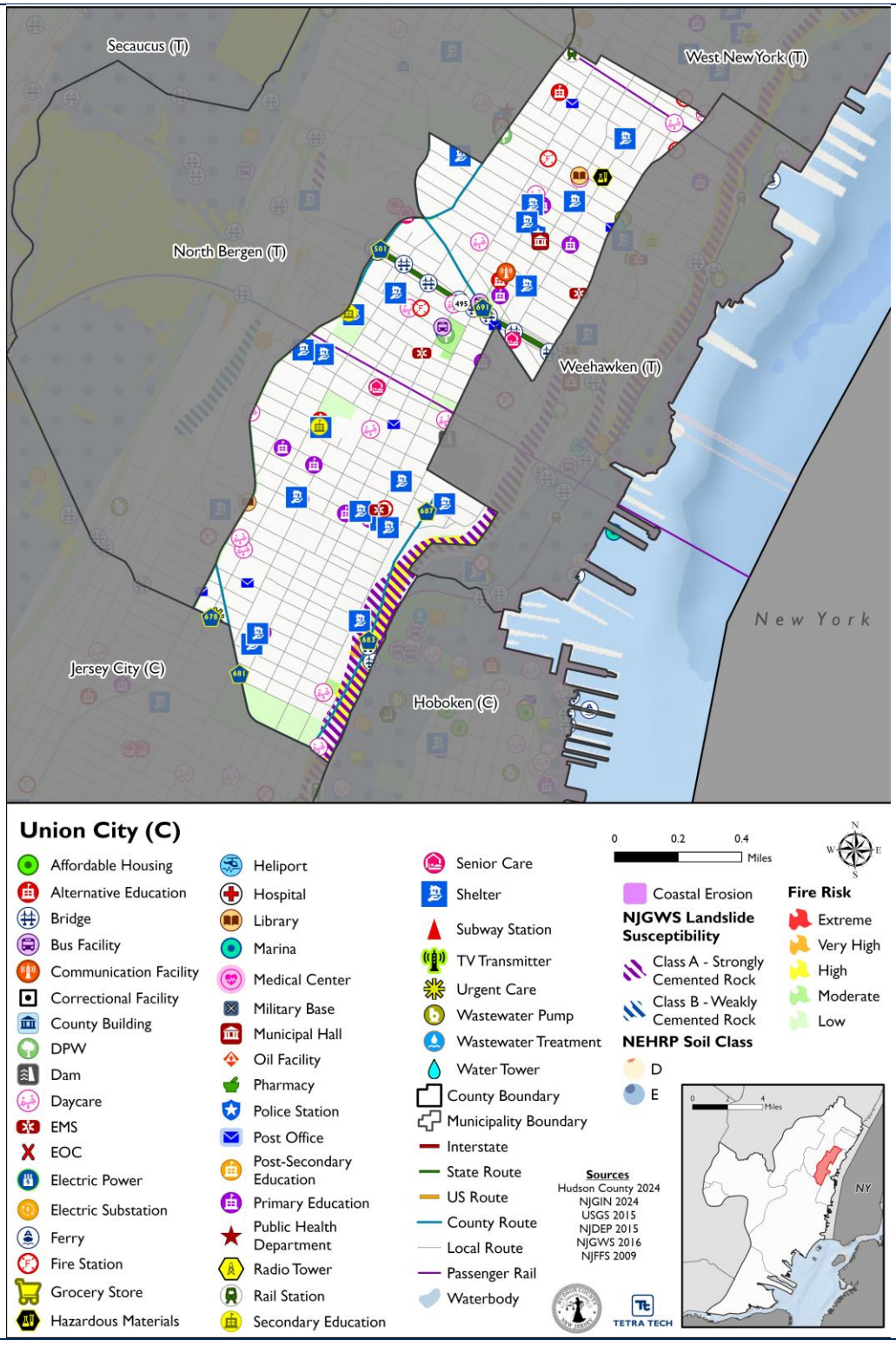


Figure 12-2. Union City Hazard Area Extent and Location Map 2

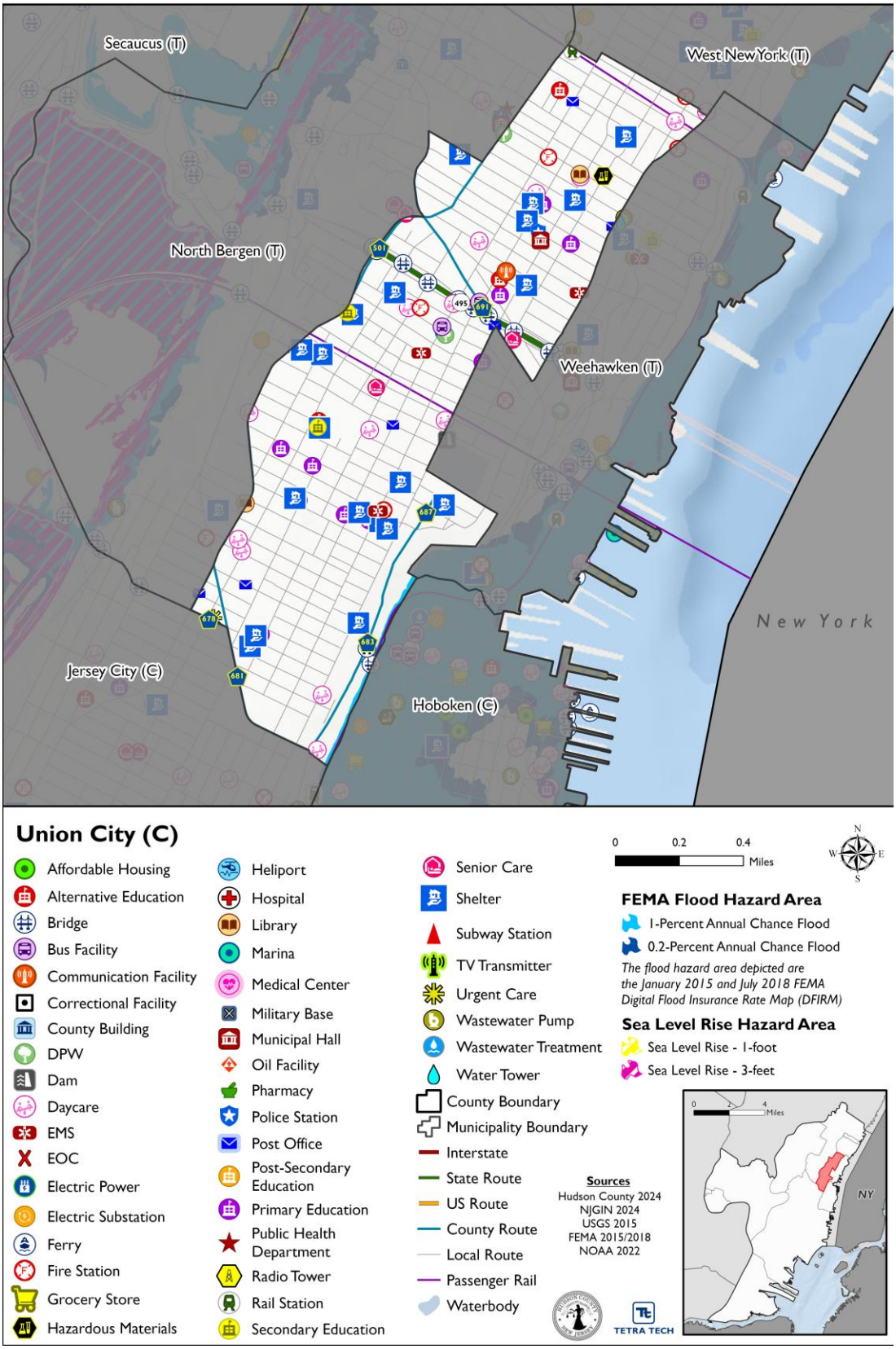
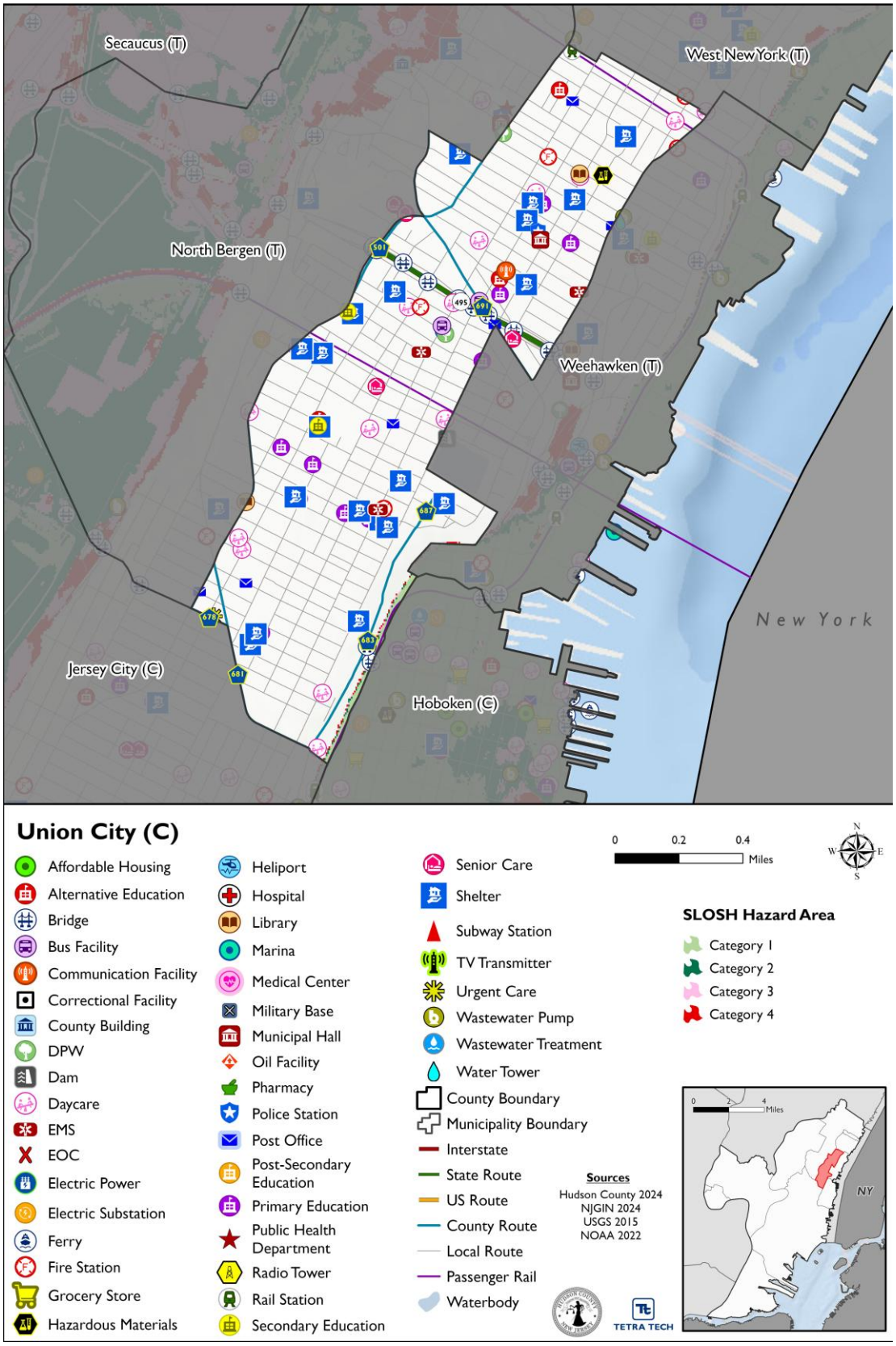


Figure 12-3. Union City Hazard Area Extent and Location Map 3



12.6.2 Hazard Event History

The history of natural and non-natural hazard events in Union City is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 12-14 provides details on loss and damage in Union City during hazard events since the last hazard mitigation plan update.

Table 12-14. Hazard Event History in Union City

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Union City
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM3451-NJ, DR4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	No physical damages reported at municipal level.
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
August 4, 2020	Tropical Storm Isais (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	Localized flooding reported at several streets within Union City; flooded roadways and homes, fallen tree branches, power lines.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	Widespread flooding reported at several streets within Union City; flooded roadways and homes, fallen tree branches, power lines.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Union City
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	Power outages reported, road closures and debris impacting sidewalks.

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

12.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Union City.

12.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. Union City reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the City indicated the following:

- Increased risk for geological hazards from low to medium due to extensive tunneling.

Table 12-15 shows Union City's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 12-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Low
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Geological Hazards	Medium
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

12.6.3.2 Critical Facilities

Table 12-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 12-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
HBLTR & Local Streets	Bridge	X	X

Source: Hudson County 2024; HIFLD 2024; NJGIN 2024

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Union City:

- None Identified

12.6.4 Identified Issues

After review of Union City's hazard event history, hazard rankings, hazard location, and current capabilities, Union City identified the following vulnerabilities within the community:

- In the event of a dam failure, the community's ability to respond swiftly and effectively is supported by strong emergency management protocols and clear communication channels. However, the aging infrastructure poses significant risks, and the response efforts are hindered by funding constraints and the complexities of regulatory and multi-agency agreements. To enhance resilience and mitigate future risks, there are opportunities to invest in stormwater improvements and sewer upgrades.*
- In the face of drought, the community's strength lies in its robust communication and coordination efforts. However, the urban environment with limited green space exacerbates the challenges posed by high population density. These factors complicate effective drought management. To address these issues, there is an opportunity to develop comprehensive community response programs specifically designed to mitigate the impacts of drought.*
- In the event of an earthquake, the community benefits from a building department that facilitates easy coordination of issues and developments. However, the presence of old infrastructure poses significant risks, and financial constraints complicate the upkeep of these buildings and the assurance of their structural integrity. To address these challenges, there is an opportunity to enhance communication pathways between the City and its residents, fostering better preparedness and response strategies.*
- In the face of extreme temperatures, the community benefits from buildings equipped with air conditioning and shaded areas provided by trees and shade structures. However, the high population density increases the demand for these cooling resources. Efforts to expand shade and cooling infrastructure are hindered by limited space and funding constraints. To address these challenges, there is an opportunity to install new shade structures and air conditioning in social spaces, enhancing the community's resilience to extreme heat.*

- In the event of geological hazards, the community's strengths lie in clear communication and quick response capabilities. However, the aging infrastructure presents significant vulnerabilities. Efforts to address these hazards are further complicated by tunneling activities, which can lead to possible settlement issues, especially with older infrastructure. To mitigate these risks, there is an opportunity to enforce stringent building codes for new constructions, ensuring better resilience against geological threats.*
- The community's high elevation provides a natural advantage, reducing the overall flood risk. However, the combined sewer system and the presence of older buildings and basements pose significant vulnerabilities. These factors complicate effective flood management and mitigation efforts. To address these challenges, there is an opportunity to invest in stormwater improvement projects, enhancing the community's resilience to flooding.*
- In the face of severe weather, the community's strengths lie in effective communication and comprehensive hazard planning. However, financial constraints, aging infrastructure, and high population density present significant challenges. These factors complicate the implementation of robust mitigation strategies. To address these issues, there is an opportunity to enhance planning efforts, proactively monitor potential weather events, and establish response systems and community programs to improve resilience.*
- The community is well-prepared for severe winter weather with established extreme winter plans. However, the high population density and extensive network of sidewalks and roads present significant challenges. Limited space for salt storage and snow removal further complicates effective winter weather management. To address these issues, there is an opportunity to identify and utilize alternate snow disposal sites, enhancing the community's ability to manage severe winter conditions.*
- The community benefits from a robust emergency response system in the event of wildfires. However, the high population density increases susceptibility to smoke inhalation effects, and the municipality's limited infrastructure poses significant challenges. To address these issues, there is an opportunity to develop additional community programs aimed at enhancing preparedness and resilience against wildfires.*
- Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:
    - Determine where the damage occurred within the community and if the damaged structures are in an SFHA.
    - Determine what to use for “market value” and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.
    - Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure’s pre-damage value.
    - Require permits for floodplain development.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- Several critical facilities in the City lack backup power.
- The City does not track permits by hazard. Tracking permits by hazard area can ensure structures have lowered risk from potential hazards, such as flood, geological hazards and wildfires.

- Repave and replace curbs on 49th Street and Brown Street. 49th Street, and Brown Street require street paving and curb replacement to prevent urban flooding issues and damage from natural hazard events such as severe weather and severe winter weather.
- The City lacks climate change projection information.

* This issue was identified as a specific area of concern based on resident response to the Hudson County Hazard SWOO worksheet.

12.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

12.7.1 Past Mitigation Action Status

Table 12-17 indicates progress on the City's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

12.7.2 Additional Mitigation Efforts

In addition to the completed mitigation actions from the previous HMP, Union City identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

Table 12-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-City of Union City-001	Realignment of 33rd Street	All hazards	City Engineer	**Problem:** 33rd Street is an evacuation route but is not aligned to allow for safe and efficient evacuation. **Solution:** The City will conduct a traffic study/feasibility assessment to determine the best way to reduce evacuation times by realigning 33rd Street. The City will implement the identified design.	1.Ongoing 2. Ongoing review/feasibility study. Evacuation plan to be implemented.	1. Discontinue 2.N/A 3. City advised to not include.
2020-City of Union City-002	Retrofit City Hall and EMS buildings	Severe Weather, Sever Winter Storm, Coastal Storm	City Engineer	**Problem:** The roof on both City Hall and the EMS building have been damaged by storm events and are in need of replacement to protect critical functions. **Solution:** Replace roof on City Hall and EMS building and retrofit to strengthen each facility.	1.Complete 2. City Hall roof replaced in 2019. Repairs done to EMS building.	1.Discontinue 2.N/A 3. Action complete
2020-City of Union City-003	Installation of an emergency generators at critical facilities	All hazards	City Engineer	**Problem:** Critical facilities require backup power **Solution:** Installation generators at the following facilities: --City Hall -Emergency Medical Services Headquarters -Jose Martinez Freshman Academy -Bruce Walter School Recreation Center	1.In Progress 2. City Hall – generator installed EMS – Upgrades needed Jose Martinez Academy- upgrades needed Bruce Walter – Upcoming project	1.Include 2.Funding needed for further improvements 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-City of Union City-004	Emergency Services Unit vehicle	All hazards	Office of Emergency Management	**Problem:** The City requires an additional emergency services unit vehicle. **Solution:** Purchase an additional Emergency Services Unit vehicle that will be used for emergency response	1.Complete 2. Recently bid out for additional Emergency Service Unit vehicle	1.Discontinue 2.N/A 3. Action is complete
2020-City of Union City-005	GIS technology for Building Department	All hazards	Building Department	**Problem:** The GIS Department does not have the ability to track permits by hazards. **Solution:** Purchase GIS technology for Building Department and train staff.	1.No Progress 2. Funding needed	1.Include 2.No change 3. N/A
2020-City of Union City-006	Street paving and curb replacement	Severe Weather, Flood, and Severe Winter storm	City Engineer, Public Works	**Problem: 4**7th Street, 49th Street, and Brown Street require street paving and curb replacement to prevent urban flooding issues and damage from snow events. **Solution:** Repave and replace curbs on 47th Street, 49th Street, and Brown Street.	1.In Progress 2. 47th Street – Paved, 49th St/Brown St – Needs additional funding	1. Include 2.No change 3. N/A
2020-City of Union City-007	Climate change resources	All hazards	Administration	**Problem:** The City lacks climate change projection information. **Solution:** Assign point of contact to gather climate change materials from local universities and state agencies.	1.Ongoing 2. Post climate change information	1.Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-City of Union City-008	Update flood damage prevention ordinance	Flood	Administration	**Problem:** The current flood damage prevention ordinance does not include freeboard. **Solution:** The City will update the ordinance to include the state mandated freeboard requirement.	1. N/A 2. N/A	1.Discontinue 2. N/A 3. City indicated N/A

12.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Union City participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Union City would like to pursue in the future to reduce the effects of hazards. The actions 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 City priorities.

Table 12-18 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 12-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 12-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X	X			X	X				X
Drought	X	X			X					X
Extreme Temperatures	X	X			X					X
Flood	X	X			X	X			X	X
Geological Hazards	X	X			X					X
Severe Weather	X	X			X				X	X
Severe Winter Weather	X	X			X				X	X
Wildfire	X	X			X					X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 12-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-UnionCity-001	Comprehensive Infrastructure Upgrades	1	1	1	1	1	0	0	1	1	1	1	1	1	0	**11**	High
2025-UnionCity-002	Community Response Program – Drought	0	0	1	1	1	1	1	1	1	0	1	1	1	1	**11**	High
2025-UnionCity-003	Aging Infrastructure	1	1	1	1	1	0	0	0	1	0	1	1	1	0	**9**	Medium
2025-UnionCity-004	Community Cooling Initiative	1	0	1	1	1	1	1	1	1	0	1	1	0	0	**10**	Medium
2025-UnionCity-005	Stormwater Infrastructure Upgrades	1	1	1	1	1	0	0	1	1	1	1	1	1	0	**11**	High
2025-UnionCity-006	Enhance Planning Efforts	1	1	1	1	1	1	0	1	1	0	1	1	0	1	**11**	High
2025-UnionCity-007	Snow Removal	1	0	1	1	1	1	1	1	1	0	1	1	0	0	**10**	Medium
2025-UnionCity-008	Wildfire Preparedness and Resilience Enhancement Program	1	1	1	1	1	1	1	1	1	0	1	1	1	1	**13**	High
2025-UnionCity-009	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	**13**	High
2025-UnionCity-010	Critical Facilities Generators	1	1	1	1	1	1	0	1	1	1	1	1	1	1	**13**	High
2025-UnionCity-011	GIS Technology for Building Department	0	1	0	1	1	1	1	1	1	1	1	1	0	0	**10**	Medium
2025-UnionCity-012	Street Paving and Curb Replacement	0	1	1	1	1	0	1	0	1	1	1	1	1	0	**10**	Medium
2025-UnionCity-013	Critical Facilities Generators	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**14**	High

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

Action 2025-UnionCity-001. Comprehensive Infrastructure Upgrades

Lead Agency:	Building Department
Supporting Agencies:	Department of Public Works
Hazards of Concern:	Dam and Levee Failure, Flood
Description of the Problem:	In the event of a dam failure, the community's ability to respond swiftly and effectively is supported by strong emergency management protocols and clear communication channels. However, the aging infrastructure poses significant risks, and the response efforts are hindered by funding constraints and the complexities of regulatory and multi-agency agreements. To enhance resilience and mitigate future risks, there are opportunities to invest in stormwater improvements and sewer upgrades.
Description of the Solution:	To enhance the resilience of the community against potential dam failures, the City's Building Department with assistance from DPW will invest in comprehensive stormwater management and sewer system upgrade. This involves rehabilitating aging infrastructure to meet current safety standards, improving stormwater drainage systems to handle increased water flow during emergencies, upgrading sewer systems to prevent overflow and contamination during flood events, and enhancing emergency management protocols and communication channels for better coordination during a crisis.
Estimated Cost:	High
Potential Funding Sources:	HMGP, Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,6
Benefits:	By rehabilitating aging infrastructure and upgrading stormwater and sewer systems, the project significantly reduces the risk of flooding and infrastructure failure, thereby protecting lives and properties.
Impact on Socially Vulnerable Populations:	Improved infrastructure and emergency response will particularly benefit socially vulnerable populations who are often disproportionately affected by disasters.
Impact on Future Development:	By ensuring that infrastructure can handle future demands and climate impacts, the community can support sustainable growth and development.
Impact on Critical Facilities/Lifelines:	Critical facilities such as hospitals, schools, and emergency services will be better protected from flooding and infrastructure failures.
Impact on Capabilities:	Improved infrastructure and protocols will enhance the overall emergency management capabilities of the community.
Climate Change Considerations:	Upgrading infrastructure to handle extreme weather events and increased precipitation due to climate change will ensure long-term resilience
Mitigation Category	Structure and Infrastructure Project
CRS Category	Preventative Measures, Property Protection
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Temporary Flood Barriers	Short-term protection
	Building new dams/reservoirs	Extremely costly, and time consuming

Action 2025-UnionCity-002. Community Response Program – Drought

Lead Agency:	Administration
Supporting Agencies:	Office of Emergency Management
Hazards of Concern:	Drought
Description of the Problem:	In the face of drought, the community's strength lies in its robust communication and coordination efforts. However, the urban environment with limited green space exacerbates the challenges posed by high population density. These factors complicate effective drought management. To address these issues, there is an opportunity to develop comprehensive community response programs specifically designed to mitigate the impacts of drought.
Description of the Solution:	To mitigate the impacts of drought, it is essential to develop comprehensive community response programs. These programs should include implementing water conservation measures, such as restrictions on non-essential water use and promoting water-saving options. Additionally, enhancing green infrastructure by increasing urban green spaces and using drought-resistant landscaping can help reduce water demand. Improving public awareness and education on water conservation practices and the importance of sustainable water use is crucial.
Estimated Cost:	High
Potential Funding Sources:	Municipal budget
Implementation Timeline:	1-5 years
Goals Met:	3,4
Benefits:	Educating the community on the importance of water conservation and sustainable practices ensures a reliable water supply during drought conditions.
Impact on Socially Vulnerable Populations:	Socially vulnerable populations will learn how to prepare for and mitigate the impacts of drought through comprehensive community response programs.
Impact on Future Development:	Not Applicable
Impact on Critical Facilities/Lifelines:	Critical facilities such as hospitals and schools will be better informed on how to prepare for drought conditions and mitigate the risks associated with water scarcity.
Impact on Capabilities:	This action will build upon the community's existing public education and outreach programs, enhancing overall water management capabilities and preparedness for drought conditions.
Climate Change Considerations:	Implementing measures to conserve water and enhance green infrastructure will help the community adapt to the increasing frequency and severity of droughts due to climate change.
Mitigation Category	Local Plans and Regulations, Structure and Infrastructure Project, Education and Awareness
CRS Category	Preventative Measures, Public Information, Emergency Services
Priority	High

Alternatives

Action	Evaluation
No Action	-
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the City
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving guidance

Action 2025-UnionCity-003. Aging Infrastructure

Lead Agency:	Building Department
Supporting Agencies:	-
Hazards of Concern:	Geological Hazards
Description of the Problem:	In the event of geological hazards, the community benefits from strong communication and quick response capabilities facilitated by the building department. However, aging infrastructure poses significant risks, and financial constraints complicate its upkeep and structural integrity. Additionally, tunneling activities can lead to settlement issues, especially with older infrastructure.
Description of the Solution:	The City's Building Department will enhance communication pathways between the City and residents, rehabilitate aging infrastructure, and enforce stringent building codes for new constructions. This could include upgrading communication systems, conducting structural assessments to determine repairs needed, and implementing new building regulations to improve resilience against geological hazards.
Estimated Cost:	High
Potential Funding Sources:	HMGP
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,6,7
Benefits:	This action will enhance the resilience of the community to geological hazards.
Impact on Socially Vulnerable Populations:	This action prioritizes these communities by enhancing communication pathways, ensuring they receive critical updates and support during emergencies.
Impact on Future Development:	By enforcing stringent building codes, the City ensures that new constructions are resilient to geological hazards, promoting long-term sustainability.
Impact on Critical Facilities/Lifelines:	This action ensures critical facilities are protected and operational during geological events by upgrading infrastructure.
Impact on Capabilities:	This action aims to enhance the City's ability to protect residents and manage emergencies by upgrading communication systems for better coordination, rehabilitating infrastructure to reduce emergency service burdens, and enforcing new building codes to ensure structural resilience against geological hazards
Climate Change Considerations:	Climate change can exacerbate geological hazards, making it crucial to incorporate resilience into infrastructure planning. This solution addresses potential impacts by prioritizing the rehabilitation of aging infrastructure and enforcing building codes that account for climate-related risks.
Mitigation Category	Local Plans and Regulations, Structure and Infrastructure Project
CRS Category	Preventative Measures, Property Protection
Priority	Medium

Alternatives	**Action**	**Evaluation**
	No action	-
	Focus solely on new construction	This does not address aging infrastructure
	Temporary repairs	Short-term relief

Action 2025-UnionCity-004. Community Cooling Initiative

Lead Agency:	Administration
Supporting Agencies:	-
Hazards of Concern:	Extreme Temperature
Description of the Problem:	In the face of extreme temperatures, the community benefits from buildings equipped with air conditioning and shaded areas provided by trees and shade structures. However, the high population density increases the demand for these cooling resources. Efforts to expand shade and cooling infrastructure are hindered by limited space and funding constraints.
Description of the Solution:	The City's administration will install new shade structures and air conditioning in social spaces to enhance the community's resilience to extreme temperature conditions. Utilize rooftops and vertical spaces, repurpose underutilized areas, and incorporate energy-efficient systems.
Estimated Cost:	Medium
Potential Funding Sources:	Municipal Budget
Implementation Timeline:	1-5 Years
Goals Met:	1,7
Benefits:	The increased availability of cooling resources will reduce heat-related health issues and enhance community engagement and collaboration.
Impact on Socially Vulnerable Populations:	Provides cooling resources to high-traffic areas and vulnerable populations, reducing health disparities.
Impact on Future Development:	Encourages sustainable and innovative use of space, promoting green infrastructure.
Impact on Critical Facilities/Lifelines:	Ensures critical facilities are equipped with adequate cooling resources, maintaining operational efficiency during extreme heat events.
Impact on Capabilities:	Strengthens community capabilities in managing extreme heat and enhances overall resilience.
Climate Change Considerations:	Incorporates energy-efficient systems and native vegetation to mitigate the effects of climate change.
Mitigation Category	Structure and Infrastructure Project, Education and Awareness Programs
CRS Category	Property Protection, Public Information, Emergency Services
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Develop cooling centers in existing buildings	Costly, and may require extensive renovations
Promote the use of personal cooling devices	Temporary relief, but not a sustainable solution for prolonged extreme heat

Action 2025-UnionCity-005. Stormwater Infrastructure Upgrades

Lead Agency:	Department of Public Works	
Supporting Agencies:	Office of Emergency Management	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The community's high elevation provides a natural advantage, reducing the overall flood risk. However, the combined sewer system and the presence of older buildings and basements pose significant vulnerabilities. These factors complicate effective flood management and mitigation efforts.	
Description of the Solution:	The Department of Public Works (DPW) will evaluate the stormwater infrastructure to identify necessary improvements. Priority will be given to areas with high traffic, critical emergency response routes, and locations with recurring flooding issues. Potential mitigation measures include upsizing stormwater features and increasing drainage capacity. As improvements are implemented, the DPW and Office of Emergency Management (OEM) will monitor these areas to assess the effectiveness of the upgrades and determine if additional measures are needed.	
Estimated Cost:	High	
Potential Funding Sources:	HMGP, Municipal Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6	
Benefits:	Reduction in flood risk, stormwater flood damage, maintains emergency access.	
Impact on Socially Vulnerable Populations:	Improving stormwater infrastructure can significantly benefit socially vulnerable populations by reducing the risk of flooding in areas that are often disproportionately affected.	
Impact on Future Development:	Upgrading stormwater infrastructure can positively influence future development by making areas more resilient to flooding and other water-related issue.	
Impact on Critical Facilities/Lifelines:	Enhancing stormwater infrastructure is vital for protecting critical facilities and lifelines, such as hospitals, emergency response centers, and utilities.	
Impact on Capabilities:	Upgrading stormwater infrastructure can enhance the capabilities of local governments and emergency management agencies by providing them with more effective tools to manage and mitigate flooding.	
Climate Change Considerations:	Climate change is expected to increase the frequency and intensity of extreme weather events, making stormwater management even more critical. Infrastructure improvements should account for these changes by incorporating adaptive designs that can handle larger volumes of water and more intense storms.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Elevate properties	Costly and would not solve all flooding
	Buyout properties	Costly and would not solve all flooding

Action 2025-UnionCity-006. Enhance Planning Efforts

Lead Agency:	Administration
Supporting Agencies:	-
Hazards of Concern:	Severe Weather
Description of the Problem:	In the face of severe weather, the community's strengths lie in effective communication and comprehensive hazard planning. However, financial constraints, aging infrastructure, and high population density present significant challenges. These factors complicate the implementation of robust mitigation strategies.
Description of the Solution:	To address these issues, there is an opportunity to enhance planning efforts, proactively monitor potential weather events, and establish response systems and community programs to improve resilience. Developing and enhancing the public awareness program on hazards, prevention, and mitigation is crucial. This includes educating residents and businesses about storm mitigation, preparation, response, and recovery. Additionally, continuing to collaborate with Hudson County on their program that provides information to municipalities will further support these efforts.
Estimated Cost:	Low
Potential Funding Sources:	Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	5,6,7
Benefits:	This action will improve the current public education and outreach program in the City by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the City.
Impact on Socially Vulnerable Populations:	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards that may impact them in the City.
Impact on Future Development:	Not applicable
Impact on Critical Facilities/Lifelines:	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.
Impact on Capabilities:	This action would build upon the City's already existing public education and outreach program.
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 business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.
Mitigation Category	Education and Awareness Programs
CRS Category	Public Information
Priority	High

Alternatives

Action	Evaluation
No Action	-
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the City
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving guidance

Action 2025-UnionCity-007. Snow Removal

Lead Agency:	DPW	
Supporting Agencies:	OEM	
Hazards of Concern:	Severe Winter Weather	
Description of the Problem:	The community is well-prepared for severe winter weather with established extreme winter plans. However, the high population density and extensive network of sidewalks and roads present significant challenges. Limited space for salt storage and snow removal further complicates effective winter weather management.	
Description of the Solution:	To address these issues, there is an opportunity to improve the community's ability to manage severe winter conditions. Using snow fences or "living snow fences" (e.g., rows of trees or other vegetation) can help limit blowing and drifting snow over critical roadway segments and sidewalks. Installing roadway heating technology can prevent ice and snow buildup, making roads and sidewalks safer. Additionally, identifying and using alternate snow disposal sites will further support these efforts.	
Estimated Cost:	High	
Potential Funding Sources:	Municipal Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,6,7	
Benefits:	Safer roads and sidewalks during winter weather.	
Impact on Socially Vulnerable Populations:	Implementing snow fences and roadway heating technology can significantly improve safety and accessibility for socially vulnerable populations, such as the elderly, low-income families, and those with disabilities. These measures can reduce the risk of accidents and injuries caused by slippery conditions.	
Impact on Future Development:	Integrating these technologies into urban planning can promote sustainable development by reducing the need for frequent snow removal and minimizing environmental impacts.	
Impact on Critical Facilities/Lifelines:	Critical facilities such as hospitals, fire stations, and emergency services will benefit from reduced snow and ice accumulation, ensuring they remain accessible during severe winter conditions.	
Impact on Capabilities:	Snow fences and heated roadways can significantly enhance the safety of transportation networks, reducing the likelihood of accidents and improving overall traffic flow.	
Climate Change Considerations:	As climate change leads to more unpredictable weather patterns, implementing snow fences and heated roadways can help communities adapt to these changes by managing snow and ice more effectively.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Preventative Measures, Emergency Services	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Enhanced snow removal services – advanced equipment and training personnel	Higher cost due to increased labor and equipment usage
	Winter safety educational programs	Not sufficient enough to address severe winter conditions without changing physical measures

Action 2025-UnionCity-008. Wildfire Preparedness and Resilience Enhancement Program

Lead Agency:	Administration	
Supporting Agencies:	OEM	
Hazards of Concern:	Wildfire	
Description of the Problem:	The community benefits from a robust emergency response system in the event of wildfires. However, the high population density increases susceptibility to smoke inhalation effects, and the municipality's limited infrastructure poses significant challenges.	
Description of the Solution:	The City's Administration will develop and enhance the public awareness program on wildfire hazards, prevention, and mitigation. Collaborate with Hudson County on their program that provides information to municipalities. This initiative will educate residents and businesses about wildfire mitigation, preparation, response, and recovery, thereby improving community resilience and safety.	
Estimated Cost:	Low	
Potential Funding Sources:	Municipal Budget	
Implementation Timeline:	1-5 Years	
Goals Met:	1,2,4,5,7	
Benefits:	This action will improve the current public education and outreach program in the City by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the City.	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations will learn how to prepare for and mitigate the risks associated with wildfires, enhancing their safety and resilience.	
Impact on Future Development:	Not applicable	
Impact on Critical Facilities/Lifelines:	Businesses, which may be considered critical facilities or lifelines, will be better informed on how to prepare for wildfire emergencies and mitigate associated risks. This increased resilience will contribute to their continuity of operations during wildfire events.	
Impact on Capabilities:	This action will build upon the City's existing public education and outreach program, specifically enhancing its focus on wildfire preparedness and mitigation.	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of wildfires. This action will inform residents and business owners on how to reduce wildfire risks and understand how climate change may exacerbate these hazards.	
Mitigation Category	Education and Awareness Programs	
CRS Category	Public Information	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the City
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving guidance

Action 2025-UnionCity-009. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	OEM, DPW, Building Department
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
Description of the Solution:	The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 *Developing a Substantial Damage Management Plan* (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	3
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
Impact on Capabilities:	This action improves disaster recovery capabilities.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
Mitigation Category	Local Plans and Regulations
CRS Category	Emergency Services, Preventative Measure
Priority	High

Alternatives	Action	Evaluation
	No Action	-
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements

Action 2025-UnionCity-010. Critical Facilities - Generators

Lead Agency:	Engineering
Supporting Agencies:	-
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Several critical facilities in the City lack backup power.
Description of the Solution:	City Engineering will oversee the installation of powered generators and necessary electrical components to supply power to the following critical facilities: • Emergency Medical Services Headquarters • Jose Martinez Freshman Academy • Bruce Walter School Recreation Center Engineering will be responsible for maintenance and testing of the generators following installation.
Estimated Cost:	High
Potential Funding Sources:	HMGP, Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,6
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:	This action results in protection of a critical facility that could support future development.
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:	This action ensures continuity of operations to maintain capabilities.
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Microgrid	Costly and difficult to implement.
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-UnionCity-011. GIS Technology for Building Department

Lead Agency:	Building Department
Supporting Agencies:	-
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	The City does not track permits by hazard. Tracking permits by hazard area can ensure structures have lowered risk from potential hazards, such as flood, geological hazards and wildfires.
Description of the Solution:	The City will purchase GIS technology for the Building Department and will implement a permit tracking process and train staff.
Estimated Cost:	Medium
Potential Funding Sources:	Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	3,6
Benefits:	This action will allow all permits issued within the City to be tracked by hazard area.
Impact on Socially Vulnerable Populations:	This action may reduce the impacts of hazards to socially vulnerable populations by restricting the construction of structures which would have otherwise been utilized by these populations.
Impact on Future Development:	This action may lead to permits being restricted within various identified hazard areas in the City and municipal codes to be updated.
Impact on Critical Facilities/Lifelines:	This action will restrict the construction of structures in hazard areas which reduces the risk to first responders, as they will not have to enter hazardous areas to assist the general population.
Impact on Capabilities:	This action will enhance capabilities in the City.
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 City's ability to track structures located in hazard areas which may have conditions exacerbated by the impacts of climate change, such as floods and wildfires.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	Medium

Alternatives	**Action**	**Evaluation**
	No Action	-
	Track only flood development permits	Will align with NFIP requirements, but will not consider other hazard areas in the City
	Contract with a neighboring municipality to track permits	May not be feasible

Action 2025-UnionCity-012. Street Paving and Curb Replacement

Lead Agency:	City Engineer
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather, Severe Winter Weather
Description of the Problem:	Repave and replace curbs on 49th Street and Brown Street. 49th Street, and Brown Street require street paving and curb replacement to prevent urban flooding issues and damage from natural hazard events such as severe weather and severe winter weather.
Description of the Solution:	The City Engineer will repave and replace curbs on 49th Street and Brown Street to prevent urban flooding issues.
Estimated Cost:	Medium
Potential Funding Sources:	HMGP, Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	2
Benefits:	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.
Impact on Socially Vulnerable Populations:	This action will assist socially vulnerable populations whose properties are impacted by flooding along flood-prone roads.
Impact on Future Development:	Future development in the impacted area will be less likely to be flooded.
Impact on Critical Facilities/Lifelines:	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.
Impact on Capabilities:	Not Applicable
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.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Preventative Measures, Structural Flood Control Project
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Relocate all flood-prone road system	Not feasible
Raise all flood prone roads	Cost prohibitive

Action 2025-UnionCity-013. Climate Change Materials Collection

Lead Agency:	Administration
Supporting Agencies:	-
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	The City lacks climate change projection information.
Description of the Solution:	The City Administration will assign a point of contact to gather climate change materials from local universities and State agencies.
Estimated Cost:	Staff time
Potential Funding Sources:	Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	5,6,7
Benefits:	Improves the City's understanding of future climate risks, enabling more informed planning and decision-making.
Impact on Socially Vulnerable Populations:	Better climate data can guide targeted mitigation efforts for at-risk communities, though the action itself does not directly engage them.
Impact on Future Development:	Access to projections can inform zoning, building codes, and land use planning to reduce future risk.
Impact on Critical Facilities/Lifelines:	N/A
Impact on Capabilities:	Enhances the City's planning and coordination capacity by centralizing climate information and fostering partnerships.
Climate Change Considerations:	The action is specifically designed to address climate change by integrating scientific projections into local planning.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	High

Alternatives

Action	Evaluation
No Action	-
Relying on State and Federal Provided Data	Reactive approach, local specific information
Using only online public climate tools	General data, lack of local interpretation

13. TOWNSHIP OF WEEHAWKEN

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Weehawken with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Weehawken, describes who participated in the planning process, assesses Weehawken's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

13.1 Hazard Mitigation Planning Team

The Township of Weehawken identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Office of Emergency Management represented the community on the Hudson County HMP Planning Partnership and Steering Committee, and supported the local planning process 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.

Table 13-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 13-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Jeffrey Fulcher, Deputy Director, Weehawken DPS Address: 400 Park Avenue, Weehawken, NJ 07086 Phone Number: 201-319-6046 Email: jfulcher@police.weehawkennj.gov	Name/Title: Giovanni D. Ahmed, Township Manager Address: 400 Park Avenue, Weehawken, NJ 07086 Phone Number: 201-319-6005 Email: gahmad@tow-nj.net
National Flood Insurance Program Floodplain Administrator	
Name/Title: Frank Tattoli, Construction Code Official Address: 400 Park Avenue, Weehawken, NJ 07086 Phone Number: 201-319-6010 Email: franktattoli@tow-nj.net	
Additional Contributors	
Name/Title: Gio Ahmed, Business Administrator/Deputy Office of Emergency Management Coordinator Method of Participation: Participated in the planning process.	
Name/Title: Jeff Fulcher, Weehawken Police/Deputy Office of Emergency Management Coordinator Method of Participation: Participated in the planning process.	
Name/Title: Jeff Welz, Weehawken Police/ Office of Emergency Management Coordinator Method of Participation: Participated in the planning process.	

13.2 Community Profile

13.2.1 Brief History

Weehawken was formed as a township by an Act of the New Jersey Legislature on March 15, 1859, from portions of Hoboken and North Bergen. Weehawken, perched atop the Palisades along the Hudson River, has a rich history rooted in Lenape heritage, colonial settlement, and Revolutionary War activity. Known as the site of the famous 1804 duel between Alexander Hamilton and Aaron Burr, Weehawken later became a 19th-century transportation hub and summer retreat for New York's elite, blending natural beauty with historical significance (Insider NJ 2019).

13.2.2 Location

The Township of Weehawken is located in eastern Hudson County along the Hudson River. It shares its borders with West New York to the north, Hudson River to the east, City of Hoboken to the south and Union City to the west.

13.2.3 Governing Body Format

The Township is governed by a Council made up of five members. This governing body will be responsible for the adoption and implementation of this plan.

13.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for Weehawken was 17,197, a 31.2 percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 6.0 percent of the population is 5 years of age or younger, 11.9 percent is 65 years of age or older, 7.3 percent is non-English speaking, 7.3 percent is below the poverty threshold, and 6.2 percent is considered disabled.

13.2.4.1 ALICE in Hudson County

ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. While conditions have improved for some households, many continue to struggle, especially as wages fail to keep pace with the rising cost of household essentials (housing, child care, food, transportation, health care, and a basic smartphone plan). Households below the ALICE Threshold – ALICE households plus those in poverty – can't afford the essentials.

According to 2021 Point-in-Time-Data from ALICE, 24 percent of the 292,000 households in Hudson County are ALICE households (compared to the state average of 26 percent). The median household income in Hudson is $80,329, and

the County sees a labor force participation rate of 69 percent. Hudson County faces low household income compared to the state average of $89,296 and while the County does carry a 3 percent higher labor participation rate compared to state numbers, 15 percent of Hudson households live in poverty.

13.3 Jurisdictional Capability Assessment and Integration

Weehawken performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

13.3.1 Planning and Regulatory Capability and Integration

Table 13-2 summarizes the planning and regulatory tools that are available to Weehawken.

Table 13-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	Chapter 9	State and Local	Clerk and Zoning Board
How has or will this be integrated with the HMP and how does this reduce risk? State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14.				
Zoning/Land Use Code	Yes	Chapter 23	Local	Clerk and Zoning Board
How has or will this be integrated with the HMP and how does this reduce risk? Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49. Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Subdivision Code	Yes	Chapter 22	Local	Zoning Board
How has or will this be integrated with the HMP and how does this reduce risk? This integration ensures that future development is guided by hazard risk reduction principles, such as avoiding flood-prone areas, incorporating resilient infrastructure standards, and promoting sustainable land use. By embedding mitigation considerations into the subdivision code, the Township can reduce vulnerability to natural hazards, support safer growth, and enhance long-term community resilience.				
Site Plan Code	Yes	Chapter 9	Local and County	Zoning Board
How has or will this be integrated with the HMP and how does this reduce risk? This integration ensures that proposed developments are evaluated not only for zoning and design compliance but also for their exposure to natural hazards such as flooding, severe weather, and wildfire. By aligning site planning requirements with the HMP, the Township can promote resilient design practices, require hazard mitigation features (e.g., stormwater controls, elevation standards), and reduce long-term risk to people, property, and infrastructure.				
Stormwater Management Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

Growth Management	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Flood Damage Prevention Ordinance	Yes	Chapter 20	Federal, State, County and Local	Building Department
How has or will this be integrated with the HMP and how does this reduce risk? This integration ensures that local floodplain management regulations are aligned with current hazard data, best practices, and climate projections. By coordinating the ordinance with the HMP, the Township can strengthen development standards in flood-prone areas, reduce repetitive loss properties, and improve eligibility for federal programs such as the National Flood Insurance Program (NFIP) and Community Rating System (CRS).				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other: Shoreline Development	Yes	N.J.S.A. 13:19	State	State
How has or will this be integrated with the HMP and how does this reduce risk? Included as a mitigation action (2020-Weehawken-005) in the previous HMP. NJ Coastal Area Facility Review Act (N.J.S.A. 13:19) or CAFRA regulates almost all development along the coast for activities including construction, relocation, and enlargement of buildings or structures, and excavation, grading, shore protection structures, and site preparation. This law is implemented through NJ's Coastal Zone Management Rules N.J.A.C. 7:7E-1 et seq.				
PLANNING DOCUMENTS				
General/Comprehensive/Master Plan	Yes	Master Plan RE-Evaluation, 2003.	Local	Township Manager and the Planning Department
How has or will this be integrated with the HMP and how does this reduce risk? The 1991 Re-Examination report analyzed the 1976 Master Plan. A Land Use Plan was incorporated as an element in 1998 and identifies zoning specific to the waterfront and the steep slope areas of the Palisades.				
Capital Improvement Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	-	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years.				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

13.3.2 Development and Permitting Capability

Table 13-3 summarizes the capabilities of Weehawken to oversee and track development.

Table 13-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	Yes	The Building Department is responsible for issuing development permits.
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Township has a GIS system.
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	No	-
Describe the level of buildout in your jurisdiction.	N/A	

13.3.3 Administrative and Technical Capability

Table 13-4 summarizes potential staff and personnel resources available to Weehawken and their current responsibilities that contribute to hazard mitigation.

Table 13-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	Planning
Zoning Board of Adjustment	Yes	Zoning Board
Planning Department		Planning Department for the Township
Mitigation Planning Committee	Yes	Unofficially, Administration
Environmental Board/Commission	No	-
Open Space Board/Committee	Yes	Open Space Trust Fund Committee Weehawken's Department of Parks is responsible for the upkeep of the town's parks, ballfields, and playgrounds.
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	The Department of Public Works is responsible for: • Keeping town's streets, parks, and playgrounds clean • Clearing leaves and branches from sidewalks and streets • Sanitation/trach pick up • Removing snow and keeping roads clear Maintaining township buildings and grounds
Construction/Building/Code Enforcement Department	Yes	The Building Department is made up of the Construction Code Office, the Health Department, the Housing Inspection Office, as well as the fire, plumbing and electrical inspectors. This department also oversees the Park Avenue Partnership, which is dedicated to the revitalization of Park Avenue and the historic Water Tower.
Emergency Management/Public Safety Department	Yes	The Department of Public Safety is comprised of the Police Department, Fire Department, and First Aid Squad.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Stormwater, tree trimming near power lines in addition to PSEG doing their own trimming
Mutual aid agreements	Yes	May not be official but verbal agreements in place.
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	Human Resource
Other	Yes	The Weehawken Health Department has the responsibility to protect and promote the public health. It has the authority to adopt rules necessary for that purpose.
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Town Planner consultant Jill Hartmann Town Engineers Maser Consulting
Engineers or professionals trained in building or infrastructure construction practices	Yes	Town Engineers, Maser Consulting
Planners or engineers with an understanding of natural hazards	Yes	Town Engineers, Maser Consulting
Staff with expertise or training in benefit/cost analysis	Yes	CFO, Lisa Toscano

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Professionals trained in conducting damage assessments	Yes	Engineering Department and Building Department
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Township Manager
Staff that work with socially vulnerable populations or underserved communities	Yes	Township coordinates with homeless shelters in the a partnership.
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Town Engineers, Maser Consulting
Emergency manager	Yes	Jeff Welz, Public Safety Director
Grant writers	Yes	Consultants as needed
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	-	-

13.3.4 Fiscal Capability

Table 13-5 summarizes financial resources available to Weehawken.

Table 13-5. Fiscal Capabilities

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

13.3.5 Education and Outreach Capability

Table 13-6 summarizes the education and outreach resources available to Weehawken.

Table 13-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Township manager
Personnel skilled or trained in website development	Yes	Township manager
Hazard mitigation information available on your website	Yes	
Social media for hazard mitigation education and outreach	Yes	Currently use fliers, Facebook, Twitter, website, newsletters, mailings encourage signup for Swiftreach, includes reverse 911, email, text, etc.
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Currently use Facebook, Twitter, website, Swiftreach, includes reverse 911, email, text, etc.
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	Weehawken's Housing Authority provides 167 units of affordable senior citizens' housing, and manages 350 units of Section 8 subsidized housing for town residents. The Authority also runs one of the Town's two Senior Nutrition Centers as well as the Family Self Sufficient Program. Weehawken Township and the Recreation Department continue to provide a wide variety of free and low cost recreational programs to residents ages four and up. Weehawken provides services for senior citizen, including nutrition, transportation, social activities, and a "Keep In Touch" program which communicates with the homebound and the ill.
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Facebook, Twitter, Reverse 911 call system, mailings

13.3.6 Community Classifications

Table 13-7 summarizes classifications for community programs available to Weehawken.

Table 13-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	3	9/21/2015
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Sustainable Jersey	Yes	None	3/9/2011
Other: Organizations with mitigation focus (advocacy group, non-government)	N/A	-	-

N/A = Not applicable; — = Unavailable

13.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 13-8 summarizes the adaptive capacity for each identified hazard of concern and the Township'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 13-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Strong
Geological Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

13.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 13-1 is responsible for maintaining this information.

13.4.1 NFIP Statistics

Table 13-9 summarizes the NFIP policy and claim statistics for Weehawken.

13.4.2 Flood Vulnerability Summary

Table 13-10 provides a summary of the NFIP program in Weehawken.

Table 13-9. Weehawken NFIP Summary of Policy and Claim Statistics

# Policies	**633**
# Claims (Losses)	**110**
Total Loss Payments	**$7,537,473.53**
# Repetitive Loss Properties (NFIP definition)	**4**
# Repetitive Loss Properties (FMA definition)	**0**
# Severe Repetitive Loss Properties (NFIP definition)	**0**
# Severe Repetitive Loss Properties (FMA definition)	**0**

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2024

Table 13-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Hackensack Plank Road, Hudson Place
Do you maintain a list of properties that have been damaged by flooding?	Yes
Do you maintain a list of property owners interested in flood mitigation?	Yes
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Contracted support
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	None
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None at this time.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes

NFIP Topic	Comments
NFIP Compliance	
What local department is responsible for floodplain management?	Construction Code Official
Are any certified floodplain managers on staff in your jurisdiction?	Frank Tattoli
Do you have access to resources to determine possible future flooding conditions from climate change?	No
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Yes, training for OEM staff to become certified floodplain managers.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	The building department does not have capacity nor resources to provide a full-depth of NFIP administration services, these types of services would need to be contracted with an engineering firm.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Unknown.
What are the barriers to running an effective NFIP program in the community, if any?	Certified CFM and training for staff, building capacity for staff to run an effective program for the community.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	Unknown.
What is the local law number or municipal code of your flood damage prevention ordinance?	The Ordinance was adopted in 2006 with Appendix updates from the state and FEMA on flood zone and base flood elevation levels to be adjusted
What is the date that your flood damage prevention ordinance was last amended?	2018
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	No
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	Community is interested in joining CRS.

13.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 13-11 through Table 13-13.

Table 13-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2019				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2020				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2021				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2022				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2023				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 13-12. Recent Major Development and Infrastructure from 2017 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
No recent major development and infrastructure identified.					

** Only location-specific hazard zones or vulnerabilities identified.*

Table 13-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
No known or anticipated major development and infrastructure identified for the next five years.					

13.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Weehawken's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

13.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 13-1 through Figure 13-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Weehawken has significant exposure. The maps show the location of potential new development, where available.

Figure 13-1. Weehawken Hazard Area Extent and Location Map 1

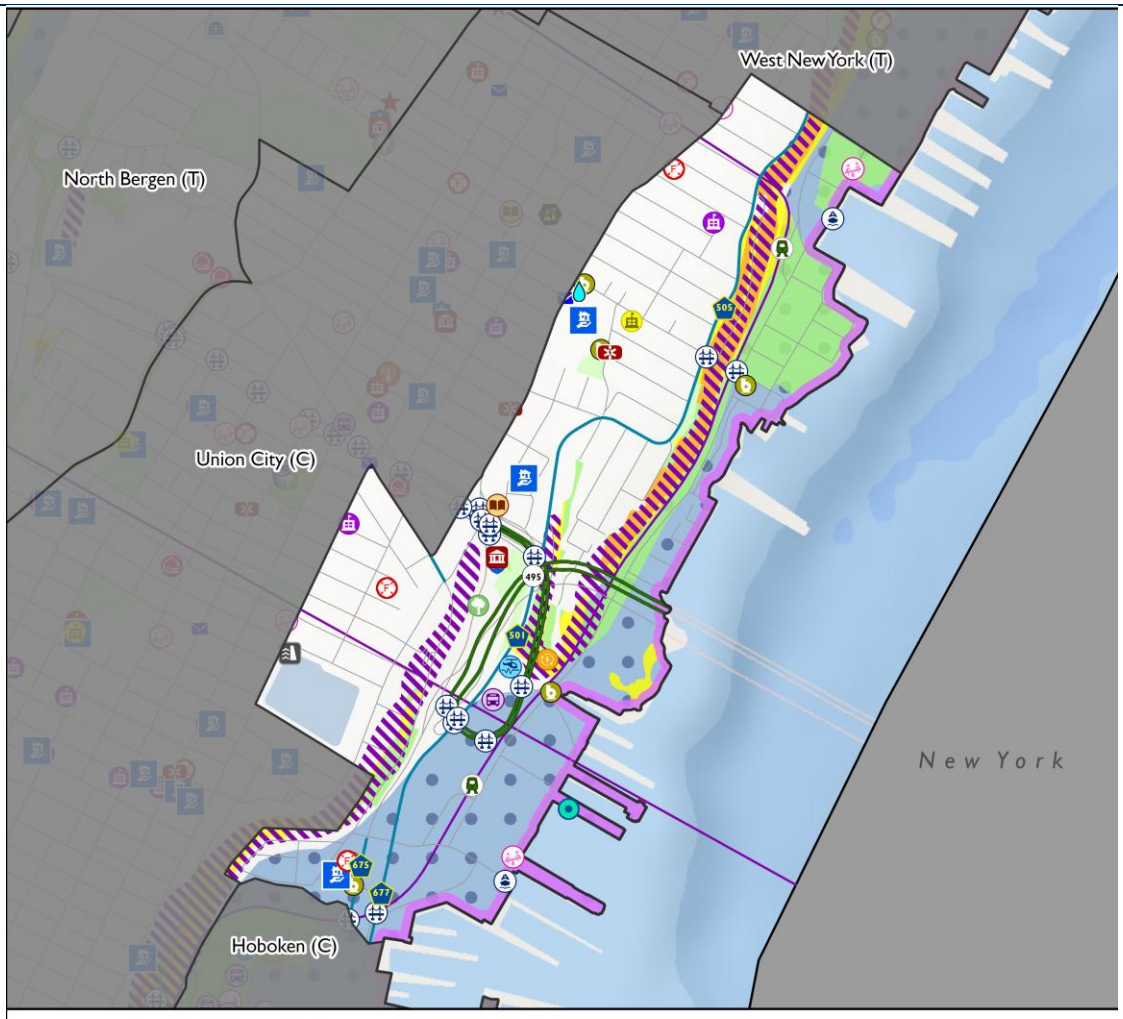


Figure 13-2. Weehawken Hazard Area Extent and Location Map 2

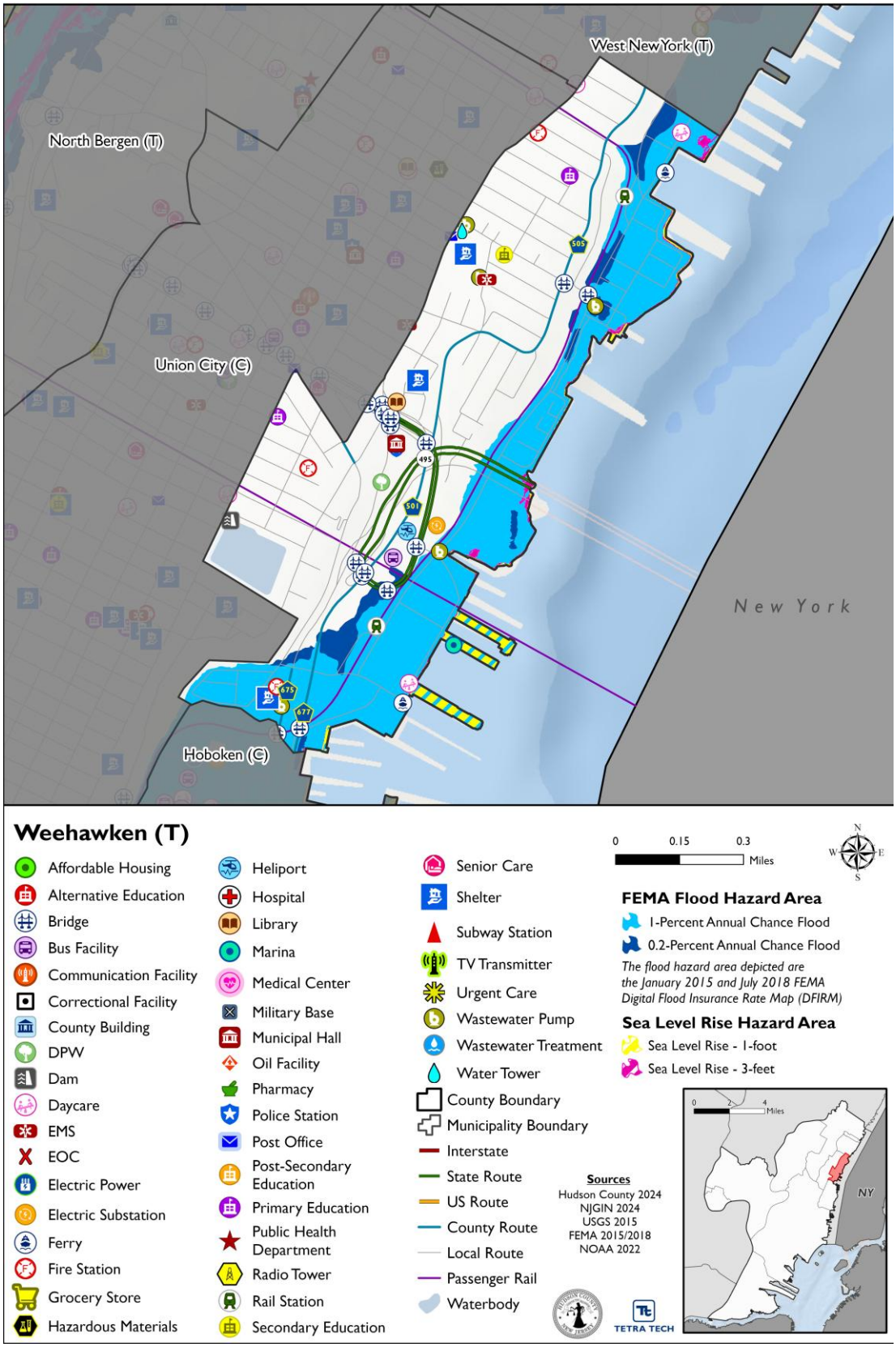
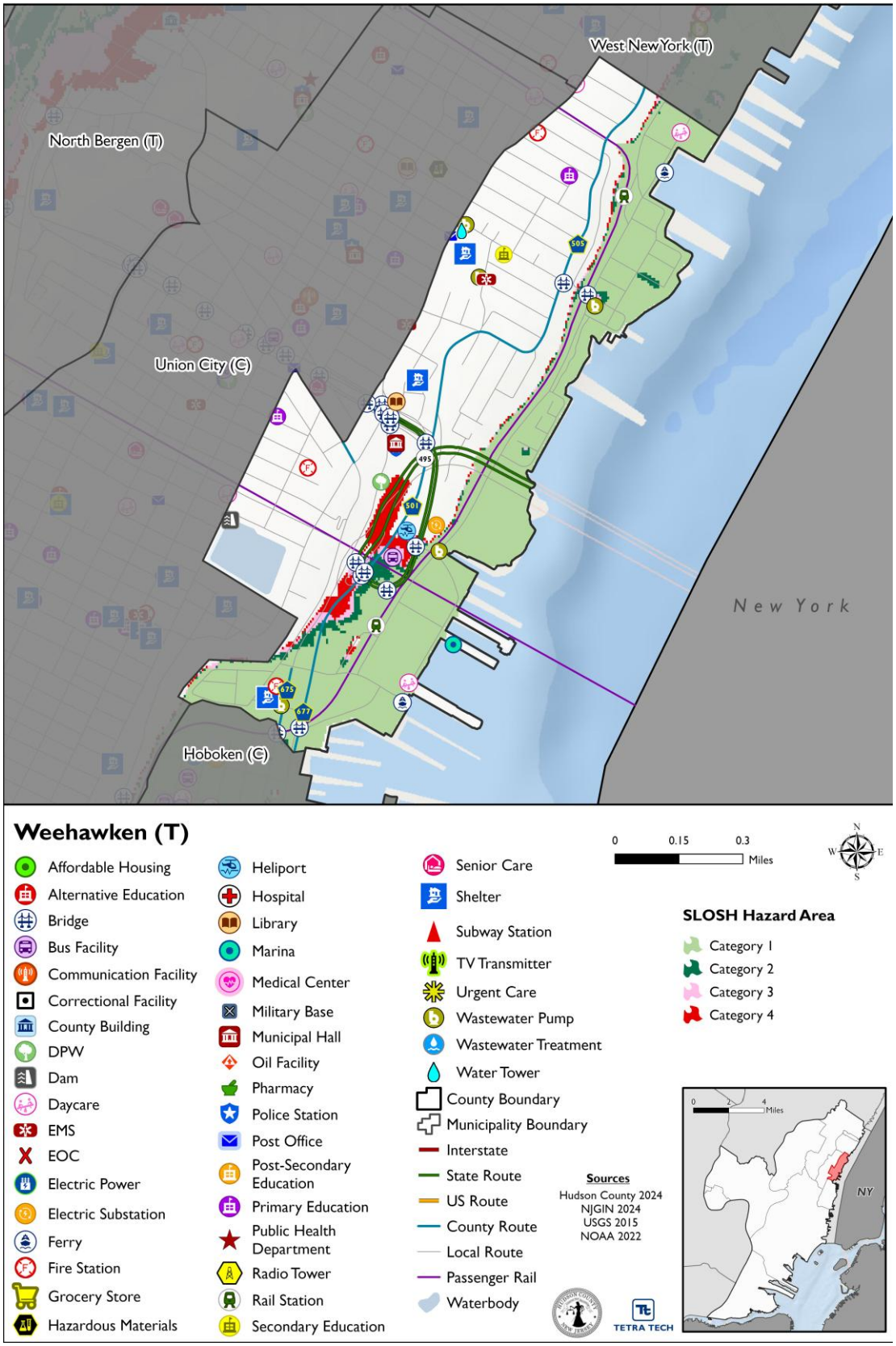


Figure 13-3. Weehawken Hazard Area Extent and Location Map 3



13.6.2 Hazard Event History

The history of natural and non-natural hazard events in Weehawken is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 13-14 provides details on loss and damage in Weehawken during hazard events since the last hazard mitigation plan update.

Table 13-14. Hazard Event History in Weehawken

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Weehawken
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	No physical damages reported at municipal level.
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	Localized flooding reported at several streets within Jersey City; flooded roadways and homes, fallen tree branches, power lines.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Weehawken
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	Widespread flooding reported at several streets within Jersey City; flooded roadways and homes, fallen tree branches, power lines.
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	Power outages reported

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

13.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Weehawken .

13.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. Weehawken reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the following:

- None identified

Table 13-15 shows Weehawken's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 13-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Low
Drought	Medium
Extreme Temperatures	Low
Flood	High
Geological Hazards	Low
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

13.6.3.2 Critical Facilities

Table 13-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Weehawken:

- Hackensack Res. #2 Dam

Table 13-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
Bright Horizons at Lincoln Harbor	Daycare	X	X
HBLR & Port Imperial Blv	Bridge	X	X
HUDS-BERG LR&HARBOR BLVD	Bridge	X	X
Lincoln Harbor	Marina	X	X
Lincoln Harbor Ferry Terminal	Ferry	X	X
Lincoln Harbor Station	Rail Station	X	X
NORTH HUDSON REGIONAL FIRE AND RESCUE ENGINE 3	Fire Station	X	X
North Hudson Sewerage - transfers Hob	Wastewater Pump	X	X
North Hudson Sewerage Authority	Wastewater Pump	X	X
Port Imperial Ferry Terminal	Ferry	X	X
Port Imperial Station	Rail Station	X	X
Sowing Seed School	Daycare	X	X
ST. LAWRENCE PARISH CENTER	Shelter	X	X
Bridge – NJ-495 – 3 Miles West of Lincoln Tunnel	Bridge	-	X

Source: Hudson County; HIFLD; NJGIN

13.6.4 Identified Issues

After review of Weehawken's hazard event history, hazard rankings, hazard location, and current capabilities, Weehawken identified the following vulnerabilities within the community:

- Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:
  - Determine where the damage occurred within the community and if the damaged structures are in an SFHA.
  - Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.
  - Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.
  - Require permits for floodplain development.

  The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- There are 2 repetitive loss properties in the Southwest part of the Township in the Shades area of town.
- The firehouse is in the 1% regulatory floodplain. During Sandy the equipment had to be relocated to provide continuity of services It is not determined if there is back up power, but this is a lifeline facility. Potentially this could be isolated from flooded roadways. This facility also houses rescue equipment.
- Hartz Industries and Mak-Cali own most of the shoreline, and 5 to 10 year master plans are submitted before development for approval, but the Town does not have shoreline planning.
- Many critical facilities within the Township are not municipally owned and are therefore outside the direct control of local authorities. These facilities are often unaware of their exposure to natural hazards, making them more vulnerable to damage during disasters and potentially disrupting essential services to the community.
- Numerous critical facilities within the Township are located in the 100-year floodplain and are not under Township ownership. As a result, these facilities may lack adequate flood protection and awareness of their risk, increasing the potential for service disruptions and damage during flood events.
- The Township lacks a stand-alone stormwater ordinance, which limits its ability to effectively manage runoff, reduce localized flooding, and enforce best practices in new development.
- The Daniel Webster School lacks backup power.

13.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

13.7.1 Past Mitigation Action Status

Table 13-17 indicates progress on the Township's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

13.7.2 Additional Mitigation Efforts

In addition to the completed mitigation actions from the previous HMP, Weehawken identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

Table 13-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Weehawken-001	Repetitive Loss Properties	Flood	Town Manager	**Problem:** There are 2 repetitive loss properties in the Southwest part of the Township in the Shades area of town. **Solution:** Elevate the properties. (Provide outreach to owners to determine if there is interest in a property elevation. Based on the feedback, if there is an interest submit application for funding). However, must determine if this property will be mitigated by the water diversion project. This project consists of a wall to prevent flooding to deflect the water in at risk areas.	1. In progress 2. Project is in conceptual design; Township has provided outreach to interested homeowners	1. Include 2. No Change 3. N/A
2020-Weehawken-002	Regional Firehouse Mitigation Project	Flood, Wildfire	North Hudson Regional Fire and Rescue with support from the Township.	**Problem:** The firehouse is in the 1% regulatory floodplain. During Sandy the equipment had to be relocated to provide continuity of services It is not determined if there is back up power, but this is a lifeline facility. Potentially this could be isolated from flooded roadways. This facility also houses rescue equipment. **Solution:** Since this is in a critical location, floodproof the facility to prevent ingress of flood waters and inundation of utilities.	1.In progress 2.Project is in progress but remains in conceptual design and planning due to limited capabilities and capacity as well as experiencing difficulty in finding funding for this project.	1. Include 2. No Change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Weehawken-003	Natural gas generator and automatic transfer switch for EMS and shelter building	All hazards	Office of Emergency Management, Managers Office	**Problem:** The EMS and shelter building lacks a generator and transfer switch. **Solution:** Purchase and install natural gas generator and automatic transfer switch for EMS and shelter building at 201 Highwood Ave and Webster School (shelter).	1. Complete 2. EMS generator project expected to be completed May 2025. High school generator project is complete.	1. Discontinue 2. N/A 3. Project Complete
2020-Weehawken-004	Develop stormwater ordinance	Flood, Severe storm	Administration	**Problem:** The Township lacks a stand alone stormwater ordinance. **Solution:** The Township will develop and adopt a stormwater ordinance.	1. In progress 2. The Township Administration is working with Code Ordinances to evaluate how to best update the flood ordinances for Weehawken.	1. Include 2. No Change 3. N/A
2020-Weehawken-005	Include hazard mitigation into shoreline development approval	Coastal Erosion and Sea Level Rise, Coastal Storm, Flood, Severe Storm, Winter Storm	Administration	**Problem:** Hartz Industries and Mak-Cali own most of the shoreline, and 5 to 10 year master plans are submitted before development for approval, but the town does not have shoreline planning. **Solution:** Develop and implement procedures to include hazard mitigation into shoreline development approval.	1.In progress 2.Hartz Industries continues to work on mitigation actions, Mak-Cali is no longer working on this mitigation action. Project is still in development.	1. Include 2. No Change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Weehawken-006	Conduct outreach to hazard prone critical facility operators	All hazards	OEM	**Problem:** Numerous critical facilities are not owned by the Township and are prone to hazard damages. **Solution:** The Township will conduct outreach to operators of critical facilities to educate them on their hazard exposure and possible mitigation actions.	1.In progress 2.Project remains ongoing, Township continues to conduct outreach for critical facilities owners.	1. Include 2. No Change 3. N/A
2020-Weehawken-007	Daniel Webster School generator	All hazards	Office of Emergency Management, Managers Office	**Problem:** The Daniel Webster School lacks backup power. **Solution:** Purchase and install a backup generator at the Daniel Webster School.	1. In Progress 2. Project has been delayed due to limited capacity and capability such as funding to complete project, scope is still being determine to determine load.	1. Include 2. No Change 3. N/A
2020-Weehawken-008	Update Police Building	Coastal Storm, Severe Weather, Severe Winter Weather	Police Department	**Problem:** The Police Building is outdated and prone to damage in storm events. Continued degradation of the facility could threaten continuity of operations. **Solution:** The Township will design a replacement structure and replace the existing Police Building with an updated and hazard resistant structure.	1. Complete 2. The Township has found a feasible facility to relocate Police Department infrastructure away from hazard risk.	1. Discontinue 2. N/A 3. Project Complete

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Weehawken-009	Critical facilities outreach	Flood	Floodplain Administrator	**Problem:** Numerous critical facilities are located in the 100-year floodplain. These facilities are not Township owned. **Solution:** The FPA will conduct outreach to facility managers to discuss flood exposure, current flood protections, and potential mitigation actions.	1.In progress 2.Township continues to provide outreach to facility managers and discuss viable mitigation alternatives.	1. Include 2. No Change 3. N/A

13.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Weehawken participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Weehawken would like to pursue in the future to reduce the effects of hazards. The actions 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 Township priorities.

Table 13-18 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 13-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 13-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X	X			X		X			X
Drought	X	X			X		X			X
Extreme Temperatures	X	X			X		X			X
Flood	X	X			X	X	X			X
Geological Hazards	X	X			X		X			X
Severe Weather	X	X			X	X	X			X
Severe Winter Weather	X	X			X		X			X
Wildfire	X	X			X	X	x			X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 13-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-Weehawken-001	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	**13**	**High**
2025-Weehawken-002	Repetitive Loss Properties	1	1	1	0	1	0	1	1	1	1	1	1	1	0	**11**	**High**
2025-Weehawken-003	Regional Firehouse Mitigation Project	1	1	1	1	1	0	0	0	1	1	1	1	1	1	**11**	**High**
2025-Weehawken-004	Hazard Mitigation into Shoreline Development	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**14**	**High**
2025-Weehawken-005	Critical Facilities Education and Outreach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**14**	**High**
2025-Weehawken-006	FPA Education and Outreach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**14**	**High**
2025-Weehawken-007	Stormwater Ordinance	0	1	1	1	1	1	1	0	1	1	1	1	0	1	**11**	**High**
2025-Weehawken-008	Daniel Webster School Generator	1	1	1	1	1	0	0	1	1	1	1	1	1	1	**12**	**High**

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

Action 2025-Weehawken-001. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	Borough OEM, Borough DPW
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
Description of the Solution:	The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 *Developing a Substantial Damage Management Plan* (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	3, 6
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
Impact on Capabilities:	This action improves disaster recovery capabilities.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
Mitigation Category	Local Plans and Regulations
CRS Category	Emergency Services, Preventative Measure
Priority	High

Alternatives	Action	Evaluation
	No Action	-
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements

Action 2025-Weehawken-002. Repetitive Loss Properties

Lead Agency:	Town Manager
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	There are 4 repetitive loss properties in the Southwest part of the Township in the Shades area of town.
Description of the Solution:	Elevate the properties. Provide outreach to owners to determine if there is interest in a property elevation. Based on the feedback, if there is an interest, submit an application for funding. However, must determine if this property will be mitigated by the water diversion project. This project consists of a wall to prevent flooding to deflect the water in at-risk areas.
Estimated Cost:	Medium
Potential Funding Sources:	FMA, HMGP, match from property owners
Implementation Timeline:	1-5 years
Goals Met:	1,2,7
Benefits:	Eliminates flood damage to homes and residents.
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:	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.
Impact on Critical Facilities/Lifelines:	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.
Impact on Capabilities:	Removing the risk from the immediate floodplain via acquisition of properties will free up resources for search and rescue and other emergency operations as needed.
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of severe rainfall, flash flooding, riverine flooding, and coastal flooding from sea level rise and storm surge events. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.
Mitigation Category	Structure and Infrastructure Project, Education and Awareness Program
CRS Category	Property Protection, Public Information
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Levee around floodplain	Costly, not enough room
	Deployable flood barriers	Requires deployment. Residents may not have adequate time to deploy, especially those who are elderly or disabled.

Action 2025-Weehawken-003.Regional Firehouse Mitigation Project

Lead Agency:	North Hudson Regional Fire and Rescue
Supporting Agencies:	Township Fire Department
Hazards of Concern:	Flood, Wildfire
Description of the Problem:	The firehouse is in the 1% regulatory floodplain. During Sandy the equipment had to be relocated to provide continuity of services It is not determined if there is back up power, but this is a lifeline facility. Potentially this could be isolated from flooded roadways. This facility also houses rescue equipment.
Description of the Solution:	Since this is in a critical location, floodproof the facility to prevent ingress of flood waters and inundation of utilities. The firehouse is in the 1% regulatory floodplain.
Estimated Cost:	Medium
Potential Funding Sources:	HMGP, Firefighter Assistance Grant Program
Implementation Timeline:	1-5 years
Goals Met:	1,2,7
Benefits:	This serves several thousand people. It is also backup to other firehouses in the region.
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders and emergency managers to maintain critical services that socially vulnerable populations rely on.
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.
Impact on Critical Facilities/Lifelines:	This action will protect the regional firehouse which is a critical facility, maintaining the critical services that it provides.
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.
Climate Change Considerations:	This action addresses anticipated increases in flooding frequency and severity through protection to the 1-percent annual chance) flood level.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services, Property Protection
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area
	Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.

Action 2025-Weehawken-004. Hazard Mitigation into Shoreline Development

Lead Agency:	Town Administration	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather, Severe Winter Weather	
Description of the Problem:	Hartz Industries and Mak-Cali own most of the shoreline, and 5 to 10 year master plans are submitted before development for approval, but the Town does not have shoreline planning.	
Description of the Solution:	Develop and implement procedures to include hazard mitigation into shoreline development approval	
Estimated Cost:	Low, Staff Time	
Potential Funding Sources:	Municipal Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6,7	
Benefits:	Hazard mitigation incorporation in shoreline development.	
Impact on Socially Vulnerable Populations:	Including hazard mitigation in shoreline planning helps protect vulnerable communities from coastal hazards and promotes equitable resilience.	
Impact on Future Development:	This action ensures future shoreline development is safer, more sustainable, and better adapted to long-term risks.	
Impact on Critical Facilities/Lifelines:	It reduces the risk to nearby critical infrastructure by discouraging development in high-risk coastal areas.	
Impact on Capabilities:	The Town will enhance its planning and review capabilities to support resilient shoreline development.	
Climate Change Considerations:	This action supports climate adaptation by addressing sea level rise and increasing storm impacts in development decisions.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Preventative Measure	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Rely on voluntary developer compliance	Not formal enforcement
	Wait for State or Federal guidelines	Delays needed local action

Action 2025-Weehawken-005. Critical Facilities Education and Outreach

Lead Agency:	Town OEM	
Supporting Agencies:	-	
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Many critical facilities within the Township are not municipally owned and are therefore outside the direct control of local authorities. These facilities are often unaware of their exposure to natural hazards, making them more vulnerable to damage during disasters and potentially disrupting essential services to the community.	
Description of the Solution:	The Township will conduct targeted outreach to operators of these critical facilities to educate them on their specific hazard exposures and inform them of practical mitigation actions. This proactive engagement will help reduce vulnerability, improve facility resilience, and strengthen overall community preparedness.	
Estimated Cost:	Staff Time	
Potential Funding Sources:	Municipal Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3,5,6	
Benefits:	This action increases awareness among facility operators, promotes proactive risk reduction, and strengthens the resilience of essential services that the community depends on during and after disasters.	
Impact on Socially Vulnerable Populations:	By improving the resilience of critical facilities such as healthcare centers, shelters, and utilities, this action helps ensure that vulnerable populations maintain access to essential services during emergencies.	
Impact on Future Development:	While not directly influencing new development, this action fosters a culture of risk awareness and may encourage future facility upgrades or relocations to safer areas.	
Impact on Critical Facilities/Lifelines:	This action directly enhances the safety and operational continuity of critical facilities and lifelines by equipping operators with the knowledge to implement effective mitigation strategies.	
Impact on Capabilities:	The Township will strengthen its outreach, coordination, and risk communication capabilities, building stronger partnerships with private and non-municipal facility operators.	
Climate Change Considerations:	As climate-related hazards intensify, this action ensures that facility operators are informed about evolving risks such as increased flooding, extreme temperatures, or severe weather, and can adapt accordingly.	
Mitigation Category	Education and Awareness Program	
CRS Category	Public Information	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Town
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving guidance

Action 2025-Weehawken-006. FPA Education and Outreach

Lead Agency:	Floodplain Administrator
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Numerous critical facilities within the Township are located in the 100-year floodplain and are not under Township ownership. As a result, these facilities may lack adequate flood protection and awareness of their risk, increasing the potential for service disruptions and damage during flood events.
Description of the Solution:	The Floodplain Administrator (FPA) will conduct targeted outreach to facility managers to discuss their flood exposure, assess existing protections, and recommend appropriate mitigation actions. This initiative will help reduce flood risk, improve facility resilience, and support the continuity of essential services during emergencies.
Estimated Cost:	Staff Time
Potential Funding Sources:	Municipal Budget, HMGP, FMA
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,5,6
Benefits:	This action raises awareness among facility managers about their flood risk and encourages the implementation of protective measures, which can reduce damage, service disruptions, and recovery costs during flood events.
Impact on Socially Vulnerable Populations:	By improving the resilience of critical facilities—such as healthcare, emergency shelters, and utilities—this action helps ensure that vulnerable populations retain access to essential services during and after flooding.
Impact on Future Development:	While it does not directly regulate new development, this outreach may influence future decisions by facility managers to retrofit, relocate, or design facilities with flood resilience in mind.
Impact on Critical Facilities/Lifelines:	This action directly supports the protection of critical facilities located in high-risk flood zones, helping to maintain continuity of operations and reduce the likelihood of cascading failures during disasters.
Impact on Capabilities:	The FPA will enhance its ability to engage with non-Township entities, build partnerships, and provide technical guidance, strengthening the overall emergency management network.
Climate Change Considerations:	As climate change increases the frequency and severity of flooding, this action ensures that facility managers are informed and prepared to adapt to evolving flood risks.
Mitigation Category	Education and Awareness Program
CRS Category	Public Information
Priority	High

Alternatives

Action	Evaluation
No Action	-
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Town
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving guidance

Action 2025-Weehawken-007. Stormwater Ordinance

Lead Agency:	Administration
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	The Township lacks a stand-alone stormwater ordinance, which limits its ability to effectively manage runoff, reduce localized flooding, and enforce best practices in new development.
Description of the Solution:	The Township will develop and adopt a comprehensive stormwater ordinance to regulate runoff, improve drainage infrastructure, and enhance resilience to flooding and severe weather. The Township Administration is working with Code Ordinances to evaluate how to best update the flood ordinances for Weehawken, ensuring alignment with current best practices and future climate conditions.
Estimated Cost:	Staff Time
Potential Funding Sources:	Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,3
Benefits:	Reduces flood risk and property damage
Impact on Socially Vulnerable Populations:	Reduces flood risk in underserved neighborhoods and ensures equitable infrastructure planning.
Impact on Future Development:	Ensures new development includes adequate stormwater controls and supports sustainable growth.
Impact on Critical Facilities/Lifelines:	Reduces flood risk to roads, utilities, and emergency access routes.
Impact on Capabilities:	Enhances regulatory and planning capabilities for stormwater and floodplain management.
Climate Change Considerations:	By incorporating future rainfall projections and green infrastructure requirements into the ordinance to address more intense and frequent storm events.
Mitigation Category	Local Plans and Regulations
CRS Category	Public Information
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Town
	Incorporate Stormwater Provisions into Existing Zoning Code	May lack the specificity and enforcement mechanisms

Action 2025-Weehawken-008. Daniel Webster School Generator

Lead Agency:	OEM	
Supporting Agencies:	Manager's Office	
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	The Daniel Webster School lacks backup power.	
Description of the Solution:	Purchase and install a backup generator at the Daniel Webster School.	
Estimated Cost:	Medium	
Potential Funding Sources:	FEMA HMGP, Municipal Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6,7	
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:	This action results in protection of a critical facility that could support future development.	
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:	This action ensures continuity of operations to maintain capabilities.	
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.	
Mitigation Category	Structure and Infrastructure Projects	
CRS Category	Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Microgrid	Costly and difficult to implement.
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

14. TOWN OF WEST NEW YORK

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Town of West New York with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of West New York, describes who participated in the planning process, assesses West New York's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

14.1 Hazard Mitigation Planning Team

The Town of West New York identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Town departments. The Office of Emergency Management represented the community on the Hudson County HMP Planning Partnership and Steering Committee and supported the local planning process 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.

Table 14-1 summarizes Town officials who participated in the development of the annex and in what capacity. Additional documentation of the Town's planning activities through Planning Partnership meetings is included in Volume I.

Table 14-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: William Bringas, Deputy Office of Emergency Management Coordinator, Emergency Medical Services Coordinator Address: 580 66th Street, West New York, NJ, 07093 Phone Number: 201-705-4972 Email: wbringas@westnewyorknj.org	Name/Title: Brian Velazquez, Deputy Office of Emergency Management Coordinator Address:428 60th Street, West New York, NJ, 07093 Phone Number: 201-496-9734 Email: bvelazquez@westnewyorknj.org
National Flood Insurance Program Floodplain Administrator	
Name/Title: Alvaro Gonzalez, Ph.D., P.E., Floodplain Administrator, Boswell Engineering Address: 330 Phillips Avenue South Hackensack, NJ 07606 Phone Number: 201-641-0770 Email: agonzalez@boswellengineering.com	
Additional Contributors	
Name/Title: William Bringas, Deputy Office of Emergency Management Coordinator, Emergency Medical Services Coordinator Method of Participation: Contributed to the planning process and provided updated information.	
Name/Title: Brian Velazquez, Deputy Office of Emergency Management Coordinator Method of Participation: Contributed to the planning process.	
Name/Title: Louis Cannao, Office of Emergency Management Coordinator Method of Participation: Participated in the planning process.	
Name/Title: Giselle Diaz, Town Engineer Method of Participation: Participated in the planning process.	

Name/Title: McKinley Mertz, Planning Method of Participation: Participated in the planning process.
Name/Title: Marileidys Baldeo, DPW Supervisor Method of Participation: Participated in the planning process.
Name/Title: Luis Baetz, Business Administrator Method of Participation: Participated in the planning process.
Name/Title: Thomas O'Malley, Construction Official Method of Participation: Participated in the planning process.
Name/Title: Adelinny Plaza, Town Clerk Method of Participation: Participated in the planning process.
Name/Title: Santiago Cabrera, Deputy Office of Emergency Management Coordinator Method of Participation: Participated in the planning process.

14.2 Community Profile

14.2.1 Brief History

West New York was incorporated as a town by an Act of the New Jersey Legislature on July 8, 1898, replacing Union Township, based on the results of a referendum held three days earlier. West New York's Urban Enterprise Zone covers portions of Bergenline Avenue from 49th to 67th Streets. In addition to other benefits to encourage employment within the Zone, shoppers can take advantage of a reduced 3½ percent sales tax rate (versus the 7 percent rate charged statewide).

14.2.2 Location

West New York is located at 40°47'18"N, 74°0'47"W (40.788400, -74.013090). According to the United States Census Bureau, the town has a total area of 1.3 square miles (3.4 km²), of which, 1.0 square miles (2.6 km²) of it is land and 0.3 square miles (0.8 km²) of it (23.48 percent) is water. West New York is a town in Hudson County, New Jersey, United States, situated upon the New Jersey Palisades. It shares its borders with the Town of Guttenberg to the north, the Hudson River to the east, Weehawken and Union City to the south and North Bergen to the west.

14.2.3 Governing Body Format

West New York has been governed under the Walsh Act by a five-member commission since 1931. This governing body will be responsible for the adoption and implementation of this plan.

14.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for West New York was 52,912, a 6.24 percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 4.5 percent of the population is 5 years of age or younger, 12.6 percent is 65 years of age or older, 24.5 percent is non-English speaking, 20.3 percent is below the poverty threshold, and 11.0 percent is considered disabled.

14.2.4.1 ALICE IN HUDSON COUNTY

ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level, but less than the basic cost of living for the County. While conditions have improved for some households, many continue to struggle, especially as wages fail to keep pace with the rising cost of household essentials (housing, child care, food, transportation, health care, and a basic smartphone plan). Households below the ALICE Threshold – ALICE households plus those in poverty – can't afford the essentials.

According to 2021 Point-in-Time-Data from ALICE, 24 percent of the 292,000 households in Hudson County are ALICE households (compared to the state average of 26 percent). The median household income in Hudson is $80,329, and the County sees a labor force participation rate of 69 percent. Hudson County faces low household income compared to the state average of $89,296 and while the County does carry a 3 percent higher labor participation rate compared to state numbers, 15 percent of Hudson households live in poverty.

14.3 Jurisdictional Capability Assessment and Integration

West New York performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

14.3.1 Planning and Regulatory Capability and Integration

Table 14-2 summarizes the planning and regulatory tools that are available to West New York.

Table 14-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	Chapter 135 Building Construction Standards	State and Local	New Jersey Department of Community Affairs (NJDCA)
How has or will this be integrated with the HMP and how does this reduce risk? State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14. There is hereby adopted in its entirety by the Mayor and Board of Commissioners of the Town of West New York the International Building Code 2018 (IBC NJ Edition), to be used for the maintenance of all buildings and structures of the Town of West New York. Said International Building Code 2018 (IBC NJ Edition) is to be administered by the Building Inspector of the Town of West New York.				
Zoning/Land Use Code	Yes	Chapter 414 Zoning	Local	Zoning Department
How has or will this be integrated with the HMP and how does this reduce risk? Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49. Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan. There is hereby established a comprehensive zoning plan for the Town of West New York, in the County of Hudson, hereinafter referred to as the "Town," which plan is set forth in the text, Zoning Map and Schedule of District Regulations that constitute this chapter. Said plan is adopted for the purposes set forth in Chapter 291 of the Laws of New Jersey 1975,[1] which, in the interest of the protection and promotion of the public health, safety and welfare, shall be deemed to specifically include the following among others: (1) To lessen congestion in the streets. (2) To secure safety from fire, panic and other dangers. (3) To promote health, morals or the general welfare. (4) To provide adequate light and air and open space. (5) To prevent the overcrowding of land or buildings. (6) To avoid undue concentration of population. (7) To protect the environment from deleterious uses of land. (8) To promote a desirable visual environment through creative development techniques and good civic design and arrangements. (9) To promote the conservation of open space and valuable natural resources and to prevent urban sprawl and degradation of the environment through improper use of land. (10) To provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of all New Jersey citizens. Such regulations were made with reasonable consideration, among other things, to the character of each district and its peculiar suitability to particular uses and with a view of conserving the value of property and encouraging the most appropriate use of land throughout the town.				
Subdivision Code	Yes	Chapter 235 Subdivision of Land	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of this chapter shall be to provide regulations and standards to guide land subdivision and its improvement in order to conserve and promote the public health, safety, convenience and general welfare of the Town of West New York. This chapter shall be administered to ensure the orderly growth and development, the conservation, protection and proper use of land and the provision of adequate circulation facilities, utilities and services.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Site Plan Code	Yes	Chapter 414 Zoning Article XVI General Development Plans	Local and County	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The Planning Board is hereby authorized to grant general development plan approval as provided in this article XVI and pursuant to the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq. The term "general development plan" means a comprehensive plan for the development of a planned development, including a controlled waterfront development under Article VI, as provided in this article. Any developer of a parcel of land greater than 100 acres in size, for which the developer is or shall be seeking approval of a planned development pursuant to the Municipal Land Use Law, may submit a general development plan to the Planning Board prior to the granting of preliminary site plan or major subdivision approval of that development by the Planning Board.				
Stormwater Management Code	Yes	Chapter 331 Sewers	Local	Engineering Department
How has or will this be integrated with the HMP and how does this reduce risk? Title 7 of the NJ Administrative Code (N.J.A.C. 7:8). This Wastewater Discharge Ordinance sets uniform requirements for discharges into the wastewater collection and treatment system and enables the West New York Municipal Utilities Authority to comply with applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards and any other discharge criteria which are required or authorized by state or federal law, and to derive the maximum public benefit by regulating the quality and quantity of wastewater discharged into these systems.				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?
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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

Growth Management	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

Environmental Protection Ordinance(s)	Yes	Chapter 204-16	Local	Administration

How has or will this be integrated with the HMP and how does this reduce risk?
The rules that are utilized by the NJDEP and other environmental agencies are codified at Title 7 of the NJ Municipal Administrative Code.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Flood Damage Prevention Ordinance	Yes	Chapter 204 Flood Damage Prevention	Federal, State, County and Local	Construction Official
How has or will this be integrated with the HMP and how does this reduce risk? The purposes and objectives of these regulations are to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific flood hazard areas through the establishment of comprehensive regulations for management of flood hazard areas, designed to: A. Protect human life and health. B. Prevent unnecessary disruption of commerce, access, and public service during times of flooding. C. Manage the alteration of natural floodplains, stream channels and shorelines. D. Manage filling, grading, dredging and other development which may increase flood damage or erosion potential. E. Prevent or regulate the construction of flood barriers which will divert floodwater or increase flood hazards. F. Contribute to improved construction techniques in the floodplain. G. Minimize damage to public and private facilities and utilities. H. Help maintain a stable tax base by providing for the sound use and development of flood hazard areas. I. Minimize the need for rescue and relief efforts associated with flooding. J. Ensure that property owners, occupants, and potential owners are aware of property located in flood hazard areas. K. Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events. L. Meet the requirements of the National Flood Insurance Program for community participation set forth in 44 CFR 59.22. The ordinance follows the model code coordinated ordinance from NJDEP.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive/Master Plan	Yes	Comprehensive Master Plan from 1960's (undated)	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The Plan is administered by the Planning Board. The Plan includes goals to protect natural resources, protect manmade resources, and improve mobility. Comprehensive Master Plan from 1960's (undated), Updated Population Report (August, 1975), Existing Uses of Land (October, 1975), Revised Land Use Plan (October, 1975), Community Facilities Analysis and Plan (November, 1975), Land Use Plan (November, 1978; Revised July 1, 1986), Housing Element (July, 1988), Recycling Plan Element (June, 1990), Master Plan Reexamination (2001). The Master Plan was last updated in 2015.				
Capital Improvement Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Stormwater Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Emergency Operation Plan. 2014	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years.				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

14.3.2 Development and Permitting Capability

Table 14-3 summarizes the capabilities of West New York to oversee and track development.

Table 14-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	Yes	Through Building Department.
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	No	-
Describe the level of buildout in your jurisdiction.	N/A	-

14.3.3 Administrative and Technical Capability

Table 14-4 summarizes potential staff and personnel resources available to West New York and their current responsibilities that contribute to hazard mitigation.

Table 14-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	The Planning Board is responsible for administering, updating and enforcing the Township's master plan which is a comprehensive, long-range plan intended to direct the community's growth and development. It also reviews all sub-divisions and site plans.
Zoning Board of Adjustment	Yes	Zoning Board
Planning Department	No	-
Mitigation Planning Committee	Yes	Safety Committee
Environmental Board/Commission	No	
Open Space Board/Committee	Yes	Recreation Department
Economic Development Commission/Committee	Yes	Urban Enterprise Zone Department
Public Works/Highway Department	Yes	Public Works The Parks & Public Property Department manages and operates 12 Town Parks, 3 Fields, and The Town Pool.
Construction/Building/Code Enforcement Department	Yes	The Building Department which encompasses Building, Zoning, Code Enforcement, and Housing works closely with residents, contractors, architects, engineers, developers, lawyers, realtors, banks and mortgage companies. The Department provides service and safety to the public while applying all codes and ordinances.
Emergency Management/Public Safety Department	Yes	OEM
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Department of Public Work is in charge of street cleaning.
Mutual aid agreements	Yes	EMS, Police, and Fire (verbal)
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	-	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Building Department/Outside Consultant – Town Engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	Building Department/Outside Consultant – Town Engineer
Planners or engineers with an understanding of natural hazards	Yes	Outside Consultant – Town Engineer
Staff with expertise or training in benefit/cost analysis	Yes	Town Administrator
Professionals trained in conducting damage assessments	No	-

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Outside Consultant – Town Engineer
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Outside Consultant – Town Engineer
Emergency manager	Yes	Office of Emergency Management, Lewis Cannao
Grant writers	Yes	Outside Consultant – Bruno Associates
Resilience Officer	No	
Other (this could include stormwater engineer, environmental specialist, etc.)	-	-

14.3.4 Fiscal Capability

Table 14-5 summarizes financial resources available to West New York.

Table 14-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement 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	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	-

14.3.5 Education and Outreach Capability

Table 14-6 summarizes the education and outreach resources available to West New York.

Table 14-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Mayor's Office is responsible for communication and public information.
Personnel skilled or trained in website development	Yes	IT
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	Yes	OEM
Citizen boards or commissions that address issues related to hazard mitigation	No	No, but planning to start a CERT Team.
Warning systems for hazard events	Yes	Siren, Nixle, Swift911, highway sign, social media, website
Natural disaster/safety programs in place for schools	Yes	School system
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	The Seniors Department offers services for medical transport, food and mall shopping, etc.
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	School system

14.3.6 Community Classifications

Table 14-7 summarizes classifications for community programs available to West New York.

Table 14-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Sustainable Jersey	Yes	Bronze	12/17/2020
Other: Organizations with mitigation focus (advocacy group, non-government)	-	-	-

N/A = Not applicable

— = Unavailable

14.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and

changing risk. Table 14-8 summarizes the adaptive capacity for each identified hazard of concern and the Town'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 14-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Strong
Geological Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

14.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 14-1 is responsible for maintaining this information.

14.4.1 NFIP Statistics

Table 14-9 summarizes the NFIP policy and claim statistics for West New York.

14.4.2 Flood Vulnerability Summary

Table 14-10 provides a summary of the NFIP program in West New York.

Table 14-9. West New York NFIP Summary of Policy and Claim Statistics

# Policies	**49**
# Claims (Losses)	**15**
Total Loss Payments	**$2,477,495.63**
# Repetitive Loss Properties (NFIP definition)	**1**
# Repetitive Loss Properties (FMA definition)	**0**
# Severe Repetitive Loss Properties (NFIP definition)	**0**
# Severe Repetitive Loss Properties (FMA definition)	**0**

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over $5,000 each, and the cumulative amount of such claims payments exceeds $20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA 2024

Table 14-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Waterfront area during high tides and heavy rain events, creates occasional flooding. Flooding can come up to River Rd (major roadway for the Town), housing development, and critical facility. Verizon has a substation in the area as well potentially impacted by the flooding.
Do you maintain a list of properties that have been damaged by flooding?	Yes
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	N/A
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Town defers to County on Substantial Damage determinations.
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	None
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes

NFIP Topic	Comments
NFIP Compliance	
What local department is responsible for floodplain management?	OEM but this is contracted out to Boswell Engineering
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	No
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Yes, training for OEM staff to become certified floodplain managers.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	The OEM department does not have capacity nor resources to provide a full-depth of NFIP administration services, these types of services would need to be contracted with an engineering firm.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Unknown.
What are the barriers to running an effective NFIP program in the community, if any?	Certified CFM and training for staff, building capacity for staff to run an effective program for the community.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	Unknown.
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 204 Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	2006
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	No
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	Community is interested in joining CRS.

14.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 14-11 through Table 14-13.

Table 14-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2019				
Total Permits	0	5	0	5
Permits within SFHA	0	0	0	0
2020				
Total Permits	2	7	1	10
Permits within SFHA	0	0	0	0
2021				
Total Permits	0	5	0	5
Permits within SFHA	0	0	0	0
2022				
Total Permits	0	9	0	9
Permits within SFHA	0	0	0	0
2023				
Total Permits	0	2	0	2
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 14-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
-	Multi-Family	9	6108 Hudson Ave	-	-
-	Multi-Family	3	6612 B Lincoln Pl	-	-
-	Multi-Family	3	6612 A Lincoln Pl	-	-
-	Multi-Family	3	412 66th Street	-	-
-	Multi-Family	26	529-533 61st St	-	-
-	Single Family	1	409 55th St	-	-
-	Single Family	1	411 55th St	-	-
-	Multi-Family	3	6113 Buchanan Pl	-	-
-	Multi-Family	3	5215 Jefferson St	-	-
-	Multi-Family	3	574 56th St	-	-
-	Multi-Family	3	6009 Jefferson St	-	-
-	Multi-Family	2	556 57th St	-	-
-	Multi-Family	6	6041 Highland Pl	-	-
-	Multi-Family	11	6000-02 Jefferson St	-	-

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
-	Multi-Family/Commercial	97 res units/ 4 commercial units	4901 Bergenline Ave	-	-
-	Single or Multi-Family	1	604 54th St	-	-
-	Commercial	1	511-523 52nd St	-	-
-	Multi-Family	48	6116-24 Harrison	-	-
-	Multi-Family	156	508 51st St	-	-
-	Multi-Family	3	6108 Fillmore Place	-	-
-	Multi-Family	3	6110 Fillmore Place	-	-
-	Multi-Family	2	6311 Polk St	-	-
-	Multi-Family	2	6114 Jefferson St	-	-
-	Multi-Family	3	6116 Jefferson St	-	-
-	Multi-Family	18	582-586 66th St	-	-
-	Multi-Family	156	511 & 513 52nd St	-	-
-	Multi-Family	3	6118 Jefferson St	-	-
-	Commercial	1	428 58th St	-	-
-	Multi-Family	10	6111 Palisades Ave	-	-
-	Multi-Family	12	304 61st St	-	-
-	Multi-Family	3	566 57th St	-	-
-	Multi-Family	12	6123-6129 Park Ave	-	-
-	Multi-Family	2	6211 Adams St	-	-
-	Multi-Family	73	8 Ave at Port Imperial	-	-

** Only location-specific hazard zones or vulnerabilities identified.*

Table 14-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

14.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of West New York's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

14.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Town are shown in Figure 14-1 through Figure 14-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which West New York has significant exposure. The maps show the location of potential new development, where available.

Figure 14-1. West New York Hazard Area Extent and Location Map 1

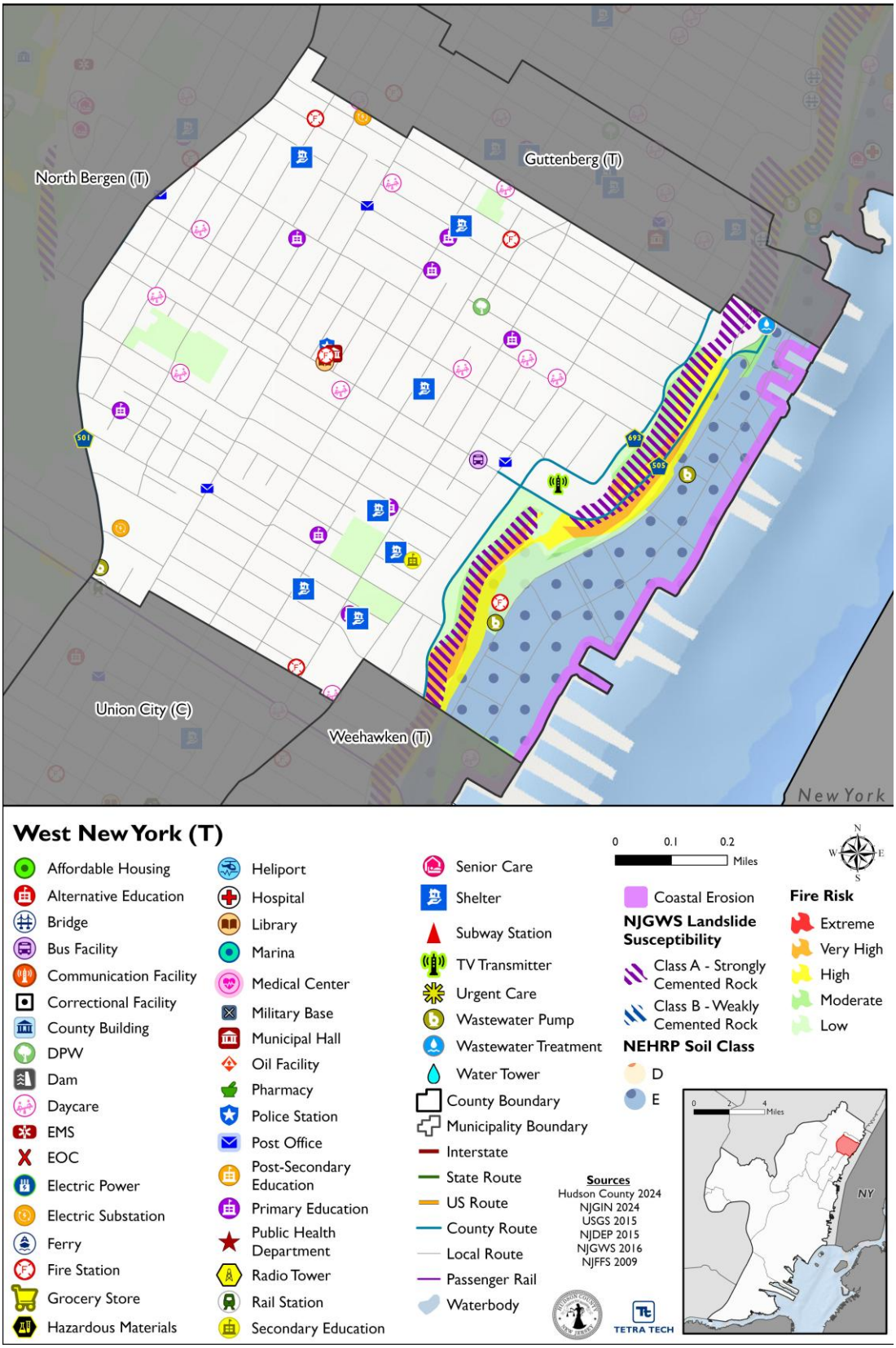


Figure 14-2. West New York Hazard Area Extent and Location Map 2

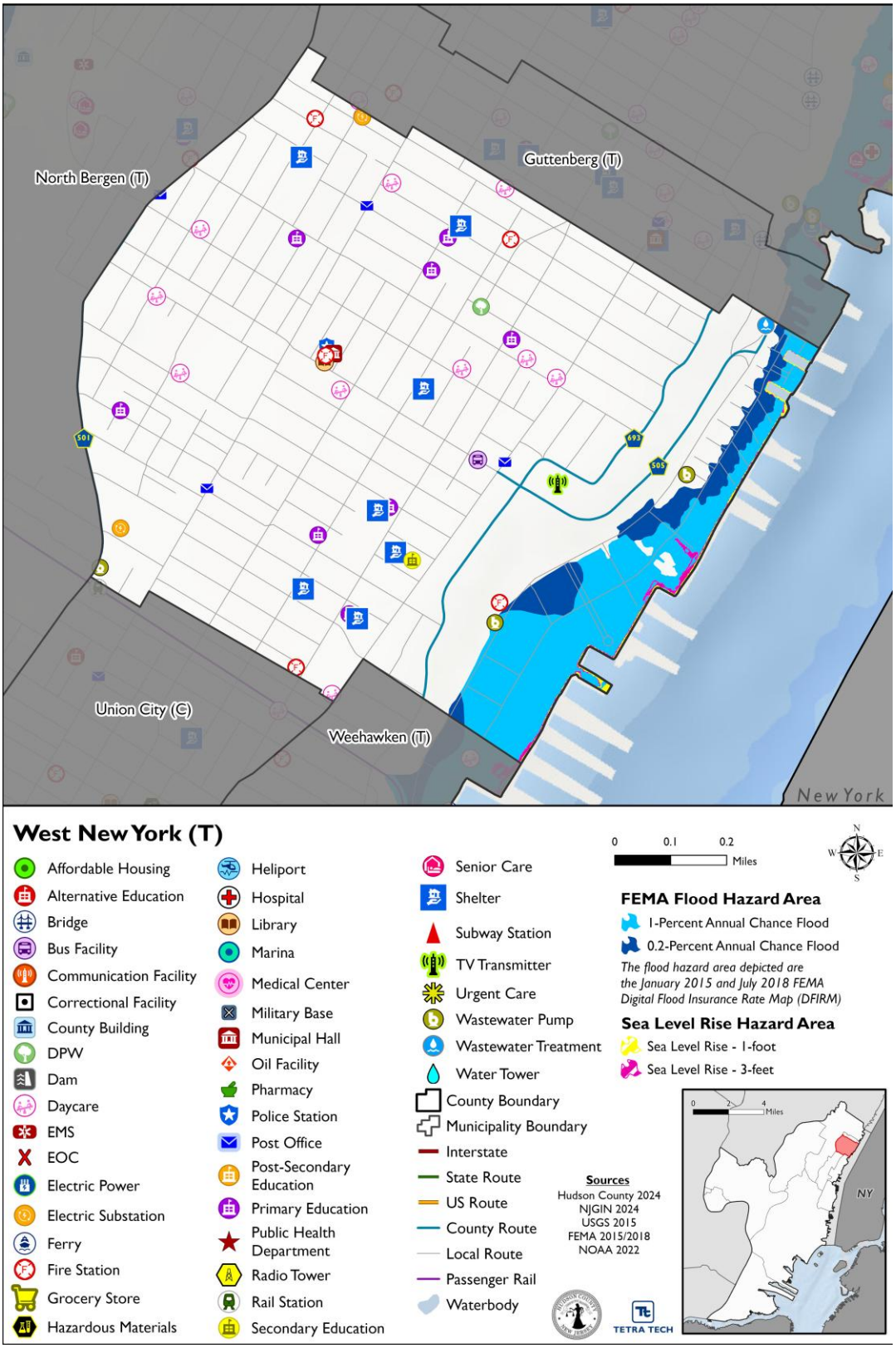
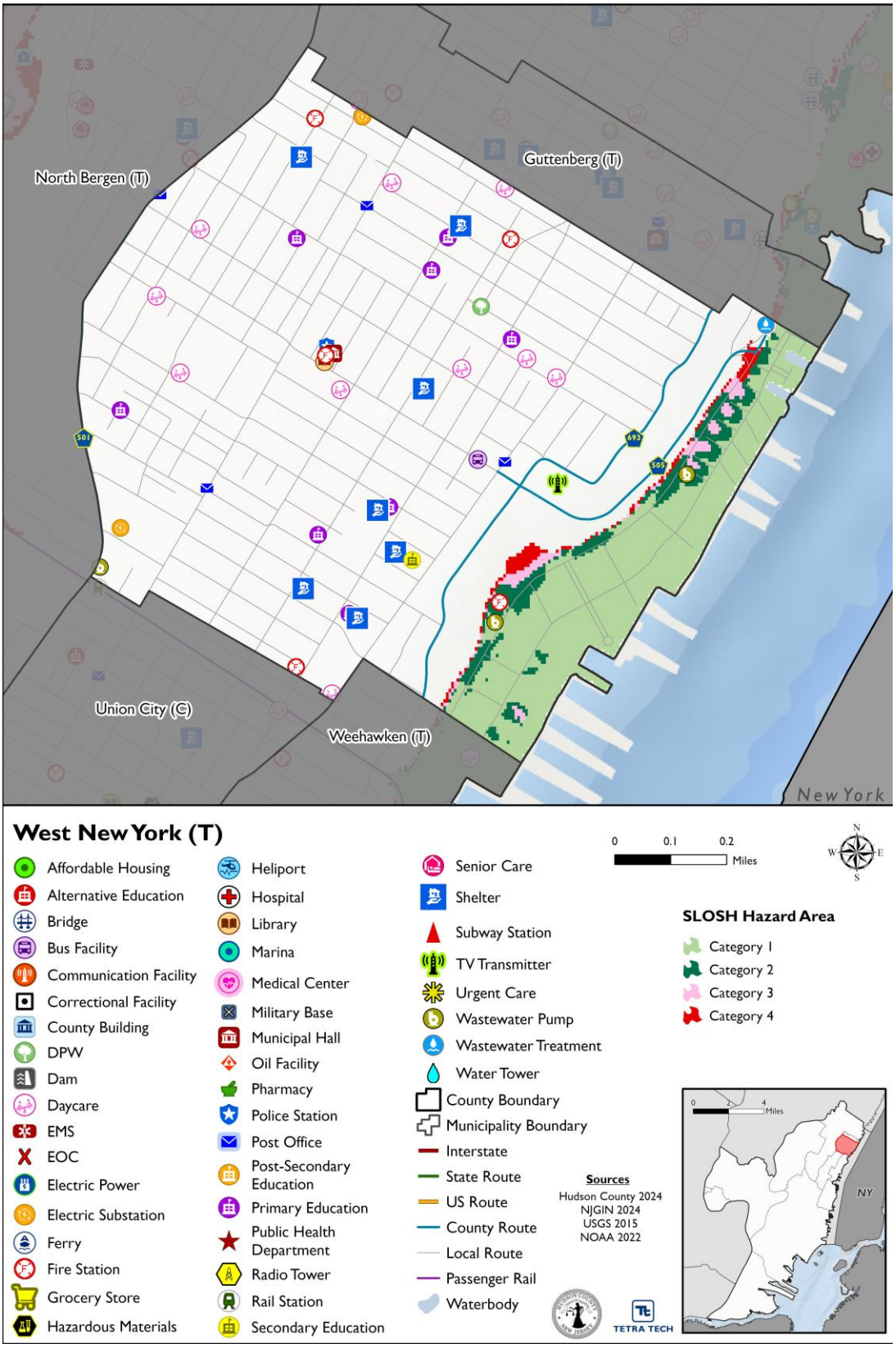


Figure 14-3. West New York Hazard Area Extent and Location Map 3



14.6.2 Hazard Event History

The history of natural and non-natural hazard events in West New York is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 14-14 provides details on loss and damage in West New York during hazard events since the last hazard mitigation plan update.

Table 14-14. Hazard Event History in West New York

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in West New York
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	No physical damages reported at municipal level.
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	Localized flooding reported at several streets within West New York; flooded roadways and homes, fallen tree branches, power lines.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	Widespread flooding reported at several streets within West New York; flooded roadways and homes, fallen tree branches, power lines.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in West New York
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	Power outages reported

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

14.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for West New York .

14.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. West New York reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Town indicated the following:

- Flood was ranked medium but Town has updated to high due to flooding at the Waterfront during high tide which can impact major roadway (River Rd) and critical facilities in the Town.
- Wildfire was ranked low but Town has updated to Medium. The cliffs between River Rd and Boulevard East have many dry brushes that are a concern for wildfire. The area has a camp of homeless people that are at risk for this hazard.

Table 14-15 shows West New York's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 14-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Low
Drought	Medium
Extreme Temperatures	Low
Flood	High
Geological Hazards	Low
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Medium

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

14.6.3.2 Critical Facilities

Table 14-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains. In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in West New York:

- None identified

Table 14-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
NHSA - Port Imperial 1 - Boulevard PS	Wastewater Pump	X	X

Source: Hudson County; HIFLD; NJGIN

14.6.4 Identified Issues

After review of West New York's hazard event history, hazard rankings, hazard location, and current capabilities, West New York identified the following vulnerabilities within the community:

- The radio communications building near the 11th Avenue port is being upgraded to handle radio communications in the area. It is in a location that is prone to flooding but is the only location available for this use.
- There is possible wildfire risk to the areas between Kennedy Boulevard East and River Road and at Donnelly Memorial Park. Small fires have happened in this area in the past due to human causes (small fires, cigarette butts, etc.). A larger fire under dry and windy conditions may impact buildings surrounding the area.
- Parking garages near the waterfront have been flooded and resulted in damaged vehicles.
- The Town lacks a CERT Team.
- Public Buildings lack external emergency lighting.

- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.
- The Town has one repetitive loss property.
- PS #5 is a sheltering location. The School lacks a backup power source.
- The High School is a sheltering location. The School's two backup generators need replacement.
- Freshman Academy is a sheltering location but lacks a backup power source.
- PS #6 is a sheltering location. The backup generator is in need of replacement.
- The Housing Building on 50th & Palisade is a warming and cooling shelter but lacks a backup power source.
- Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:
    - Determine where the damage occurred within the community and if the damaged structures are in an SFHA.
    - Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.
    - Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.
    - Require permits for floodplain development.

  The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.

14.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

14.7.1 Past Mitigation Action Status

Table 14-17 indicates progress on the Town's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

Table 14-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-West New York-001	Radio Communications Building	Flood, Severe Weather, Severe Winter Storm	OEM	Problem: The radio communications building near the 11th Avenue port is being upgraded to handle radio communications in the area. It is in a location that is prone to flooding but is the only location available for this use. Solution: Critical infrastructure in the building will be elevated above the 500-year flood level. A generator will be installed above the 500-year flood level.	1.In progress 2.Project is currently in conceptual design and identifying funding mechanisms for the mitigation action.	1. Include 2.No Change 3. N/A
2020-West New York-002	Brushfire Mitigation	Wildfire	OEM	Problem: There is possible wildfire risk to the areas between Kennedy Boulevard East and River Road and at Donnelly Memorial Park. Small fires have happened in this area in the past due to human causes (small fires, cigarette butts, etc.). A larger fire under dry and windy conditions may impact buildings surrounding the area. Solution: The Town will conduct a feasibility assessment to determine what level of wildfire risk exists. Actions identified will be implemented. Possible actions include vegetation management, prescribed burning or removal of wildfire fuel, clearing vegetation near buildings to provide a buffer zone, etc.	1.In Progress 2.The Town is currently evaluating funding opportunities and determine scope of work for this feasibility study. Project is still in development.	1. Include 2.No Change 3. N/A
2020-West New York-003	Pre-flood plan for parking garages	Flood	Public Safety	Problem: Parking garages near the waterfront have been flooded and resulted in damaged vehicles. Solution: The Town will develop a pre-flood plan with messaging to remove cars from flood prone parking garages.	1.In Progress 2.The Town is currently evaluating funding opportunities and scope of work for this planning study. Project is still in development.	1. Include 2.No Change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-West New York-004	CERT Team	All Hazards	OEM, Public Safety	Problem: The Town lacks a CERT team. Solution: Improve capacity of overall emergency response by establishing and training a Citizen Emergency Response Team	1.In progress 2.The project has been delayed due to limited capacity and capabilities for the Town and OEM office, OEM office is currently identifying funding sources for this action.	1. Include 2.No Change 3. N/A
2020-West New York-005	Emergency Lighting for Public Buildings	Coastal Storm, Earthquake, Severe Weather, Severe Winter Storm, Flood	OEM, Public Safety	Problem: Public Buildings lack external emergency lighting. Solution: Install permanent emergency lighting on the outside of public buildings.	1.In progress 2.The Town is currently evaluating funding opportunities and scope of work for this project. Project is still in development	1. Include 2.No Change 3. N/A
2020-West New York-006	Update Flood Damage Prevention Ordinance	Flood	Administration, Building Dept	Problem: The Flood Damage Prevention Ordinance lacks the state required 1-foot freeboard. Solution: Update the Flood Damage Prevention Ordinance to current NJ DEP requirements.	1.In progress 2.Currently this project is being evaluated on how to update the Town's flood damage prevention ordinance. The Town's limited capacity and capability without a designated FPM has delayed this project.	1. Include 2.No Change 3. N/A
2020-West New York-007	Mitigate flood-prone properties, including RL/SRL property	Flood	FPA	Problem: The Town has one repetitive loss property Solution: Conduct outreach to 10 flood-prone property owners, including the RL/SRL property owner and provide information on mitigation alternatives.	1. In progress 2. The Town continues to perform outreach to flood prone property owners to acquire properties and provide mitigation alternatives.	1. Include 2.No Change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-West New York-008	Backup generator for PS #5	All hazards	School Board, OEM, Engineer	Problem: PS #5 is a sheltering location. The School lacks a backup power source. Solution: The Town Engineer will research what size generator is necessary to supply backup power to the school. The town will then work with the school to purchase and install a generator at the school.	1. In progress 2. Project is in conceptual design and identifying funding mechanisms to fund the activity. The School Board is actively working on the specifications and sizing for backup generator to ensure reliable power for the critical facility identified. This initiative aims to enhance the resilience and preparedness of our community.	1. Include 2.No Change 3. N/A
2020-West New York-009	Replace backup generators at the High School	All hazards	School Board, OEM, Engineer	Problem: The High School is a sheltering location. The School's two backup generators need replacement. Solution: The Town will work with the school to purchase and install replacement generators at the school.	1. In progress 2. Project is in conceptual design and identifying funding mechanisms to fund the activity. The School Board is actively working on the specifications and sizing for backup generator to ensure reliable power for the critical facility identified. This initiative aims to enhance the resilience and preparedness of our community.	1. Include 2.No Change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-West New York-010	Backup generator for Freshman Academy	All hazards	School Board, OEM, Engineer	Problem: Freshman Academy is a sheltering location but lacks a backup power source. Solution: The Town Engineer will research what size generator is necessary to supply backup power to the school. The town will then work with the school to purchase and install a generator at the school.	1. In progress 2. Project is in conceptual design and identifying funding mechanisms to fund the activity. The School Board is actively working on the specifications and sizing for backup generator to ensure reliable power for the critical facility identified. This initiative aims to enhance the resilience and preparedness of our community.	1. Include 2.No Change 3. N/A
2020-West New York-011	Backup generator for PS #6	All hazards	School Board, OEM, Engineer	Problem: PS #6 is a sheltering location. The backup generator is in need of replacement. Solution: The Town will work with the school to purchase and install a replacement generator at the school.	1. In progress 2. Project is in conceptual design and identifying funding mechanisms to fund the activity. The School Board is actively working on the specifications and sizing for backup generator to ensure reliable power for the critical facility identified. This initiative aims to enhance the resilience and preparedness of our community.	1. Include 2.No Change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-West New York-012	Backup generator for Housing Building on 50th & Palisade.	All hazards	OEM, Engineer	Problem: The Housing Building on 50th & Palisade is a warming and cooling shelter but lacks a backup power source. Solution: The Town Engineer will research what size generator is necessary to supply backup power to the warming and cooling shelter. The town will then work with the school to purchase and install a generator at the building.	1. In progress 2. Project is in conceptual design and identifying funding mechanisms to fund the activity. The Town is actively working on the specifications and sizing for backup generator to ensure reliable power for the critical facility identified. This initiative aims to enhance the resilience and preparedness of our community.	1. Include 2.No Change 3. N/A

14.7.2 Additional Mitigation Efforts

In addition to the completed mitigation actions from the previous HMP, West New York identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

14.7.3 Proposed Hazard Mitigation Actions for the HMP Update

West New York participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that West New York would like to pursue in the future to reduce the effects of hazards. The actions 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 Town priorities.

Table 14-18 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 14-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 14-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X	X			X					X
Drought	X	X			X					X
Extreme Temperatures	X	X			X					X
Flood	X	X		X	X	X	X			X
Geological Hazards	X	X			X					X
Severe Weather	X	X		X	X	X	X			X
Severe Winter Weather	X	X			X	X				X
Wildfire	X	X	X		X	X		X		X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 14-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-WestNewYork-001	Radio Communications Building	1	1	0	1	1	0	0	1	1	1	1	1	1	1	**11**	**High**
2025-WestNewYork-002	Brushfire Mitigation	0	1	0	0	1	0	1	1	1	0	1	1	0	1	**8**	**Medium**
2025-WestNewYork-003	Pre-flood Plan for Parking garages	0	1	1	1	1	1	1	1	1	1	1	1	0	0	**11**	**High**
2025-WestNewYork-004	CERT Team	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**14**	**High**
2025-WestNewYork-005	Emergency Lighting for Public Buildings	1	0	0	1	1	1	1	1	1	1	1	1	1	1	**12**	**High**
2025-WestNewYork-006	Update Flood Damage Prevention Ordinance	0	1	1	1	1	1	1	1	1	1	1	1	1	1	**13**	**High**
2025-WestNewYork-007	Mitigate flood-prone properties, including RL/SRL property	1	1	1	1	1	0	0	1	0	1	1	1	1	1	**11**	**High**
2025-WestNewYork-008	Backup generator for PS #5	1	1	1	1	1	0	0	1	1	1	1	1	1	1	**12**	**High**
2025-WestNewYork-009	Replace backup generators at the High School	1	1	1	1	1	0	0	1	1	1	1	1	1	1	**12**	**High**
2025-WestNewYork-010	Backup generator for Freshman Academy	1	1	1	1	1	0	0	1	1	1	1	1	1	1	**12**	**High**
2025-WestNewYork-011	Backup generator for PS #6	1	1	1	1	1	0	0	1	1	1	1	1	1	1	**12**	**High**
2025-WestNewYork-012	Backup generator for Housing Building on 50th & Palisade.	1	1	1	1	1	0	0	1	1	1	1	1	1	1	**12**	**High**
2025-WestNewYork-013	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	**13**	**High**

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

Action 2025-WestNewYork-001. Radio Communications Building

Lead Agency:	OEM
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather, Severe Winter Weather
Description of the Problem:	The radio communications building near the 11th Avenue port is being upgraded to handle radio communications in the area. It is in a location that is prone to flooding but is the only location available for this use.
Description of the Solution:	Critical infrastructure in the building will be elevated above the 500-year flood level. A generator will be installed above the 500-year flood level.
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP, PDM, FMA
Implementation Timeline:	1-5 years
Goals Met:	2,6
Benefits:	Radio communications remain functional during flooding and storm events
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders and emergency managers to maintain critical services that socially vulnerable populations rely on.
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.
Impact on Critical Facilities/Lifelines:	This action will protect the Radio Communications Buildings which is a critical facility, maintaining the critical services that it provides.
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.
Climate Change Considerations:	This action addresses anticipated increases in flooding frequency and severity through protection to the 500-year (0.2-percent annual chance) flood level.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services, Property Protection
Priority	High

Alternatives

Action	Evaluation
No Action	-
Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area
Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.

Action 2025-WestNewYork-002. Brushfire Mitigation

Lead Agency:	OEM
Supporting Agencies:	-
Hazards of Concern:	Wildfire
Description of the Problem:	There is possible wildfire risk to the areas between Kennedy Boulevard East and River Road and at Donnelly Memorial Park. Small fires have happened in this area in the past due to human causes (small fires, cigarette butts, etc.). A larger fire under dry and windy conditions may impact buildings surrounding the area.
Description of the Solution:	The Town will conduct a feasibility assessment to determine what level of wildfire risk exists. Actions identified will be implemented. Possible actions include vegetation management, prescribed burning or removal of wildfire fuel, clearing vegetation near buildings to provide a buffer zone, etc.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget, HMGP, Firefighter assistance grant program
Implementation Timeline:	1-5 years
Goals Met:	1,2
Benefits:	Reduction in wildfire risk
Impact on Socially Vulnerable Populations:	Reduces health risks from smoke and fire exposure, and protects affordable housing and community spaces.
Impact on Future Development:	Creates safer conditions for new housing and infrastructure, encouraging sustainable growth.
Impact on Critical Facilities/Lifelines:	Protects essential services like power, water, and emergency routes from wildfire disruption.
Impact on Capabilities:	Strengthens local emergency response, planning, and inter-agency coordination for future hazards.
Climate Change Considerations:	Supports climate adaptation by reducing fire risk under hotter, drier conditions.
Mitigation Category	Natural Systems Protection
CRS Category	Natural Resource Protection, Property Protection
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Public Awareness Campaigns Only	Doesn't physically reduce fuel loas or prevent accidental ignitions
Installing Fire Retardant Barriers	Expensive, require regular maintenance

Action 2025-WestNewYork-003. Pre-Flood Plan for Parking Garages

Lead Agency:	Public Safety
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Parking garages near the waterfront have been flooded and resulted in damaged vehicles.
Description of the Solution:	The Town will develop a pre-flood plan with messaging to remove cars from flood prone parking garages.
Estimated Cost:	Low
Potential Funding Sources:	Municipal Budget
Implementation Timeline:	1-5 years
Goals Met:	2
Benefits:	Reduction in damaged vehicles
Impact on Socially Vulnerable Populations:	Prevents financial hardship by reducing vehicle loss for residents who may rely on a single car for work or healthcare access.
Impact on Future Development:	Encourages resilient design and planning for future waterfront infrastructure and parking solutions.
Impact on Critical Facilities/Lifelines:	Keeps access routes and emergency vehicle staging areas clear and operational during flood events.
Impact on Capabilities:	Improves coordination between emergency management, public works, and communications teams.
Climate Change Considerations:	Addresses increased flood risk from sea level rise and more intense storms through proactive planning.
Mitigation Category	Education and Awareness Programs
CRS Category	Public Information
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Relocating parking structure away from waterfront	Space limitations, zoning restrictions, high cost
	Installing permanent flood barriers around garages	High installation and maintenance costs

Action 2025-WestNewYork-004. CERT Team

Lead Agency:	OEM	
Supporting Agencies:	Public Safety	
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	The Town lacks a CERT Team.	
Description of the Solution:	Improve the capacity of overall emergency response by establishing and training a Citizen Emergency Response Team	
Estimated Cost:	Low	
Potential Funding Sources:	Municipal Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,4,7	
Benefits:	Additional capacity for disaster events	
Impact on Socially Vulnerable Populations:	Provides faster, localized support to those who may be hardest to reach or assist during emergencies.	
Impact on Future Development:	Builds a culture of preparedness that supports resilient community planning and safer neighborhoods.	
Impact on Critical Facilities/Lifelines:	CERT members can assist in protecting or restoring access to key infrastructure during disasters.	
Impact on Capabilities:	Expands the Town's emergency response capacity with trained volunteers who can assist in a variety of roles.	
Climate Change Considerations:	Enhances readiness for climate-driven events like floods, heatwaves, and severe storms through community-based response.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Outsourcing to neighboring towns	Unable to provide timely assistance, especially if dealing with their own emergencies
	Relying solely on professional emergency services	May be overwhelmed or delayed during large scale disasters

Action 2025-WestNewYork-005. Emergency Lighting for Public Buildings

Lead Agency:	OEM	
Supporting Agencies:	Public Safety	
Hazards of Concern:	Flood, Geological Hazards, Severe Weather, Severe Winter Weather	
Description of the Problem:	Public Buildings lack external emergency lighting.	
Description of the Solution:	Install permanent emergency lighting on the outside of public buildings.	
Estimated Cost:	Medium	
Potential Funding Sources:	Municipal Budget	
Implementation Timeline:	1-5 years	
Goals Met:	6	
Benefits:	Enhances safety, visibility, and operational readiness during emergencies.	
Impact on Socially Vulnerable Populations:	Improves safety and accessibility for individuals with mobility or vision challenges during emergencies.	
Impact on Future Development:	Encourages integration of resilient design features in future public infrastructure projects.	
Impact on Critical Facilities/Lifelines:	Enhances visibility and access to essential public buildings like shelters, clinics, or command centers during outages.	
Impact on Capabilities:	Supports emergency operations by improving nighttime visibility for responders and the public.	
Climate Change Considerations:	Provides resilience during climate-related events like storms or heatwaves that may cause power outages.	
Mitigation Category	Structural and Infrastructure Projects	
CRS Category	Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Portable Lighting or Flashlights	May not be readily available
	Relying on streetlights or nearby lighting	May also lose power during outages or disasters

Action 2025-WestNewYork-006. Update Flood Damage Prevention Ordinance

Lead Agency:	Administration
Supporting Agencies:	Building Department
Hazards of Concern:	Flood
Description of the Problem:	A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.
Description of the Solution:	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.
Estimated Cost:	Staff time
Potential Funding Sources:	Municipal budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,6
Benefits:	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.
Impact on Socially Vulnerable Populations:	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.
Impact on Future Development:	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.
Impact on Critical Facilities/Lifelines:	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.
Impact on Capabilities:	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.
Climate Change Considerations:	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	High

Alternatives	Action	Evaluation
	No Action	-
	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage

Action 2025-WestNewYork-007. Mitigate Flood-Prone Properties, including RL/SRL Property

Lead Agency:	Floodplain Administrator	
Supporting Agencies:		
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The Town has one repetitive loss property.	
Description of the Solution:	Conduct outreach to 10 flood-prone property owners, including the RL/SRL property owner and provide information on mitigation alternatives.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA HMGP, FMA, Local Cost Share by Residents	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3,5	
Benefits:	Eliminates flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.	
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:	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.	
Impact on Critical Facilities/Lifelines:	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.	
Impact on Capabilities:	Removing the risk from the immediate floodplain via acquisition of properties will free up resources for search and rescue and other emergency operations as needed.	
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of severe rainfall, flash flooding, riverine flooding, and coastal flooding from sea level rise and storm surge events. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Levee around floodplain	Costly, not enough room
	Deployable flood barriers	Requires deployment. Residents may not have adequate time to deploy, especially those who are elderly or disabled.

Action 2025-WestNewYork-008. Backup Generator for PS #5

Lead Agency:	School Board
Supporting Agencies:	OEM, Engineer
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	PS #5 is a sheltering location. The School lacks a backup power source.
Description of the Solution:	The Town Engineer will research what size generator is necessary to supply backup power to the school. The town will then work with the school to purchase and install a generator at the school.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA HMGP, PDM, EMPG, School Budget
Implementation Timeline:	1-5 years
Goals Met:	6
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:	This action results in protection of a critical facility that could support future development.
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:	This action ensures continuity of operations to maintain capabilities.
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services
Priority	High

Alternatives

Action	Evaluation
No Action	-
Microgrid	Costly and difficult to implement.
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-WestNewYork-009. Replace Backup Generators at the High School

Lead Agency:	School Board
Supporting Agencies:	OEM, Engineer
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	The High School is a sheltering location. The School's two backup generators need replacement.
Description of the Solution:	The Town will work with the school to purchase and install replacement generators at the school.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA HMGP, PDM, EMGP, School Budget
Implementation Timeline:	1-5 years
Goals Met:	6
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:	This action results in protection of a critical facility that could support future development.
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:	This action ensures continuity of operations to maintain capabilities.
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services
Priority	High

Alternatives

Action	Evaluation
No Action	-
Microgrid	Costly and difficult to implement.
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-WestNewYork-010. Backup Generator for Freshman Academy

Lead Agency:	School Board
Supporting Agencies:	OEM, Engineer
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Freshman Academy is a sheltering location but lacks a backup power source.
Description of the Solution:	The Town Engineer will research what size generator is necessary to supply backup power to the school. The town will then work with the school to purchase and install a generator at the school.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA HMGP, PDM, EMGP, School Budget
Implementation Timeline:	1-5 years
Goals Met:	6
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:	This action results in protection of a critical facility that could support future development.
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:	This action ensures continuity of operations to maintain capabilities.
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services
Priority	High

Alternatives

Action	Evaluation
No Action	-
Microgrid	Costly and difficult to implement.
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-WestNewYork-011. Backup Generator for PS #6

Lead Agency:	School Board
Supporting Agencies:	OEM, Engineer
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	PS #6 is a sheltering location. The backup generator is in need of replacement.
Description of the Solution:	The Town will work with the school to purchase and install a replacement generator at the school.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA HMGP, PDM, EMGP, School Budget
Implementation Timeline:	1-5 years
Goals Met:	6
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:	This action results in protection of a critical facility that could support future development.
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:	This action ensures continuity of operations to maintain capabilities.
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services
Priority	High

Alternatives

Action	Evaluation
No Action	-
Microgrid	Costly and difficult to implement.
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-WestNewYork-012. Backup Generator for Housing Building on 50th and Palisade

Lead Agency:	OEM
Supporting Agencies:	Engineer
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	The Housing Building on 50th & Palisade is a warming and cooling shelter but lacks a backup power source.
Description of the Solution:	The Town Engineer will research what size generator is necessary to supply backup power to the warming and cooling shelter. The town will then work with the school to purchase and install a generator at the building.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA HMGP, PDM, EMGP, School Budget
Implementation Timeline:	1-5 years
Goals Met:	6
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:	This action results in protection of a critical facility that could support future development.
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:	This action ensures continuity of operations to maintain capabilities.
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.
Mitigation Category	Structure and Infrastructure Projects
CRS Category	Emergency Services
Priority	High

Alternatives

Action	Evaluation
No Action	-
Microgrid	Costly and difficult to implement.
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-WestNewYork-013. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	City OEM, City DPW
Hazards of Concern:	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must: • Determine where the damage occurred within the community and if the damaged structures are in an SFHA. • Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. • Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. • Require permits for floodplain development. The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
Description of the Solution:	The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 *Developing a Substantial Damage Management Plan* (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	3, 6
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
Impact on Capabilities:	This action improves disaster recovery capabilities.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
Mitigation Category	Local Plans and Regulations
CRS Category	Emergency Services, Preventative Measure
Priority	High

Alternatives	Action	Evaluation
	No Action	-
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements

15. JERSEY CITY MUNICIPAL UTILITIES AUTHORITY

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the participating special districts with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Jersey City Municipal Utilities Authority (JCMUA), describes who participated in the planning process, assesses JCMUA's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

15.1 Hazard Mitigation Planning Team

The Jersey City Municipal Utilities Authority identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many County departments. The deputy executive director represented the JCMUA on the Hudson County HMP Planning Partnership and Steering Committee and supported the local planning process 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.

Table 15-1 summarizes the JCMUA officials who participated in the development of the annex and in what capacity. Additional documentation of the JCMUA's planning activities through Planning Partnership meetings is included in Volume I.

Table 15-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Joseph Coviello, Deputy Executive Director Address: 13-15 Linden Ave East, Jersey City, NJ 07305 Phone Number: 201-432-1150 Email: j.coviello@jcmua.com	Name/Title: Richard Haytas, Chief Engineer Address: 13-15 Linden Ave East, Jersey City, NJ 07305 Phone Number: 201-432-1150 Email: r.haytas@jcmua.com
National Flood Insurance Program Floodplain Administrator	
Please see Chapter 8, the City of Jersey City Annex	
Additional Contributors	
Name/Title: Richard Haytas, Chief Engineer Method of Participation: Participated in the planning process and provided information for requested worksheets.	
Name/Title: Joseph Coviello, Deputy Executive Director Method of Participation: Participated in the planning process.	
Name/Title: Jose Cunha, Executive Director Method of Participation: Participated in the planning process.	
Name/Title: Ruth Mogro, Supervising Engineer Method of Participation: Participated in the planning process	

15.2 Community Profile

Originally established in 1949 as the Jersey City Sewerage Authority (JCSA), the agency constructed two wastewater treatment plants—one along Route 440 (now the site of the JCMUA offices) and another at the foot of Communipaw Avenue, adjacent to what is now the Liberty Science Center. These facilities served the city until 1990, when stricter environmental regulations prompted a system upgrade. With a $21 million grant from the U.S. Environmental Protection Agency (USEPA), the treatment plants were converted into pumping stations, redirecting wastewater through a 72-inch pipe beneath Newark Bay to the Passaic Valley Sewerage Commissioners' treatment facility in Newark.

In 1998, the JCSA became the JCMUA when it assumed responsibility for the city's water system, previously managed by a municipal department. The JCMUA contracts the operation of the water system to SUEZ Water (formerly United Water of Jersey City), a company recognized for delivering efficient, high-quality service (JCMUA 2025).

Today, the JCMUA manages both the water and sewer systems for Jersey City. It maintains over 240 miles of sewer lines and approximately 5,000 catch basins, and it pumps nearly 50 million gallons of wastewater daily to Newark for treatment.

Jersey City's potable water is supplied by the JCMUA, with bulk water also provided to Hoboken, and to municipalities including Lyndhurst, Parsippany, and Montville. Emergency interconnections exist with Bayonne, West Caldwell, North Jersey District Water Supply Commission, Newark, and the Passaic Valley Water Commission. The system serves approximately 34,000 retail customers within Jersey City.

The JCMUA serves a population of over 280,000 residents across a 21.23-square-mile area. While the Authority owns fewer than 50 acres of land, all water system-related properties are owned by the City of Jersey City.

A Board of Commissioners consisting of five regular appointments and two alternates governs the JCMUA. The Mayor of Jersey City with the consent of the City Council appoints the Commissioners (JCMUA 2025).

15.3 Jurisdictional Capability Assessment and Integration

JCMUA performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs

- Adaptive capacity to withstand hazard events

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

15.3.1 Planning and Regulatory Capability and Integration

Table 15-2 summarizes the planning and regulatory tools that are available to the Jersey City Municipal Utilities Authority.

Table 15-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	No	-	State and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Zoning/Land Use Code	No	-	Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Subdivision Code	No	-	Local	
How has or will this be integrated with the HMP and how does this reduce risk?				
Site Plan Code	No	-	Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Code	No	-	Local	
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

Growth Management	No	-	Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Flood Damage Prevention Ordinance	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive/Master Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Capital Improvement Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

15.3.2 Development and Permitting Capability

Table 15-3 summarizes the capabilities of the JCMUA to oversee and track development.

Table 15-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	No	-
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	No	-
Describe the level of buildout in your jurisdiction.	N/A	

15.3.3 Administrative and Technical Capability

Table 15-4 summarizes potential staff and personnel resources available to the JCMUA and their current responsibilities that contribute to hazard mitigation.

Table 15-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	No	-
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	No	-
Construction/Building/Code Enforcement Department	No	-
Emergency Management/Public Safety Department	No	-
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	No	-
Human Resources Manual - Do any job descriptions specifically include identifying or	No	-

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
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	No	-
Engineers or professionals trained in building or infrastructure construction practices	Yes	JCMUA/Engineering sub-consultant
Planners or engineers with an understanding of natural hazards	Yes	JCMUA/Engineering sub-consultant
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	JCMUA/Engineering sub-consultant
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	Yes	JCMUA/Engineering sub-consultant
Surveyors	Yes	JCMUA/Engineering sub-consultant
Emergency manager	No	-
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

15.3.4 Fiscal Capability

Table 15-5 summarizes financial resources available to the JCMUA.

Table 15-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes (CDBG-DR)
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	No
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Yes

15.3.5 Education and Outreach Capability

Table 15-6 summarizes the education and outreach resources available to the JCMUA.

Table 15-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	MUA has a Media Director
Personnel skilled or trained in website development	Yes	IT Staff
Hazard mitigation information available on your website	Yes	Yes – the MUA's website provides information on their website including stormwater management, news and information, updates to upgrades and improvements, and information on site plan requirements.
Social media for hazard mitigation education and outreach	Yes	Yes – the MUA maintains Facebook and Twitter accounts where they use the platforms to rely information regarding construction notices, advisories, and service disruptions.
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	No	-
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-

15.3.6 Community Classifications

Table 15-7 summarizes classifications for community programs available to the JCMUA.

Table 15-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable
— = Unavailable

15.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 15-8 summarizes the adaptive capacity for each identified hazard of concern and the The Jersey City Municipal Utilities Authority'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 15-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam/Levee	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Strong
Geologic Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

15.4 National Flood Insurance Program Compliance

The JCMUA does not participate in the NFIP. For NFIP compliance with the City of Jersey City, please refer to the City's annex (Chapter 8).

15.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 15-9 through Table 15-11.

Table 15-9. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
The Jersey City Municipal Utilities Authority is not responsible for permitting new construction. Permitting is the responsibility of the City of Jersey City.				

Table 15-10. Recent Major Development and Infrastructure from 2017 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

Table 15-11. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

15.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of the Jersey City Municipal Utilities Authority's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

15.6.1 Hazard Area

Hazard area maps illustrate the probable hazard areas impacted within the County, to include JCMUA. These hazard maps are shown in Volume 1 of this plan within the hazard profiles. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Hudson has significant exposure. The maps show the location of potential new development, where available.

15.6.2 Hazard Event History

The history of natural and non-natural hazard events in the JCMUA is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 15-12 provides details on loss and damage in the JCMUA during hazard events since the last hazard mitigation plan update.

Table 15-12. Hazard Event History in Hudson

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hudson
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	No physical damages reported at municipal level.
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	Localized flooding reported at several streets within Jersey City; flooded roadways and homes, fallen tree branches, power lines.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hudson
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	Widespread flooding reported at several streets within Jersey City; flooded roadways and homes, fallen tree branches, power line.
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	Power outages reported

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

15.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for the JCMUA.

15.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. The Jersey City Municipal Utilities Authority reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the JCMUA indicated the following:

- None Identified

Table 15-13 shows Hudson's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 15-13. Hazard Ranking

Hazard	Rank
Dam/Levee Failure	Low
Drought	Medium
Extreme Temperature	Medium
Flood	High
Geological Hazards	Medium
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

15.6.3.2 Critical Facilities

Table 15-14 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 15-14. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
Jersey City MUA	Wastewater Treatment	-	X

Source: Hudson County; HIFLD; NJGIN

15.6.4 Identified Issues

After review of the JCMUA's hazard event history, hazard rankings, hazard location, and current capabilities, Hudson identified the following vulnerabilities within the community:

- The conveyance of the Hackensack and Hudson Rivers leads to flooding due to stormwater.
- The City's sewer system is in need of repair and leads to flooding in lower lying areas.
- The SCADA system is outdated and in need of upgrades.
- Generators at the MUA facilities are dated and in needed of replacement.
- While the JCMUA has been working on installing stormwater pumps at their facilities, additional pumps need to be installed to help alleviate flooding and allow the facilities to operate during heavy rain.
- The area of Bates Street experiences CSO flooding. This leads to flooding of streets and buildings.
- JCMUA staff play a critical role in maintaining essential water and sewer infrastructure during natural hazard events. However, without regular and advanced training, staff may not be fully prepared to respond effectively to severe weather and flooding, which can lead to delayed response times, increased damage, and safety risks.
- The following critical facilities are located in the special flood hazard area:
    - Pump Station 3C, 3D, 3E

  - Merceles St Pump Station 4
- Stormwater flooding is a recurring problem at the following locations:
  - Merceles St Area
  - Wayne St
  - Newark Ave-Division St
  - CC Drive-Wayne St
  - Pacific St – Grand St
  - 9th St – Brunswick St
  - Richard St Netting & Pump Station
  - 5th St – Monmouth
  - Grove St and Marin Blvd (18th St and Hoboken borderline)
  - Country Village Area
  - Nelson Ave
  - State Highway 440
- The JCMUA currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about storm mitigation, preparation, response, and recovery.
- The Mill Creek Redevelopment area and Jersey City Medical Center are located in this area and are found within a 1 percent annual chance flood area and contains critical infrastructure. There is also a CSO in this area.

15.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

15.7.1 Past Mitigation Action Status

Table 15-15 indicates progress on the County's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

15.7.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 15-15, JCMUA identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

Table 15-15. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-JCMUA-001	Increase Stormwater Conveyance	Coastal Storm, Severe Weather, Flood	JCMUA	**Problem**: The conveyance of the Hackensack and Hudson Rivers leads to flooding due to stormwater. **Solution**: Construct deep tunnels approx. 20 ft in diameter running north & south parallel to the Hackensack and Hudson Rivers to reduce flooding through increased conveyance of stormwater.	1.No Progress 2. Need funding, land acquisition, Engineering design	1.Include 2. No change 3. N/A
2020-JCMUA-002	Sewer System Repairs Throughout City	Coastal Storm, Severe Weather, Flood	JCMUA	**Problem**: The City's sewer system is in need of repair and leads to flooding in lower lying areas. **Solution**: Sewer repair and enhancement in the lower elevations of the City to reduce flooding through increased conveyance	1.In Progress 2. Ongoing project, 15-year duration	1.Include 2. No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-JCMUA-003	Upgrade SCADA System	Coastal Storm, Severe Weather, Flood	JCMUA	**Problem**: The SCADA system is outdated and in need of upgrades. **Solution**: SCADA (technology) enhancements to water system to reduce vulnerability to service interruption caused by extreme rain and flooding.	1.In Progress 2. Ongoing project	1.Include 2. No change 3. N/A
2020-JCMUA-004	Pump Station Generators	All Hazards	JCMUA	**Problem**: Generators at the MUA facilities are dated and in needed of replacement. **Solution**: Generator replacements at JCMUA facilities: • JCMUA sanitary pumping station at Port Jersey Blvd E. (PS1) • JCMUA sanitary pumping station at Port Jersey Blvd N. (PS2) JCMUA sanitary pumping station at Chapel Ave. PS (PS3B)	1. In Progress 2. Equipment delivery delays	1. Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-JCMUA-005	Stormwater Pumps at JCMUA Facilities	Coastal Storm, Severe Weather, Flood	JCMUA	**Problem**: While the JCMUA has been working on installing stormwater pumps at their facilities, additional pumps need to be installed to help alleviate flooding and allow the facilities to operate during heavy rain. **Solution**: Installation of stormwater pumps at JCMUA outfall and netting facilities: • 18th St. Outfall in order to mitigate CSO street flooding and sewer backups. • Sip Ave. netting facility • Mill Creek Regulator facility • Clendenny Netting facility • Claremont/Cateret Netting Facility	1. In Progress 2. See details below: • 18th Street – In progress – need funding, land acquisition • Sip Avenue – Complete • Mill Creek – Complete • Clendenny Netting – in progress – need funding, land acquisition, Engineering drawings • Claremont/Carteret netting – In progress – Need funding, land acquisition, Engineering drawings	1. Include 2. Change narrative to reflect updates 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-JCMUA-006	Bates St. Sewer Separation	Coastal Storm, Severe Weather, Flood	JCMUA	**Problem:** The area of Bates Street experiences CSO flooding. This leads to flooding of streets and buildings. **Solution:** Sewer separation in the Bates Street Redevelopment area to alleviate combined sewage flooding.	1. In Progress 2. Need funding, land acquisition, Engineering drawings	1. Include 2.No change 3. N/A

15.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Hudson participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Hudson would like to pursue in the future to reduce the effects of hazards. The actions 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.

Table 15-16 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 15-17 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 15-16. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure		X								X
Drought		X								X
Extreme Temperatures		X								X
Flood		X		X		X	X		X	X
Geological Hazards		X								X
Severe Weather		X		X		X	X		X	X
Severe Winter Weather		X								
Wildfire		X								X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 15-17. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-JCMUA-001	Increase Stormwater Conveyance	1	1	1	1	1	0	1	0	1	1	1	1	1	0	**11**	High
2025-JCMUA-002	Sewer System Repairs Throughout City	1	1	1	1	0	0	0	0	1	1	1	1	1	0	**9**	Medium
2025-JCMUA-003	Upgrade SCADA System	1	1	1	1	0	0	0	0	1	1	1	1	1	0	**9**	Medium
2025-JCMUA-004	Pump Station Generators	1	1	1	1	1	0	0	0	1	1	1	1	1	0	**10**	Medium
2025-JCMUA-005	Stormwater Pumps at JCMUA Facilities	1	1	1	1	1	0	0	0	1	1	1	1	1	0	**10**	Medium
2025-JCMUA-006	Bates St. Sewer Separation	1	1	1	1	0	0	1	0	1	1	1	1	1	0	**10**	Medium
2025-JCMUA-007	Advance Training for Staff	1	1	1	1	1	0	1	1	1	1	1	1	0	1	**12**	High
2025-JCMUA-008	Pump Station in Special Flood Hazard Area	1	1	1	1	1	0	1	1	1	1	1	1	1	0	**12**	High
2025-JCMUA-009	Pumps Stations	1	1	1	1	1	0	1	1	1	1	1	1	1	1	**13**	High

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-JCMUA-010	Public Education and Outreach	1	1	1	1	1	1	1	1	1	1	1	1	0	0	**12**	High
2025-JCMUA-011	Engineering Study of Mill Creek/Bergen-Lafayette/ Van Vorst Park/Hamilton Park	1	1	1	1	0	0	1	0	1	1	1	1	1	0	**10**	Medium

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

Action 2025-JCMUA-001. Increase Stormwater Conveyance

Lead Agency:	JCMUA	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The conveyance of the Hackensack and Hudson Rivers leads to flooding due to stormwater.	
Description of the Solution:	Construct deep tunnels approx. 20 ft in diameter running north & south parallel to the Hackensack and Hudson Rivers to reduce flooding through increased conveyance of stormwater.	
Estimated Cost:	High	
Potential Funding Sources:	EPA Construction Grants, NJDEP Sewage Improvement Grants	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3,4,6,7	
Benefits:	Increase capacity; reduce flooding; continuity of operations.	
Impact on Socially Vulnerable Populations:	Reducing flood risk can significantly benefit low-income and marginalized communities often located in flood-prone areas. These populations typically have fewer resources to recover from flood damage.	
Impact on Future Development:	Improved flood resilience can make surrounding areas more attractive for residential, commercial, and industrial development.	
Impact on Critical Facilities/Lifelines:	Enhanced stormwater management protects hospitals, emergency services, transportation infrastructure, and utilities from flood-related disruptions.	
Impact on Capabilities:	Significantly increases the City's and County's ability to manage stormwater, reducing reliance on surface-level drainage systems.	
Climate Change Considerations:	Deep tunnels provide a robust adaptation strategy for managing increased rainfall intensity and frequency due to climate change	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Levees and Floodwalls	Displacement of risk
	Pumping Stations and Surface Diversion Channels	Can become overwhelmed by intensity and duration of rainfall

Action 2025-JCMUA-002. Sewer System Repairs Throughout City

Lead Agency:	JCMUA
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	The City's sewer system is in need of repair and leads to flooding in lower lying areas.
Description of the Solution:	Sewer repair and enhancement in the lower elevations of the City to reduce flooding through increased conveyance.
Estimated Cost:	High
Potential Funding Sources:	FEMA HMA, JCMUA Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,4,6,7
Benefits:	Increase capacity; reduce flooding; continuity of operations.
Impact on Socially Vulnerable Populations:	Sewer improvements can reduce health risks from sewage backups and flooding, improving living conditions.
Impact on Future Development:	Enhanced sewer infrastructure increases the feasibility of new residential and commercial developments in previously flood-prone areas.
Impact on Critical Facilities/Lifelines:	Improved sewer systems reduce the risk of service disruptions to hospitals, schools, emergency services, and utilities located in low-lying areas.
Impact on Capabilities:	Strengthens the City's and County's ability to manage stormwater and wastewater, especially during heavy rainfall.
Climate Change Considerations:	Prepares the city for more frequent and intense rainfall events associated with climate change.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	Medium

Alternatives	**Action**	**Evaluation**
	No Action	-
	Temporary pump stations	Short-term fix
	Elevating structures in flood prone areas	Costly, and doesn't address the root cause

Action 2025-JCMUA-003. Upgrade SCADA System

Lead Agency:	JCMUA
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	The SCADA system is outdated and in need of upgrades.
Description of the Solution:	SCADA (technology) enhancements to water system to reduce vulnerability to service interruption caused by extreme rain and flooding.
Estimated Cost:	High
Potential Funding Sources:	EPA Clean Water Fund Program; Drinking Water Loan Program
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,4,6,7
Benefits:	Continuity of operations; understanding of system status
Impact on Socially Vulnerable Populations:	Improves reliability of water services, reducing health and safety risks during extreme weather events.
Impact on Future Development:	Supports growth by ensuring modern, resilient infrastructure that can handle increased demand.
Impact on Critical Facilities/Lifelines:	Enhances monitoring and control of water systems, reducing service interruptions to hospitals, shelters, and emergency services.
Impact on Capabilities:	Boosts operational efficiency, real-time response, and system diagnostics for utility managers.
Climate Change Considerations:	Prepares infrastructure for more frequent and intense storms by enabling faster, data-driven responses to flooding and system stress.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection, Emergency Services, Preventative Measures
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Manual monitoring and control	Slow reaction time, labor intensive
Partial upgrades	Short term fix

Action 2025-JCMUA-004. Pump Station Generators

Lead Agency:	JCMUA	
Supporting Agencies:	-	
Hazards of Concern:	Dam/Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Generators at the MUA facilities are dated and in needed of replacement.	
Description of the Solution:	Generator replacements at JCMUA facilities: • JCMUA sanitary pumping station at Port Jersey Blvd E. (PS1) • JCMUA sanitary pumping station at Port Jersey Blvd N. (PS2) • JCMUA sanitary pumping station at Chapel Ave. PS (PS3B)	
Estimated Cost:	High	
Potential Funding Sources:	FEMA HMGP, JCMUA Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3,4,6,7	
Benefits:	Ensures uninterrupted operation of critical wastewater infrastructure during power outages.	
Impact on Socially Vulnerable Populations:	Reduces risk of sewage backups and service disruptions in vulnerable, flood-prone neighborhoods.	
Impact on Future Development:	Supports resilient infrastructure needed for safe expansion in surrounding areas.	
Impact on Critical Facilities/Lifelines:	Maintains essential sanitation services during emergencies, protecting public health and safety.	
Impact on Capabilities:	Improves system reliability and emergency preparedness across multiple pumping stations.	
Climate Change Considerations:	Enhances resilience to more frequent and severe storms that threaten power supply and infrastructure.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Emergency Services	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Microgrid	Costly and difficult to implement.
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-JCMUA-005. Stormwater Pumps at JCMUA Facilities

Lead Agency:	JCMUA	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	While the JCMUA has been working on installing stormwater pumps at their facilities, additional pumps need to be installed to help alleviate flooding and allow the facilities to operate during heavy rain	
Description of the Solution:	To address combined sewer overflow (CSO) street flooding and sewer backups, stormwater pumps are being installed at key JCMUA outfall and netting facilities. Two facilities—Sip Avenue Netting Facility and Mill Creek Regulator Facility—have been successfully completed. Three additional sites are currently in progress: the 18th Street Outfall, Clendenny Netting Facility, and Claremont-Carteret Netting Facility. These in-progress projects still require funding, land acquisition, and the development of engineering drawings.	
Estimated Cost:	High	
Potential Funding Sources:	EPA Construction Grants, NJDEP Sewage Improvement Grant	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3,4,6,7	
Benefits:	Increase capacity; reduce flooding; continuity of operations	
Impact on Socially Vulnerable Populations:	Vulnerable areas that may otherwise experience a loss of water during heavy rain or flooding will be more likely to retain services.	
Impact on Future Development:	Communities with sound and resilient infrastructure encourage commercial and residential development.	
Impact on Critical Facilities/Lifelines:	Hydration lifeline is more likely to remain intact.	
Impact on Capabilities:	Maintaining operational water services reduces recovery time and costs.	
Climate Change Considerations:	Consideration should be taken regarding the increase in heavy rain and flood events as a result of climate change.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structure Flood Control Project	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Increase Sewer Pipe Capacity	Costly
	Temporary Pumping Solutions	May not have the capacity or durability to handle prolonged or repeated storm events

Action 2025-JCMUA-006. Bates St. Sewer Separation

Lead Agency:	JCMUA	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The area of Bates Street experiences CSO flooding. This leads to flooding of streets and buildings.	
Description of the Solution:	Sewer separation in the Bates Street Redevelopment area to alleviate combined sewage flooding. This project requires funding, land acquisition, and the development of engineering drawings.	
Estimated Cost:	High	
Potential Funding Sources:	EPA Construction Grants, NJDEP Sewage Improvement Grant	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3,4,6,7	
Benefits:	Increase capacity; reduce flooding; continuity of operations	
Impact on Socially Vulnerable Populations:	Reduces health and property risks from flooding in underserved neighborhoods.	
Impact on Future Development:	Enables safer redevelopment and increases investment potential in the area.	
Impact on Critical Facilities/Lifelines:	Protects nearby infrastructure and services from flood-related disruptions.	
Impact on Capabilities:	Improves stormwater and wastewater management capacity in a high-risk area.	
Climate Change Considerations:	Sewer separation in the Bates Street area enhances resilience to climate change by reducing the risk of combined sewer overflows during increasingly frequent and intense rainfall events.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Underground Storage tanks	High cost and complex
	Green Infrastructure	Space constraints

Action 2025-JCMUA-007. Advance Training for Staff

Lead Agency:	JCMUA	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	JCMUA staff play a critical role in maintaining essential water and sewer infrastructure during natural hazard events. However, without regular and advanced training, staff may not be fully prepared to respond effectively to severe weather and flooding, which can lead to delayed response times, increased damage, and safety risks.	
Description of the Solution:	Implement a structured training program for JCMUA staff focused on emergency response protocols, flood mitigation procedures, SCADA system operations during hazards, and coordination with emergency management agencies. Training will include tabletop exercises, field simulations, and periodic refresher courses to ensure readiness and adaptability during hazard events.	
Estimated Cost:	Medium	
Potential Funding Sources:	HMGP, JCMUA Budget	
Implementation Timeline:	1-5 years	
Goals Met:	6	
Benefits:	Improved emergency response and decision-making during flooding and severe weather events.	
Impact on Socially Vulnerable Populations:	Faster and more effective responses to flooding and service disruptions help protect vulnerable communities that are often disproportionately affected.	
Impact on Future Development:	Supports resilient infrastructure planning and operations, ensuring that future development is better protected from hazard impacts.	
Impact on Critical Facilities/Lifelines:	Enhances the reliability and resilience of water and wastewater systems, which are essential lifelines during emergencies.	
Impact on Capabilities:	Significantly improves operational and emergency response capabilities across JCMUA departments.	
Climate Change Considerations:	Addresses the increasing frequency and severity of extreme weather events due to climate change by preparing staff to respond effectively.	
Mitigation Category	Education and Awareness Programs	
CRS Category	Public Information	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Basic Training Only	Less costly but may not provide the depth needed for complex emergencies
	Staff to voluntarily read materials or training	Not a reliable option. Staff may opt out.

Action 2025-JCMUA-008. Pump Station in Special Flood Hazard Area

Lead Agency:	JCMUA
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	The following critical facilities are located in the special flood hazard area: • Pump Station 3C, 3D, 3E • Merceles St Pump Station 4
Description of the Solution:	The JCMUA will conduct a feasibility assessment to determine what additional floodproofing measures are needed at Pump Stations 3C, 3D, 3E and Merceles St Pump Station 4 to protect each to the 500-year flood level. Options include: • Elevation of facility • Floodproofing of facility • Mobile flood barriers Once the most cost-effective option is identified, the JCMUA will carry out the option.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA HMGP, JCMUA Budget
Implementation Timeline:	1-5 years
Goals Met:	6
Benefits:	Ensures continuity of operations of Pump Stations 3C, 3D, 3E and Merceles St Pump Station 4.
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders and emergency managers to maintain critical services that socially vulnerable populations rely on.
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.
Impact on Critical Facilities/Lifelines:	This action will protect Pump Stations 3C, 3D, 3E and Merceles St Pump Station 4. which are critical facilities, maintaining the critical services that it provides.
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.
Climate Change Considerations:	This action addresses anticipated increases in flooding frequency and severity through protection to the 500-year (0.2-percent annual chance) flood level.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Emergency Services, Property Protection
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area

	Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.

Action 2025-JCMUA-009. Pump Stations

Lead Agency:	JCMUA
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Stormwater flooding is a recurring problem at the following locations: • Merceles St Area • Wayne St • Newark Ave-Division St • CC Drive-Wayne St • Pacific St – Grand St • 9th St – Brunswick St • Richard St Netting & Pump Station • 5th St – Monmouth • Grove St and Marin Blvd (18th St and Hoboken borderline) • Country Village Area • Nelson Ave • State Highway 440
Description of the Solution:	The JCMUA will construct a new pump station at locations below. The pump station will be protected to the 500-year flood level and will have a backup power generator on site. • Merceles St Area • Wayne St • Newark Ave-Division St • CC Drive-Wayne St • Pacific St – Grand St • 9th St – Brunswick St • Richard St Netting & Pump Station • 5th St – Monmouth • Grove St and Marin Blvd (18th St and Hoboken borderline) • Country Village Area • Nelson Ave • State Highway 440
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP, JCMUA Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,4,6,7
Benefits:	• Reduced risk of flooding and resulting damage to facilities. • Less risk of interruption to potable water services.
Impact on Socially Vulnerable Populations:	Vulnerable areas that may otherwise experience a loss of water during heavy rain or flooding will be more likely to retain services.
Impact on Future Development:	Communities with sound and resilient infrastructure encourage commercial and residential development.
Impact on Critical Facilities/Lifelines:	Hydration lifeline is more likely to remain intact.
Impact on Capabilities:	Maintaining operational water services reduces recovery time and costs.
Climate Change Considerations:	Consideration should be taken regarding the increase in heavy rain and flood events as a result of climate change.

Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Upgrade Existing Sewer Systems	High cost and time consuming
	Underground Storage Tanks	Partial fix, requires ongoing maintenance

Action 2025-JCMUA-010. Public Education and Outreach

Lead Agency:	JCMUA	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The JCMUA currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about storm mitigation, preparation, response, and recovery.	
Description of the Solution:	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with City of Jersey City and Hudson County on their program that provides information to the municipalities.	
Estimated Cost:	Low	
Potential Funding Sources:	JCMUA Budget	
Implementation Timeline:	1-5 years	
Goals Met:	5	
Benefits:	This action will improve the current public education and outreach program in the JCMUA by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resilience of JCMUA.	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards that may impact them.	
Impact on Future Development:	Not Applicable	
Impact on Critical Facilities/Lifelines:	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.	
Impact on Capabilities:	This action would build upon the JCMUA's already existing public education and outreach program.	
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 business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.	
Mitigation Category	Education and Awareness	
CRS Category	Public Information	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the JCMUA
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving guidance

Action 2025-JCMUA-011. Engineering Study of Mill Creek / Bergen-Lafayette / Van Vorst Park / Hamilton Park

Lead Agency:	JCMUA	
Supporting Agencies:	City Planning, JCRA, NJDOT, City Engineering	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The Mill Creek Redevelopment area and Jersey City Medical Center are located in this area and are found within a 1 percent annual chance flood area and contains critical infrastructure. There is also a CSO in this area.	
Description of the Solution:	Conduct a comprehensive engineering study be undertaken to address Area D, including the CSO (which has already been studied to some extent in the Mill Creek Initial Design + Finance Analysis and Recommendations prepared by Build it Green) as well as the threat of storm surge. The complexity of this area merits special attention in order to develop a long-term, cost effective solution that will thoroughly protect all of the residents, businesses, and infrastructure located therein.	
Estimated Cost:	High	
Potential Funding Sources:	HMGP, FMA, JCMUA Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3,6	
Benefits:	Identify solutions to protect critical facilities and infrastructure from flood damage	
Impact on Socially Vulnerable Populations:	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:	Hydration lifeline is more likely to remain intact.	
Impact on Capabilities:	Maintaining operational water services reduces recovery time and costs.	
Climate Change Considerations:	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.	
Mitigation Category	Natural Systems Protection, Structure and Infrastructure Projects	
CRS Category	Property Protection, Preventative Measures	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Upgrades without study	Misaligned investments, not addressing root cause
	Rely on existing studies	May not account for updated data, leading to incomplete solutions

15. KEARNY MUNICIPAL UTILITIES AUTHORITY

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the participating special districts with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Kearny Municipal Utilities Authority (KMUA), describes who participated in the planning process, assesses KMUA's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

15.1 Hazard Mitigation Planning Team

The Kearny Municipal Utilities Authority identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many County departments. The deputy executive director represented the KMUA on the Hudson County HMP Planning Partnership and Steering Committee and supported the local planning process 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.

Table 16-1 summarizes the KMUA officials who participated in the development of the annex and in what capacity. Additional documentation of the KMUA's planning activities through Planning Partnership meetings is included in Volume I.

Table 16-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: JoVonn Quinones, Executive Director Address: 39 Central Avenue, Kearny, NJ 07032 Phone Number: 973-465-5367 Email: jquinones@kmua.org	Name/Title: Mark Coimbra, Authority Engineer (Consultant) Address: 111 Wood Avenue South, Iselin, NJ 08830 Phone Number: 201-795-2314 Email: mark.coimbra@mottmac.com
National Flood Insurance Program Floodplain Administrator	
Please see Chapter 9, the Town of Kearny Annex	
Additional Contributors	
Name/Title: JoVonn Quinones Method of Participation: Participated in the planning process and provided information for requested worksheets.	
Name/Title: Mark Coimbra, Authority Engineer (Consultant) Method of Participation: Participated in the planning process and provided information for requested worksheets.	
Name/Title: Gregg Paster, Attorney (Consultant) Method of Participation: Participated in the planning process.	
Name/Title: Zayda Balcazar Method of Participation: Participated in the planning process.	

15.2 Community Profile

The Kearny Municipal Utilities Authority was created by the Mayor and Council of the Town of Kearny in May of 1988. The Authority is responsible for the collection of storm water and wastewater from portions of Meadowlands and the South Kearny sections of the Town. It is also responsible for removing solids from the waste water and pumping it to the Passaic Valley Sewerage Commission in Newark for final treatment. The KMUA maintains one 17.5 million gallon per day capacity pumping station in South Kearny and three smaller pumping stations in the Kearny Meadowlands (Town of Kearny 2025).

15.3 Jurisdictional Capability Assessment and Integration

KMUA performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

15.3.1 Planning and Regulatory Capability and Integration

Table 16-2 summarizes the planning and regulatory tools that are available to the Kearny Municipal Utilities Authority.

Table 16-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				
Zoning/Land Use Code	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				
Subdivision Code	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				
Site Plan Code	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Code	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery/ Reconstruction Code	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?
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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Growth Management	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Flood Damage Prevention Ordinance	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive/Master Plan	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				
Capital Improvement Plan	Yes	Adopted Yearly	Local	KMUA
How has or will this be integrated with the HMP and how does this reduce risk? The KMUA annually updates a Capital Improvement Plan that documents the infrastructure within its jurisdiction and estimates the required funding for these projects over the next five years. With the 2025 updates to both the Hazard Mitigation Plan and the Capital Improvement Plan, KMUA has prepared worksheets for each proposed project to better support implementation. These worksheets outline the scope, prioritization, benefits, costs, and hazard mitigation aspects of each project. Integrating the Capital Improvement Plan with the Hazard Mitigation Plan is a strategic approach for KMUA to mitigate hazards, especially those related to flooding. This integration allows KMUA to pursue sustainable capital planning by assessing existing infrastructure, identifying vulnerabilities and non-compliance with standards, and prioritizing improvements that both address the greatest current operational challenges and the growing challenges related to climate resilience.				
Disaster Debris Management Plan	Yes	-	Countywide	Hudson County
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Stormwater Management Plan	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Continuity of Operations Plan	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	Yes	-	Local	Town of Kearny
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

15.3.2 Development and Permitting Capability

Table 16-3 summarizes the capabilities of the KMUA to oversee and track development.

Table 16-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	No	-
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	No	-
Describe the level of buildout in your jurisdiction.	N/A	

15.3.3 Administrative and Technical Capability

Table 16-4 summarizes potential staff and personnel resources available to the KMUA and their current responsibilities that contribute to hazard mitigation.

Table 16-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	Town of Kearny
Zoning Board of Adjustment	Yes	Town of Kearny
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	Town of Kearny
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	No	-
Construction/Building/Code Enforcement Department	Yes	Town of Kearny
Emergency Management/Public Safety Department	No	-
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Stormwater maintenance = KMUA
Mutual aid agreements	Yes	Neighboring communities – police and fire
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	KMUA/ Mott MacDonald
Engineers or professionals trained in building or infrastructure construction practices	Yes	KMUA/ Mott MacDonald
Planners or engineers with an understanding of natural hazards	Yes	KMUA/ Mott MacDonald
Staff with expertise or training in benefit/cost analysis	Yes	KMUA/ Mott MacDonald
Professionals trained in conducting damage assessments	Yes	Mott MacDonald
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Mott MacDonald
Staff that work with socially vulnerable populations or underserved communities	Yes	KMUA/Mott MacDonald

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Environmental scientists familiar with natural hazards	Yes	Mott MacDonald
Surveyors	Yes	Mott MacDonald
Emergency manager	Yes	Town of Kearny Emergency Management Office
Grant writers	Yes	Mott MacDonald/ Grant writer sub-consultant
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Stormwater engineer = Mott MacDonald Local or state water quality professional = KMUA/Outside consultant – licensed operator Watershed planner = Mott MacDonald Environmental specialist = Mott MacDonald

15.3.4 Fiscal Capability

Table 16-5 summarizes financial resources available to the KMUA.

Table 16-5. Fiscal Capabilities

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

15.3.5 Education and Outreach Capability

Table 16-6 summarizes the education and outreach resources available to the KMUA.

Table 16-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	No	-
Personnel skilled or trained in website development	No	-
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	No	-
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-

15.3.6 Community Classifications

Table 16-7 summarizes classifications for community programs available to the KMUA.

Table 16-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

15.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 16-8 summarizes the adaptive capacity for each identified hazard of concern and the Kearny Municipal Utilities Authority’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 16-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam/Levee	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Strong
Geologic Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

15.4 National Flood Insurance Program Compliance

The KMUA does not participate in the NFIP. For NFIP compliance with the Town of Kearny, please refer to the Town's annex (Chapter 9).

15.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 16-9 through Table 16-11.

Table 16-9. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
The Kearny Municipal Utilities Authority is not responsible for permitting new construction. Permitting is the responsibility of the Town of Kearny.				

Table 16-10. Recent Major Development and Infrastructure from 2017 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

Table 16-11. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

15.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of the Kearny Municipal Utilities Authority's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

15.6.1 Hazard Area

Hazard area maps illustrate the probable hazard areas impacted within the County, to include KMUA. These hazard maps are shown in Volume 1 of this plan within the hazard profiles. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Hudson has significant exposure. The maps show the location of potential new development, where available.

15.6.2 Hazard Event History

The history of natural and non-natural hazard events in the KMUA is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 16-12 provides details on loss and damage in the KMUA during hazard events since the last hazard mitigation plan update.

Table 16-12. Hazard Event History in Hudson

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hudson
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	No physical damages reported at municipal level.
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Damaged power lines and tree branches, minor damages at municipal level.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	Localized flooding reported at several streets within Kearny Township; flooded roadways and homes, fallen tree branches, power lines

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hudson
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	Widespread flooding reported at several streets within Kearny Township; flooded roadways and homes, fallen tree branches, power lines.
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	Power outages reported

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

15.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for the KMUA.

15.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. The Kearny Municipal Utilities Authority reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the KMUA indicated the following:

- None Identified

Table 16-13 shows Hudson's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 16-13. Hazard Ranking

Hazard	Rank
Dam/Levee Failure	Low
Drought	Medium
Extreme Temperature	Low
Flood	High
Geological Hazards	Low
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

15.6.3.2 Critical Facilities

Table 16-14 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 16-14. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
Kearny MUA – Harrison Ave Pump Station	Wastewater Pump	X	X
Kearny MUA – Kearny Point Pump Station	Wastewater Pump	-	X
Kearny MUA – Penn Ave Pump Station	Wastewater Pump	X	X

Source: Hudson County; HIFLD; NJGIN

15.6.4 Identified Issues

After review of the KMUA's hazard event history, hazard rankings, hazard location, and current capabilities, Hudson identified the following vulnerabilities within the community:

- The current generator at the Harrison Avenue Pump Station is approaching the end of its useful life due to prolonged operation during Hurricane Sandy.
- The SCADA system is outdated and in need of upgrades. It is not installed on all pumps part of KMUA.
- Storm sewer system rehabilitation is necessary to alleviate flooding in the area and must be investigated.

- Extreme temperatures pose significant risks to equipment functionality, staff safety, and facility accessibility—particularly for operations that run 24/7.
- All KMUA Pump stations- Bergen Ave, Harrison Ave, Pennsylvania Ave, and Kearny Point are at risk of being flooded for being at a low elevation. Access to stations is critical 24/7.
- The KMUA currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about storm mitigation, preparation, response, and recovery.

15.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

15.7.1 Past Mitigation Action Status

Table 16-15 indicates progress on the County's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

15.7.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 16-15, Hudson identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

Table 16-15. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-KearnyMUA-001	HAPS Generator Replacement	All	KMUA	**Problem**: The current generator at the Harrison Avenue Pump Station is approaching the end of its useful life due to prolonged operation during Hurricane Sandy. **Solution**: Replacement of the current generator at the Harrison Avenue Pump Station. The proposed generator will be a Cummins LTA 10 G1; model 250 DFAC.	1.No Progress 2. Additional customers proposed within the Harrison Ave Pump Station service area. Capacity at the station to be revisited, electrical upgrades are required for additional capacity and there are resilient infrastructure considerations for upgrades. Obstacles include cost, final build-out capacity analysis, and turnover within the KMUA and the Authority engineer staff.	1.Include 2. The Harrison Avenue Pump Station was constructed in early 1990s. Additional scope of work for upgrades at this pump station is being considered due to increased capacity needs within service area. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-KearnyMUA-002	SCADA Upgrades to Pump Stations	All	KMUA	**Problem**: The SCADA system is outdated and in need of upgrades. It is not installed on all pumps part of KMUA. **Solution**: Upgrade SCADA systems at all pump stations to enhance monitoring and operation during periods when the stations are otherwise inaccessible.	1.In Progress 2. Small SCADA upgrades were recently completed at the Kearny Point PS (KPPS). Additional SCADA upgrades proposed at BAPS and MSLA 1-D with ongoing project. Phases remaining include integration of all pump stations and removal of pneumatic air bubbler system at KPPS. Obstacles include turnover within the KMUA and the Authority engineer staff.	1.Include 2. The pneumatic air bubble system is outdated technology and is no longer accurate. 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-KearnyMUA-003	KMUA Storm Sewer Rehabilitation	All	KMUA	**Problem**: Storm sewer system rehabilitation necessary to alleviate flooding in the area and must be investigated **Solution**: Perform investigation and complete mapping of the storm sewer system in the district including condition assessment and rehabilitation projects to confirm all storm and sanitary sewers are separated.	1.No Progress 2. Obstacles include cost, funding opportunities, turnover within the KMUA and the Authority engineer staff, and poor mapping of existing facilities and record data.	1.Include 2. Additional breakdown of project scope is required. The project requires an I&I study, dry weather and wet weather investigations, smoke testing, dye testing, customer outreach for plans and connection details to KMUA facilities, proper GIS mapping and investigation of areas needing rehabilitation. Additional projects for areas requiring upgrades following the I&I study to be considered. 3. N/A

15.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Hudson participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Hudson would like to pursue in the future to reduce the effects of hazards. The actions 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.

Table 16-16 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 16-17 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 16-16. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure										
Drought										
Extreme Temperatures		X				X				X
Flood		X		X	X	X	X			X
Geological Hazards										
Severe Weather		X		X	X	X	X			X
Severe Winter Weather										
Wildfire										

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 16-17. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-KMUA-001	HAPS Generator Replacement	1	1	1	1	1	0	1	0	0	1	1	1	1	0	**10**	Medium
2025-KMUA-002	SCADA Upgrades	1	1	1	1	0	0	0	0	0	0	1	1	1	0	**7**	Medium
2025-KMUA-003	KMUA Storm Sewer Rehabilitation	0	1	1	1	0	0	1	0	0	0	1	1	1	0	**7**	Medium
2025-KMUA-004	Extreme Temperatures on Equipment	1	1	1	1	1	0	1	1	1	0	1	1	1	0	**11**	High
2025-KMUA-005	Pump Station in Special Flood Hazard Area	1	1	1	1	1	0	1	1	1	1	1	1	1	0	**12**	High
2025-KMUA-006	Public Education and Outreach	1	1	1	1	1	1	1	1	1	1	1	1	0	0	**12**	High

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

Action 2025-KMUA-001. HAPS Generator Replacement

Lead Agency:	KMUA
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	The current generator at the Harrison Avenue Pump Station is approaching the end of its useful life due to prolonged operation during Hurricane Sandy.
Description of the Solution:	The current generator at the Harrison Avenue Pump Station, originally constructed in the early 1990s, is slated for replacement with a Cummins LTA 10 G1, model 250 DFAC. In light of proposed additional customers within the station's service area, the overall capacity of the pump station is being reevaluated. This has prompted consideration of further electrical upgrades to support increased demand, along with resilient infrastructure improvements. Key obstacles to implementation include project cost, the need for a final build-out capacity analysis, and ongoing staff turnover within both the KMUA and the Authority's engineering team. The scope of work for upgrades at this facility is being expanded to address these evolving capacity and resilience needs.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA HMGP, Capital Improvement Plan
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,4,6,7
Benefits:	Ensures uninterrupted operation of critical wastewater infrastructure during power outages.
Impact on Socially Vulnerable Populations:	Reduces risk of sewage backups and service disruptions in vulnerable, flood-prone neighborhoods.
Impact on Future Development:	Supports resilient infrastructure needed for safe expansion in surrounding areas.
Impact on Critical Facilities/Lifelines:	Maintains essential sanitation services during emergencies, protecting public health and safety.
Impact on Capabilities:	Improves system reliability and emergency preparedness across multiple pumping stations.
Climate Change Considerations:	Enhances resilience to more frequent and severe storms that threaten power supply and infrastructure.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Emergency Services
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Microgrid	Costly and difficult to implement.
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-KMUA-002. SCADA Upgrades to Pump Stations

Lead Agency:	KMUA	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The SCADA system is outdated and in need of upgrades. It is not installed on all pumps part of KMUA.	
Description of the Solution:	Upgrade SCADA systems at all pump stations to enhance monitoring and operation during periods when the stations are otherwise inaccessible. Recent small-scale SCADA upgrades were completed at the Kearny Point Pump Station (KPPS), marking initial progress toward modernizing system monitoring and control. Additional SCADA enhancements are currently proposed for the BAPS and MSLA 1-D pump stations as part of an ongoing project. Remaining phases include the full integration of all pump stations into a centralized SCADA network and the removal of the outdated pneumatic air bubbler system at KPPS, which no longer provides accurate readings. Project implementation has faced challenges due to staff turnover within both the KMUA and the Authority's engineering team.	
Estimated Cost:	High	
Potential Funding Sources:	EPA Clean Water Fund Program; EPA Safe Drinking Water Loan Program; Capital Improvement Plan	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3,4,6,7	
Benefits:	Continuity of operations; understanding of system status	
Impact on Socially Vulnerable Populations:	Improves reliability of water services, reducing health and safety risks during extreme weather events.	
Impact on Future Development:	Supports growth by ensuring modern, resilient infrastructure that can handle increased demand.	
Impact on Critical Facilities/Lifelines:	Enhances monitoring and control of water systems, reducing service interruptions to hospitals, shelters, and emergency services.	
Impact on Capabilities:	Boosts operational efficiency, real-time response, and system diagnostics for utility managers.	
Climate Change Considerations:	Prepares infrastructure for more frequent and intense storms by enabling faster, data-driven responses to flooding and system stress.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection, Emergency Services, Preventative Measures	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Manual monitoring and control	Slow reaction time, labor intensive
	Partial upgrades	Short term fix

Action 2025-KMUA-003. KMUA Storm Sewer Rehabilitation

Lead Agency:	KMUA
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Storm sewer system rehabilitation necessary to alleviate flooding in the area and must be investigated
Description of the Solution:	Conduct a comprehensive investigation and mapping of the storm sewer system within the district, including condition assessments and rehabilitation planning, to confirm the separation of storm and sanitary sewers. The project scope requires further breakdown and includes an Inflow and Infiltration (I&I) study, dry and wet weather investigations, smoke and dye testing, and customer outreach to gather plans and connection details to KMUA facilities. Accurate GIS mapping and identification of areas in need of rehabilitation are also essential components. Future projects will be considered based on findings from the I&I study to address areas requiring upgrades. Key obstacles include project cost, availability of funding opportunities, staff turnover within KMUA and the Authority's engineering team, and the poor quality of existing facility maps and record data.
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP, Capital Improvement Plan
Implementation Timeline:	1-5 years
Goals Met:	1,2,3,4,6,7
Benefits:	Increase capacity; reduce flooding; continuity of operations.
Impact on Socially Vulnerable Populations:	Sewer improvements can reduce health risks from sewage backups and flooding, improving living conditions.
Impact on Future Development:	Enhanced sewer infrastructure increases the feasibility of new residential and commercial developments in previously flood-prone areas.
Impact on Critical Facilities/Lifelines:	Improved sewer systems reduce the risk of service disruptions to hospitals, schools, emergency services, and utilities located in low-lying areas.
Impact on Capabilities:	Strengthens the Town's ability to manage stormwater and wastewater, especially during heavy rainfall.
Climate Change Considerations:	Prepares the Town for more frequent and intense rainfall events associated with climate change.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	Medium

Alternatives	**Action**	**Evaluation**
	No Action	-
	Temporary pump stations	Short-term fix
	Elevating structures in flood prone areas	Costly, and doesn't address the root cause

Action 2025-KMUA-004. Extreme Temperatures on Equipment

Lead Agency:	KMUA	
Supporting Agencies:	-	
Hazards of Concern:	Extreme Temperature	
Description of the Problem:	Extreme temperatures pose significant risks to equipment functionality, staff safety, and facility accessibility—particularly for operations that run 24/7.	
Description of the Solution:	To address these challenges, a comprehensive emergency planning strategy for extreme temperature events will be developed. This includes upgrading SCADA systems to enable remote monitoring and control, installing temperature-controlled environments at critical facilities to protect staff and sensitive equipment, and ensuring reliable access during adverse weather conditions.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA HMGP, Capital Improvement Plan	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6	
Benefits:	Reduced risk of equipment failure due to temperature extremes.	
Impact on Socially Vulnerable Populations:	Ensuring uninterrupted essential services during extreme weather events, which disproportionately affect vulnerable populations with limited resources or mobility.	
Impact on Future Development:	Supports sustainable growth by ensuring infrastructure can handle increased demand and climate-related stressors, making the area more attractive for residential and commercial development.	
Impact on Critical Facilities/Lifelines:	Directly enhances the resilience of critical infrastructure, including pump stations and control centers, which are essential for water and wastewater management.	
Impact on Capabilities:	Enhances data collection and system diagnostics through SCADA upgrades.	
Climate Change Considerations:	Addresses increasing frequency and intensity of extreme heat events due to climate change. Supports climate adaptation by improving infrastructure resilience and reducing vulnerability to temperature-related disruptions.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection, Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Temporary cooling/heating solutions	Short-term fix
	Manual monitoring	Delayed response, staff would be exposed to hazardous conditions

Action 2025-KMUA-005. Pump Station in Special Flood Hazard Area

Lead Agency:	KMUA
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	All KMUA Pump stations- Bergen Ave, Harrison Ave, Pennsylvania Ave, and Kearny Point are at risk of being flooded for being at a low elevation. Access to stations is critical 24/7.
Description of the Solution:	The KMUA will conduct a feasibility assessment to determine what additional floodproofing measures are needed at Bergen Ave, Harrison Ave, Pennsylvania Ave, and Kearny Point to protect each to the 500-year flood level. Options include: • Elevation of facility • Floodproofing of facility • Mobile flood barriers Once the most cost-effective option is identified, the KMUA will carry out the option.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA HMGP, Capital Improvement Plan
Implementation Timeline:	1-5 years
Goals Met:	6
Benefits:	Ensures continuity of operations of pump stations at Bergen Ave, Harrison Ave, Pennsylvania Ave, and Kearny Point
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders and emergency managers to maintain critical services that socially vulnerable populations rely on.
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.
Impact on Critical Facilities/Lifelines:	This action will protect pump stations at Bergen Ave, Harrison Ave, Pennsylvania Ave, and Kearny Point which are critical facilities, maintaining the critical services that it provides.
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.
Climate Change Considerations:	This action addresses anticipated increases in flooding frequency and severity through protection to the 500-year (0.2-percent annual chance) flood level.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Emergency Services, Property Protection
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-

	Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area
	Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.

Action 2025-KMUA-006. Public Education and Outreach

Lead Agency:	KMUA	
Supporting Agencies:	-	
Hazards of Concern:	Flood, Severe Weather	
Description of the Problem:	The KMUA currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about storm mitigation, preparation, response, and recovery.	
Description of the Solution:	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Town of Kearny and Hudson County on their program that provides information to the municipalities.	
Estimated Cost:	Low	
Potential Funding Sources:	KMUA Budget	
Implementation Timeline:	1-5 years	
Goals Met:	5	
Benefits:	This action will improve the current public education and outreach program in the KMUA by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resilience of KMUA.	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards that may impact them.	
Impact on Future Development:	Not Applicable	
Impact on Critical Facilities/Lifelines:	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.	
Impact on Capabilities:	This action would build upon the KMUA's already existing public education and outreach program.	
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 business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.	
Mitigation Category	Education and Awareness	
CRS Category	Public Information	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the KMUA
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving guidance

17. NORTH BERGEN MUNICIPAL UTILITIES AUTHORITY

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the participating special districts with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of North Bergen Municipal Utilities Authority (NBMUA), describes who participated in the planning process, assesses NBMUA's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

17.1 Hazard Mitigation Planning Team

The North Bergen Municipal Utilities Authority identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many County departments. The executive director represented the NBMUA on the Hudson County HMP Planning Partnership and Steering Committee and supported the local planning process 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.

Table 17-1 summarizes the NBMUA officials who participated in the development of the annex and in what capacity. Additional documentation of the NBMUA's planning activities through Planning Partnership meetings is included in Volume I.

Table 17-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Frank Pestana, Executive Director Address: 6200 Tonnelle Ave, North Bergen, NJ 07047 Phone Number: 201-422-0100 Email: fpestana@nbmua.com	Name/Title: Carlos Torres, Director of Operations & Maintenance Address: 6200 Tonnelle Ave, North Bergen, NJ 07047 Phone Number: 201-422-0100, ext 289 Email: ctorres@nbmua.com
National Flood Insurance Program Floodplain Administrator	
Please see Chapter 10, the Town of North Bergen Annex	
Additional Contributors	
Name/Title: David Ricigliano, OEM Coordinator Method of Participation: Participated in the planning process and provided information for requested worksheets.	
Name/Title: Bernard Mirandi, PE, CME, Consulting Engineer Method of Participation: Participated in the planning process and provided information for requested worksheets.	
Name/Title: Giselle Diaz, PE, Consulting Engineer Method of Participation: Participated in the planning process and provided information for requested worksheets.	

17.2 Community Profile

The North Bergen Municipal Utilities Authority (NBMUA) wastewater department is responsible for the collection of wastewater from the Townships of North Bergen, Guttenberg and a small portion of Union City. Approximately 3 million gallons a day from Guttenberg as well as the north-eastern portion of North Bergen is treated at the Woodcliff Treatment Plant in North Bergen and discharged into the Hudson River in accordance with our New Jersey Department of Environmental Protection (NJDEP) permit. The remainder of the Township's wastewater, approximately 7 million gallons a day, is pumped to the Passaic Valley Sewerage Commission in Newark for final treatment. The NBMUA maintains four pump stations as well as nine CSO Netting Facilities throughout the municipality that capture and remove approximately 35 tons per year of sanitary and street litter that would otherwise wash into the rivers during rain events, also in accordance with our NJDEP permit (NBMUA 2025).

The NBMUA services an area of 5.82 square miles, (North Bergen and Guttenberg) with a population of 75,378 (2020 U.S. Census).

NBMUA facilities are located on approximately 10 acres of NBMUA owned land. The NBMUA owns and operates approximately 80 miles of combined and separate sewer system, ranging in size from 6" to 72" diameter, 25 static regulators and 11 dynamic regulators. This critical infrastructure is valued at approximately $100 million.

17.3 Jurisdictional Capability Assessment and Integration

NBMUA performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

17.3.1 Planning and Regulatory Capability and Integration

Table 17-2 summarizes the planning and regulatory tools that are available to the North Bergen Municipal Utilities Authority.

Table 17-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	NJAC 5.3 (2009)	State and Local	Building Department
How has or will this be integrated with the HMP and how does this reduce risk? The Township of North Bergen enforces the New Jersey State Codes as listed below. Building Code: • Uniform Construction Code – N.J.A.C. 5:23 • International Residential Code – N.J. 2021 EDITION • International Building Code – N.J. 2021 EDITION Plumbing: • National Standard Plumbing Code – 2021 EDITION • International Fuel Gas Code – 2021 EDITION • International Mechanical Code – 2021 EDITION • ICC/ANSI – 2017 (Accessibility) Electric: • National Electrical Code – 2020 EDITION Fire Prevention / Uniform Fire Code: • International Fire Code New Jersey Edition - 2021 Property Maintenance: International Property Maintenance Code – 2021 EDITION				
Zoning/Land Use Code	Yes	Title 1.1, Zoning Ordinance Ap. 6/99.	Local	Building Department
Part of North Bergen ordinance, the jurisdiction reviews the hazard mitigation plan and other hazard analyses to ensure consistent and compatible land use.				
Subdivision Code	Yes	69-84, Site Plan Review Requirements (12/6/84).	Local	Engineering Department
Consider the following: • Do the subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas? • Do the regulations provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources? • Do the regulations allow density transfers where hazard areas exist?				
Site Plan Code	Yes	69-84, Site Plan Review Requirements (12/6/84).	Local and County	Engineering Department
Part of North Bergen's code – please refer to the township's jurisdictional annex.				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Stormwater Management Code	Yes	1013-05 Stormwater Control (4/27/05).	Local	Engineering Department
Part of North Bergen's code – please refer to the township's jurisdictional annex.				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Growth Management	Yes	Master Plan 4/99	Local	Township Administration
Part of North Bergen's capabilities – please refer to the township's jurisdictional annex.				
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Flood Damage Prevention Ordinance	Yes	1065-06 (6/14/06)	Federal, State, County and Local	Engineering Department
Part of North Bergen's ordinance – please refer to the township's jurisdictional annex.				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive/Master Plan	Yes	Master Plan 4/99	Local	Building Department
How has or will this be integrated with the HMP and how does this reduce risk? The Master Plan was first adopted in 1987 and updated in 1994. A reexamination report was conducted in 2003 and 2009. The Housing Element and Fair Share Plan was added and adopted in 2009. The goals of the reexamination report are similar to those of the County's Hazard Mitigation Plan (ensure that any prospective development and/or redevelopment is responsive to North Bergen's environmental features). To achieve this goal, the Township's reviewing agencies undertake substantive reviews of all development applications to ensure that environmental impacts of proposed developments are scrutinized and addressed. During the next master plan update, the Township should review the County HMP and incorporate hazard areas into the plan.				
Capital Improvement Plan	Yes	Master Plan 4/99	Local	Township Administration
How has or will this be integrated with the HMP and how does this reduce risk?				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Stormwater Management Plan	Yes	Municipal Stormwater Management Plan, 2/2007	Local	Engineering Department
How has or will this be integrated with the HMP and how does this reduce risk? The goals of the plan include reducing flood damage including damage to life and property; minimize any increase in stormwater runoff from any new development; reducing soil erosion from any development or construction project; and maintain the integrity of stream channels for their biological functions as well as for drainage. The Township is working on incorporating several non-structural stormwater strategies into the zoning and site plan ordinances. These non-structural strategies will help reduce flooding and damage to life and property associated with flooding. To minimize stormwater runoff, the Residential Site Improvement Standards require a reduction in runoff during all rain events for residential developments. Commercial developments are required to follow NJAC 7:8 and 7:15. To reduce soil erosion, all development projects must obtain approval from the Bergen County Soil Conservation District if their area of disturbance is over 5,000 square feet. There are several maps that are part of the plan and include freshwater wetlands/water land uses, and floodplains.				
Stormwater Pollution Prevention Plan	Yes	Municipal Stormwater Pollution Prevention Plan, 05/21/2020	Local	Engineering Department
Part of North Bergen's capabilities - please refer to the township's jurisdictional annex.				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other: Shoreline Management Plan	Yes	Township of North Bergen Shoreline Management Plan	State, Local	Building Department
Plan is prepared by the Township of North Bergen – please refer to the township's jurisdictional annex.				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	Yes	Emergency Response Plan	Local	Community Affairs and Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? The OEM has detailed information covering preparedness, response, mitigation and recovery from a disaster that may occur within the Township. The North Bergen Township Emergency Operations Plan is approved by the New Jersey State OEM and focuses on the following areas: 01. Alerting and Warning 02. Fire and Rescue activities 03. Law Enforcement activities 04. Public Health awareness 05. Emergency Medical Services 06. Evacuation procedures 07. Shelter Reception and Care 08. Social Services 09. Resource Management 10. Coordination with the media 12. Department of Public Works activities 13. Emergency Operations Center coordination 14. Damage Assessments of public infrastructure and buildings 15. Handling of Hazardous Materials 16. Terrorism Incidents 17. Radiological Protection				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

17.3.2 Development and Permitting Capability

Table 17-3 summarizes the capabilities of the NBMUA to oversee and track development.

Table 17-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	Yes	The Township issues building permits through the Building Department. It should be noted that part of the Township makes up NJSEA. For development within NJSEA boundaries, any proposed development needs to be approved first by NJSEA then the Township.
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	The Township currently does not have the ability to track permits by hazard area.
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	Yes	
Describe the level of buildout in your jurisdiction.	N/A	The Township has a buildable lands inventory. This is done through the master plan and the administration department

17.3.3 Administrative and Technical Capability

Table 17-4 summarizes potential staff and personnel resources available to the NBMUA and their current responsibilities that contribute to hazard mitigation.

Table 17-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	Planning Board
Zoning Board of Adjustment	Yes	Board of Adjustment
Planning Department	No	Planning responsibilities are handled by Jill Hartman (L & C Design Consultants, PA)
Mitigation Planning Committee	Yes	Local Emergency Planning Committee
Environmental Board/Commission	Yes	The Township of North Bergen Green Team is derived of township officials, DPW, Sanitation, Health, Police, and schools. The Green Team conducts education, actions, and efforts to address energy and sustainability.
Open Space Board/Committee	No	
Economic Development Commission/Committee	No	
Public Works/Highway Department	Yes	Public Works is responsible for street sweeping, salting, pothole repair, and sewerage and stormwater system maintenance.
Construction/Building/Code Enforcement Department	Yes	Building/Code Enforcement/Zoning
Emergency Management/Public Safety Department	Yes	The Department of Public Safety is responsible for police protection. The department is also responsible for the overall planning and coordination of programs related to the protection of the public, including, but not limited to, various educational programs and administration of grants relating to law enforcement. The North Bergen Office of Emergency Management focuses on the protection of life and property for all residents, businesses, visitors and the traveling public. OEM provides protection through the latest body of knowledge and current Emergency Management practices as set forth in federal, state, and county regulations. OEM personnel provide protection through study, planning and application of all phases of Emergency Management, while concentrating on mitigation, preparedness, response and recovery. OEM fosters the "TEAM" approach through education, coaching and partnering with each member. Members include municipal officials, the Emergency Management Council, the Local Emergency Planning Committee, emergency services and all municipal departments as outlined in the Townships Emergency Operations Plan. OEM will provide direction and obtain resources to members of the TEAM in events such as natural and technological disasters. OEM will provide coordination and assistance to police, fire, rescue, emergency medical and municipal government.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	General maintenance of roads, trees, catch basins, etc. to help reduce storm impacts and damages. The Township retrofits all

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		existing inlets with NJDEP approved curb pieces to help limit debris in the stormwater system and prevent blockages.
Mutual aid agreements	Yes	Surrounding municipalities, Hudson County, UASI
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	
Other	No	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	Boswell Engineering
Engineers or professionals trained in building or infrastructure construction practices	Yes	Boswell Engineering
Planners or engineers with an understanding of natural hazards	Yes	Boswell Engineering
Staff with expertise or training in benefit/cost analysis	Yes	Township of North Bergen, CFO, Contract support
Professionals trained in conducting damage assessments	Yes	Boswell Engineering
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Boswell Engineering
Staff that work with socially vulnerable populations or underserved communities	Yes	Karen Pianese
Environmental scientists familiar with natural hazards	Yes	Boswell Engineering
Surveyors	Yes	Boswell Engineering
Emergency manager	Yes	David Ricigliano
Grant writers	Yes	Millennium Strategies
Resilience Officer	No	
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

17.3.4 Fiscal Capability

Table 17-5 summarizes financial resources available to the NBMUA.

Table 17-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	Yes
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No
Other: Municipal Aid Grants each year; apply for LFIF (local infrastructure); Safe Streets to School program; pedestrian crossing grants as well; Board of Education receives grants as well	Yes

17.3.5 Education and Outreach Capability

Table 17-6 summarizes the education and outreach resources available to the NBMUA.

Table 17-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Full time staff member
Personnel skilled or trained in website development	Yes	Township staff and contractors
Hazard mitigation information available on your website	Yes	Located on the OEM section of the Township website. Information includes hurricane warnings online, develop safety kits, etc.
Social media for hazard mitigation education and outreach	Yes	The Township uses Facebook and Twitter
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Township Office of Emergency Management

Outreach Resources	Available? (Yes/No)	Comment
Warning systems for hazard events	Yes	Everbridge, reverse 911, the police department uses digital message boards, County has air horns that are used during emergencies as well. The Township is looking into a Nixle-type program for traffic conditions. They will use this program to issue traffic warnings during flood events, road repairs, and construction.
Natural disaster/safety programs in place for schools	Yes	Township Emergency Operations Plan
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	Hispanic Affairs Community Service Program
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	North Bergen (NB) Connect Notification System which enables the Township of North Bergen to provide critical information quickly in a variety of situations, such as severe weather, unexpected road closures, missing persons, and evacuation of buildings or neighborhoods.

17.3.6 Community Classifications

Table 17-7 summarizes classifications for community programs available to the NBMUA.

Table 17-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	IBC	2015
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Sustainable Jersey	Yes	Bronze	9/12/2023
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

17.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and

changing risk. Table 17-8 summarizes the adaptive capacity for each identified hazard of concern and the North Bergen Municipal Utilities Authority'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 17-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam/Levee	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Strong
Geologic Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

17.4 National Flood Insurance Program Compliance

The NBMUA does not participate in the NFIP. For NFIP compliance with the Town of North Bergen, please refer to the Town's annex (Chapter 10).

17.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 17-9 through Table 17-11.

Table 17-9. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
The North Bergen Municipal Utilities Authority is not responsible for permitting new construction. Permitting is the responsibility of the Town of North Bergen.				

Table 17-10. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

Table 17-11. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

17.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of the North Bergen Municipal Utilities Authority's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

17.6.1 Hazard Area

Hazard area maps illustrate the probable hazard areas impacted within the County, to include NBMUA. These hazard maps are shown in Volume 1 of this plan within the hazard profiles. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Hudson has significant exposure. The maps show the location of potential new development, where available.

17.6.2 Hazard Event History

The history of natural and non-natural hazard events in the NBMUA is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 17-12 provides details on loss and damage in the NBMUA during hazard events since the last hazard mitigation plan update.

Table 17-12. Hazard Event History in Hudson

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in North Bergen
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The MUA did not have any reported damages or claims to their assets and facilities.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	The MUA did not have any reported damages or claims to their assets and facilities.
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The MUA did not have any reported damages or claims to their assets and facilities.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	The MUA did not have any reported damages or claims to their assets and facilities.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	The MUA did not have any reported damages or claims to their assets and facilities.
November 15, 2020	Heavy Rains and Tornado	No	Buildings damaged, fences and trees flattened.	The MUA did not have any reported damages or claims to their assets and facilities.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in North Bergen
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours.This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	The MUA did not have any reported damages or claims to their assets and facilities.
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	The MUA did not have any reported damages or claims to their assets and facilities.
February 24, 2022	Winter Storm	No	Snow and winds forecast required a township delayed opening.	The MUA did not have any reported damages or claims to their assets and facilities.
November 11, 2022	Remnants of Hurricane Nicole	No	Heavy winds and rain.	The MUA did not have any reported damages or claims to their assets and facilities.
December 23, 2022	Forecast Heavy Rains/ Flooding	No	Storm prompted the Hackensack/PGH hospital to activate command center.	The MUA did not have any reported damages or claims to their assets and facilities.
April 30,2023	Heavy Rains and Winds	No	Storm caused an uptown power outage.	The MUA did not have any reported damages or claims to their assets and facilities.
June 7, 2023	Canadian Wildfires	No	Poor air quality.	The MUA did not have any reported damages or claims to their assets and facilities.
September 29,2023	Heavy Rains	No	Numerous roads flooded and closes, motorists stranded and rescued.	The MUA did not have any reported damages or claims to their assets and facilities.
December 13, 2023	Landslide	No	Rock collapse on the Palisades requiring evacuations.	The MUA did not have any reported damages or claims to their assets and facilities.
January 9, 2024	Heavy Rains	No	Numerous road closures, trees and wires down, flooding	The MUA did not have any reported damages or claims to their assets and facilities.

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in North Bergen
March 23, 2024	Heavy Rains	No	Roadways flooded and closed; motorists stranded.	The MUA did not have any reported damages or claims to their assets and facilities.
April 3, 2024	Heavy Rain and Winds	No	Multiple trees and wires down, building damage.	The MUA did not have any reported damages or claims to their assets and facilities.
April 5, 2024	Earthquake	No	Tremors felt in the tri-state area during a 4.7 earthquake event in New Jersey.	The MUA did not have any reported damages or claims to their assets and facilities.

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

17.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for the NBMUA.

17.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. The North Bergen Municipal Utilities Authority reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the NBMUA indicated the following:

- Geological hazards changed from low to medium. The Town of North Bergen indicated that there have been a few rockslides along the Palisades Cliffs down towards properties fronting River Rd.

Table 17-13 shows Hudson's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 17-13. Hazard Ranking

Hazard	Rank
Dam/Levee Failure	Low
Drought	Medium
Extreme Temperature	Low
Flood	High
Geological Hazards	Medium

Hazard	Rank
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

17.6.3.2 Critical Facilities

Table 17-14 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 17-14. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
61St St Ps (Controls)-PS03	Wastewater Pump	-	X
61St St Ps (Pumps)-PS03	Wastewater Pump	-	X
61St St Ps (Wet Well)-PS03	Wastewater Pump	-	X
61St St Ps-PS03	Wastewater Pump	-	X
8Th Street Fm Air Release-PS02	Wastewater Pump	-	X
8Th Street Ps-PS02	Wastewater Pump	X	X
Central Ps-PS01	Wastewater Pump	X	X
Meter (Central Ps)-PS01	Wastewater Pump	X	X
Woodcliff P.S (River Rd)-PS01W	Wastewater Pump	X	X
Woodcliff Sewage Treatment Plant	Wastewater Treatment	X	X

Source: Hudson County; HIFLD; NJGIN

17.6.4 Identified Issues

- After review of the NBMUA's hazard event history, hazard rankings, hazard location, and current capabilities, Hudson identified the following vulnerabilities within the community:
- Flooding during Rain/storm events coupled with tide cycle cause flooding along West Side Ave to 91st Street / Fairview Ave and Railroad Ave.
- West 91st Street constantly floods during rain and storm events.
- The 8th Street Pump Station #2 is located within the 1% annual chance flood area and susceptible to flood damage. The station is identified as a critical facility and lifeline as it provides services to North Bergen Township.

- The area around Tonnelle Avenue and 83rd to 85th Streets experiences frequent flooding and combined sewer overflows during heavy rain events, leading to public health risks, property damage, and service disruptions.
- The area around West Side Avenue and 43rd Street experiences frequent combined sewer overflows during heavy rainfall, leading to localized flooding, environmental contamination, and public health concerns.

17.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

17.7.1 Past Mitigation Action Status

Table 17-15 indicates progress on the County's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

17.7.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 17-15, Hudson identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

Table 17-15. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-NBMUA-001	Tide gate pump station Fairview Ave./Railroad Ave	Coastal Storm, Severe Weather, Flood, Severe Winter Weather	North Bergen Engineering, North Bergen MUA with support from Hudson County Engineering	**Problem**: Flooding during Rain/storm events coupled with tide cycle cause flooding along West Side Ave to 91st Street / Fairview Ave and Railroad Ave. **Solution**: To mitigate flooding hazards caused by rain/storm events along the north western quadrant of the municipality. Install a pump station along West Side Avenue incorporating backflow preventers. Tide gates installed at Fairview Ave. / Railroad Ave. intersection and dredging of Bellman's Creek to prevent surcharge upstream between 91st Street and Railroad Ave. to reduce flooding in the area.	1.No Progress 2. -	1. Include 2. No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-NBMUA-002	Proposed stormwater diversion along culvert south of 91st Street	Coastal Storm, Severe Weather, Flood, Severe Winter Weather	North Bergen Engineering, North Bergen MUA with support from Hudson County Engineering	**Problem**: West 91st Street constantly floods during rain and storm events. **Solution**: Upsize approximately 1600 feet of stormwater piping to 91st Street.	1.No Progress 2. -	1. Include 2. No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-NBMUA-003	Pump station and tide gate along northwestern municipal quadrant	Coastal Storm, Severe Weather, Flood, Severe Winter Weather	North Bergen Engineering, North Bergen MUA with support from Hudson County Engineering	**Problem**: Flooding during Rain/storm events coupled with tide cycle cause flooding along West Side Ave to 91st Street / Fairview Ave and Railroad Ave. **Solution**: To mitigate flooding hazards caused by rain/storm events along the north western quadrant of the municipality. Install a pump station along West Side Avenue incorporating backflow preventers. Tide gates installed at Fairview Ave. / Railroad Ave. intersection and dredging of Bellman's Creek to prevent surcharge upstream between 91st Street and Railroad Ave. to reduce flooding in the area.	1. - 2. -	1. Discontinue 2. - 3. This is the same action as 2020-NBMUA-001. This was listed twice in the last HMP. Will remove.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-NBMUA-004	Critical Facility – 8th Street Pump Station #2	Flood, Coastal Storm, Severe Storm	North Bergen MUA	**Problem**: The 8th Street Pump Station #2 is located within the 1% annual chance flood area and susceptible to flood damage. The station is identified as a critical facility and lifeline as it provides services to North Bergen Township. **Solution**: Install floodproof doors and elevate equipment, as necessary, to protect the pump station from flood damage.	1.No Progress 2. -	1. Include 2. No change 3. N/A

17.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Hudson participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Hudson would like to pursue in the future to reduce the effects of hazards. The actions 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.

Table 17-16 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 17-17 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 17-16. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure										
Drought										
Extreme Temperatures										
Flood		X			X	X		X	X	X
Geological Hazards										
Severe Weather		X			X	X		X	X	X
Severe Winter Weather										
Wildfire										

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 17-17. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-NBMUA-001	Tide Gate Pump Station	1	1	1	1	1	0	0	1	1	1	1	1	1	0	**11**	High
2025-NBMUA-002	Stormwater Piping	0	1	1	1	1	0	0	1	1	1	1	1	1	0	**10**	Medium
2025-NBMUA-003	Critical Facility – 8th Street Pump Station #2	1	1	1	1	1	0	0	1	1	1	1	1	1	0	**11**	High
2025-NBMUA-004	CSO Tank – Tonnelle Ave & 83rd Street	1	1	1	1	1	0	1	1	1	1	1	1	1	0	**12**	High
2025-NBMUA-005	CSO Tank – West Side Ave & 43rd Street	1	1	1	1	1	0	1	1	1	1	1	1	1	0	**12**	High

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

Action 2025-NBMUA-001. Tide Gate Pump Station

Lead Agency:	North Bergen Engineer
Supporting Agencies:	NBMUA
Hazards of Concern:	Flood, Severe Weather, Severe Winter Weather
Description of the Problem:	Flooding during Rain/storm events coupled with tide cycle cause flooding along West Side Ave to 91st Street / Fairview Ave and Railroad Ave.
Description of the Solution:	To mitigate flooding hazards caused by rain/storm events along the north western quadrant of the municipality. West Side Avenue incorporating backflow preventers. Tide gates installed at Fairview Ave. / Railroad Ave. intersection and dredging of Bellman's Creek to prevent surcharge upstream between 91st Street and Railroad Ave. to reduce flooding in the area.
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP, Municipal and County Budget
Implementation Timeline:	1-5 years
Goals Met:	2,6
Benefits:	Western business including warehouses and trucking facilities along with the municipal rec complex will remain undisturbed during rain and storm events.
Impact on Socially Vulnerable Populations:	This action will enhance safety and accessibility for socially vulnerable populations who may have limited resources to recover from flood-related damages, thereby improving community resilience.
Impact on Future Development:	The implementation of flood mitigation infrastructure will support sustainable future development by reducing flood risk in a key area, encouraging investment and long-term planning in safer, more resilient locations.
Impact on Critical Facilities/Lifelines:	By mitigating flooding near West Side Avenue and surrounding areas, the project helps protect nearby critical facilities and lifelines, such as transportation routes and emergency services, ensuring continued functionality during storm events.
Impact on Capabilities:	This action enhances local flood management capabilities by incorporating engineered solutions such as backflow preventers and tide gates, and by improving waterway capacity through dredging, thereby strengthening the municipality's overall hazard mitigation strategy.
Climate Change Considerations:	The project addresses anticipated increases in storm intensity and tidal influence under expected future conditions, making the area more resilient to evolving environmental stressors and reducing the likelihood of future flood-related disruptions.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection, Structural Flood Control Projects, Natural Resource Protection
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Elevating roadways and infrastructure	Costly
	Constructing large retention basin or pond	Would not address the full issue

Action 2025-NBMUA-002. Stormwater Piping

Lead Agency:	North Bergen Engineer	
Supporting Agencies:	NBMUA	
Hazards of Concern:	Flood, Severe Weather, Severe Winter Weather	
Description of the Problem:	West 91st Street constantly floods during rain and storm events.	
Description of the Solution:	Upsize approximately 1600 feet of stormwater piping to 91st Street.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA PDM, Municipal and County Budgets	
Implementation Timeline:	1-5 years	
Goals Met:	2,3,6	
Benefits:	Reduce loss and vulnerability to flooding in commercial section of Township.	
Impact on Socially Vulnerable Populations:	Improved stormwater infrastructure will reduce flood-related disruptions and property damage in the area, benefiting socially vulnerable populations who may have limited capacity to recover from such events.	
Impact on Future Development:	Enhanced drainage capacity supports future development by reducing flood risk, making the area more attractive and viable for residential and commercial investment.	
Impact on Critical Facilities/Lifelines:	This action will help maintain access and operational continuity during storm events for critical facilities and lifelines.	
Impact on Capabilities:	The project strengthens municipal stormwater management capabilities by upgrading aging infrastructure to meet current and projected needs.	
Climate Change Considerations:	The upsized stormwater system is designed to accommodate more intense and frequent rainfall events expected under future environmental conditions, enhancing long-term resilience.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	Medium	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Installing permeable pavement	Not sufficient for managing a large volume of water during heavy rain events.
	Stormwater retention basin	Requires significant open space; may not provide timely relief

Action 2025-NBMUA-003. Critical Facility – 8th Street Pump Station #2

Lead Agency:	NBMUA
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Storm
Description of the Problem:	The 8th Street Pump Station #2 is located within the 1% annual chance flood area and susceptible to flood damage. The station is identified as a critical facility and lifeline as it provides services to North Bergen Township.
Description of the Solution:	Install floodproof doors and elevate equipment, as necessary, to protect the pump station from flood damage.
Estimated Cost:	Medium
Potential Funding Sources:	FEMA HMGP, MUA Budget
Implementation Timeline:	1-5 years
Goals Met:	3,6
Benefits:	Continuity of operations, protection from flood damage
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders and emergency managers to maintain critical services that socially vulnerable populations rely on.
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.
Impact on Critical Facilities/Lifelines:	This action will protect 8th Street Pump Station #2 which is a critical facility, maintaining the critical services that it provides.
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.
Climate Change Considerations:	Future environmental conditions are expected to increase both the frequency and intensity of extreme weather events, including heavy rainfall and coastal or tidal flooding.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection, Emergency Services
Priority	High

Alternatives	**Action**	**Evaluation**
	No Action	-
	Relocating the pump station to higher ground	Costly, logistically complex
	Building a perimeter floodwall around the station	May not be sufficient during extreme flood events

Action 2025-NBMUA-004. CSO Tank – Tonnelle Ave & 83rd Street

Lead Agency:	NBMUA	
Supporting Agencies:	-	
Hazards of Concern:	Flooding, Severe Weather	
Description of the Problem:	The area around Tonnelle Avenue and 83rd to 85th Streets experiences frequent flooding and combined sewer overflows during heavy rain events, leading to public health risks, property damage, and service disruptions.	
Description of the Solution:	Install a new Combined Sewer Overflow (CSO) storage tank at the corner of Tonnelle Avenue and 83rd Street. The project also includes the installation of new stormwater piping along Tonnelle Avenue, 84th Street, and 85th Street, as well as a new flow regulator at the intersection of Tonnelle Avenue and 84th Street to manage stormwater and reduce overflow incidents.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA HMGP, MUA Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6	
Benefits:	The project will reduce combined sewer overflows, improve public health and water quality, enhance stormwater capacity, and protect nearby infrastructure and properties from flood damage.	
Impact on Socially Vulnerable Populations:	Reduces exposure to flood-related health hazards and property damage in densely populated, lower-income neighborhoods that may lack resources for recovery.	
Impact on Future Development:	Improved stormwater infrastructure supports safe and sustainable development in the area by reducing flood risk and increasing system capacity.	
Impact on Critical Facilities/Lifelines:	Helps maintain access and functionality of nearby transportation routes and utility services during storm events.	
Impact on Capabilities:	Strengthens municipal stormwater and wastewater management capabilities through modernized infrastructure and improved flow control.	
Climate Change Considerations:	The project is designed to accommodate increased rainfall intensity and frequency expected under future climate conditions, enhancing long-term resilience.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Preventative Measures	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Install green infrastructure	Insufficient capacity during heavy rain events
	Temporary mobile or modular tanks	Not reliable long-term

Action 2025-NBMUA-005. CSO Tank – West Side Ave & 43rd Street

Lead Agency:	NBMUA	
Supporting Agencies:	-	
Hazards of Concern:	Flooding, Severe Weather	
Description of the Problem:	The area around West Side Avenue and 43rd Street experiences frequent combined sewer overflows during heavy rainfall, leading to localized flooding, environmental contamination, and public health concerns.	
Description of the Solution:	Install a new Combined Sewer Overflow (CSO) storage tank at the corner of West Side Avenue and 43rd Street to increase system capacity and reduce the frequency and severity of overflow events during storm conditions.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA HMGP, MUA Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,6	
Benefits:	The project will reduce combined sewer overflows, improve public health and water quality, enhance stormwater capacity, and protect nearby infrastructure and properties from flood damage.	
Impact on Socially Vulnerable Populations:	Reduces exposure to flood-related health hazards and property damage in densely populated, lower-income neighborhoods that may lack resources for recovery.	
Impact on Future Development:	Improved stormwater infrastructure supports safe and sustainable development in the area by reducing flood risk and increasing system capacity.	
Impact on Critical Facilities/Lifelines:	Helps maintain access and functionality of nearby transportation routes and utility services during storm events.	
Impact on Capabilities:	Strengthens municipal stormwater and wastewater management capabilities through modernized infrastructure and improved flow control.	
Climate Change Considerations:	The project is designed to accommodate increased rainfall intensity and frequency expected under future climate conditions, enhancing long-term resilience.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Preventative Measures	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Install green infrastructure	Insufficient capacity during heavy rain events
	Temporary mobile or modular tanks	Not reliable long-term

18. NORTH HUDSON SEWERAGE AUTHORITY

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the participating special districts with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of North Hudson Sewerage Authority (NHSA), describes who participated in the planning process, assesses NHSA's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

18.1 Hazard Mitigation Planning Team

The North Hudson Sewerage Authority identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many County departments. The executive director represented the NHSA on the Hudson County HMP Planning Partnership and Steering Committee and supported the local planning process 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.

Table 18-1 summarizes the NHSA officials who participated in the development of the annex and in what capacity. Additional documentation of the NHSA's planning activities through Planning Partnership meetings is included in Volume I.

Table 18-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Richard Wolff, Executive Director Address: 1600 Adams Street, Hoboken, NJ 07030 Phone Number: 201-963-0643 Email: rwolff@nhudsonsa.com	Name/Title: Amanda Martino, Grant Rite Management Corp. Address: 300 Cypress St Unit 622, Liverpool, NY 13088 Phone Number: 985-246-9552 Email: amartino@grantrite.com
National Flood Insurance Program Floodplain Administrator	
Please see Chapter 6, the City of Hoboken Annex	
Additional Contributors	
Name/Title: Laura DeFuria, Grant Rite Management Corp. Method of Participation: Participated in the planning process and provided information for requested worksheets.	

18.2 Community Profile

The North Hudson Sewerage Authority (NHSA) was formed in 1988 to serve as a regional conveyance, transmission, treatment and disposal authority for wastewater generated within the Hoboken, Union City and Weehawken area. In November 1996, North Hudson acquired the collection system, pump stations, regulators, outfalls, and the River Road Wastewater Treatment Plant (WWTP) in the Town of West New York, facilities that were previously owned by the West New York Municipal Utilities Authority. On February 1, 1998, North Hudson took ownership and full operation and

maintenance responsibilities of the collection systems in the cities of Hoboken, Union City, and Weehawken. The NHSA services a land area of 5.97 sq. miles, with a population of approximately 174,650 people.

The Adams Street WWTP treats all of the sewage generated within the City of Hoboken. Based on historical billed-for water use, approximately 83 percent of the sewage generated in Weehawken and 45 percent of the sewage generated in Union City is treated at the Adams Street WWTP. The River Road WWTP treats all sewage generated in the Town of West New York, approximately 17 percent of sewage generated in Weehawken, and 23 percent of sewage generated in Union City. The remaining sewage generated in Union City (with exception of a small amount of sewerage conveyed to the North Bergen MUA) is conveyed to the Jersey City MUA for treatment at the Passaic Valley Sewerage Commissioners WWTP. North Hudson bills all of the customers in the four municipalities for sewage treatment service on the basis of metered water consumption and pays the owners of other wastewater agencies (Jersey City MUA and the North Bergen MUA) for the portion of sewage they handle.

North Hudson bills all of the customers in the four municipalities for sewage treatment service and pays the North Bergen Municipal Utilities Authority and the Jersey City Sewerage Authority for the portion of sewage they handle. North Hudson's billings are based on metered water consumption for all customers.

18.3 Jurisdictional Capability Assessment and Integration

NHSA performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

18.3.1 Planning and Regulatory Capability and Integration

Table 18-2 summarizes the planning and regulatory tools that are available to the North Hudson Sewerage Authority.

Table 18-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	No	-	State and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Zoning/Land Use Code	No	-	Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Subdivision Code	No	-	Local	
How has or will this be integrated with the HMP and how does this reduce risk?				
Site Plan Code	No	-	Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Code	No	-	Local	
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

Growth Management	No	-	Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Flood Damage Prevention Ordinance	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive/Master Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Capital Improvement Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Transportation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

18.3.2 Development and Permitting Capability

Table 18-3 summarizes the capabilities of the NHSA to oversee and track development.

Table 18-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	No/NA	-
Are permits tracked by hazard area? (For example, floodplain development permits.)	No/NA	-
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	No/NA	-
Describe the level of buildout in your jurisdiction.	N/A	

18.3.3 Administrative and Technical Capability

Table 18-4 summarizes potential staff and personnel resources available to the NHSA and their current responsibilities that contribute to hazard mitigation.

Table 18-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	No/NA	-
Zoning Board of Adjustment	No/NA	-
Planning Department	No/NA	-
Mitigation Planning Committee	No/NA	-
Environmental Board/Commission	No/NA	-
Open Space Board/Committee	No/NA	-
Economic Development Commission/Committee	No/NA	-
Public Works/Highway Department	No/NA	-
Construction/Building/Code Enforcement Department	No/NA	-
Emergency Management/Public Safety Department	No/NA	-
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Maintenance staff, manuals and regular schedules for routine upkeep of all equipment and conveyance system.
Mutual aid agreements	Yes	Police and fire
Human Resources Manual - Do any job descriptions specifically include identifying or	No	-

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
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	Contractual support and in-house staff
Engineers or professionals trained in building or infrastructure construction practices	Yes	Contractual support and in-house staff
Planners or engineers with an understanding of natural hazards	Yes	Contractual support and in-house staff
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	No / NA.	-
Environmental scientists familiar with natural hazards	No / NA.	-
Surveyors	No / NA.	-
Emergency manager	No / NA.	-
Grant writers	Yes	Contractual support and in-house staff
Resilience Officer	No / NA.	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Contractual support and in-house staff

18.3.4 Fiscal Capability

Table 18-5 summarizes financial resources available to the NHSA.

Table 18-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	Yes

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	No
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Yes

18.3.5 Education and Outreach Capability

Table 18-6 summarizes the education and outreach resources available to the NHSA.

Table 18-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	PIO for MUA
Personnel skilled or trained in website development	Yes	IT Department
Hazard mitigation information available on your website	Yes	MUA Website
Social media for hazard mitigation education and outreach	Yes	MUA Website
Citizen boards or commissions that address issues related to hazard mitigation	No / NA.	-
Warning systems for hazard events	Yes	MUA Website
Natural disaster/safety programs in place for schools	No / NA.	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No / NA.	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Public outreach / warning protocol through NHSA's website and social media accounts.

18.3.6 Community Classifications

Table 18-7 summarizes classifications for community programs available to the NHSA.

Table 18-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	3	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	1	-
National Weather Service StormReady Certification	No / NA.	-	-
Firewise Communities classification	No / NA.	-	-

Program	Participating? (Yes/No)	Classification	Date Classified
Sustainable Jersey	No / NA.	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	-	-	-

N/A = Not applicable
— = Unavailable

18.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 18-8 summarizes the adaptive capacity for each identified hazard of concern and the North Hudson Sewerage Authority'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 18-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam/Levee	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Strong
Geologic Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

18.4 National Flood Insurance Program Compliance

The NHSA does not participate in the NFIP. For NFIP compliance with the City of Hoboken, please refer to the City's annex (Chapter 6).

18.5 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. Recent and

expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 18-9 through Table 18-11.

Table 18-9. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
The North Hudson Sewerage Authority is not responsible for permitting new construction. Permitting is the responsibility of the City of Hoboken.				

Table 18-10. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

Table 18-11. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

18.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of the North Hudson Sewerage Authority's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

18.6.1 Hazard Area

Hazard area maps illustrate the probable hazard areas impacted within the County, to include NHSA. These hazard maps are shown in Volume 1 of this plan within the hazard profiles. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Hudson has significant exposure. The maps show the location of potential new development, where available.

18.6.2 Hazard Event History

The history of natural and non-natural hazard events in the NHSA is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 18-12 provides details on loss and damage in the NHSA during hazard events since the last hazard mitigation plan update.

Table 18-12. Hazard Event History in Hudson

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hudson
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Nothing to report
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	Provided dissemination of information to the public for management, control and reduction of immediate threats to public health and safety; Provided interior facility disinfection for Management, control and reduction of immediate threats to public health and safety Provide personal protective equipment, N95 mask, purchase of air purifiers, temperature screening equipment for facilities where activities were performed for management Force account Materials: $8,110.00 Contracts: $28,994.10 Work completed total: **$37,104.10**
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Nothing to report
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	Nothing to report

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hudson
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	Nothing to report
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	Debris Removal and clearing of Sewer Mains and Catch Basins; 18th street and Hackensack Plank rd, Weehawken, NJ 07086 • Force account Equipment; $4,691.75 • Contract: $67,533.24 Work Completed Total: $72,224.99 Emergency Protective Measures-Incident management activities for the assessment and repair to the damaged infrastructure from the West New York solids and Floatable Facility:6400 Anthony M Defineo Way West New York, NJ 07093 • Contracts: $7,584.01 Work Completed Total: $7,584.01 Damage: West New York Solids and Floatables Facility Basement; Intense flood waters and high volume debris flow and build up due to storm ida: 6400 Anthony M Defineo Way West New York, Nj 07093
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	Nothing to report

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

18.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for the NHSA.

18.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. The North Hudson Sewerage Authority reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the NHSA indicated the following:

- NHSA noted that Flood should rank high for Hoboken and Weehawken, and Medium for Union City, and West New York.
- NHSA noted that Geological Hazards should be high based off a major mud slide during Storm Ida. Also, due to a large retaining wall failure.

Table 18-13 shows Hudson's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 18-13. Hazard Ranking

Hazard	Rank
Dam/Levee Failure	Low
Drought	Medium
Extreme Temperature	Medium
Flood	High
Geological Hazards	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Low

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

18.6.3.2 Critical Facilities

Table 18-14 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 18-14. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
NHSA - H6/H7 Stormwater PS	Wastewater Pump	X	X
North Hudson Sewerage Authority	Wastewater Treatment	X	X
North Hudson Sewerage Authority – Transfer Hob	Wastewater Pump	X	X
Pump Station 5th Street	Wastewater Pump	X	X
Pump Station H1	Wastewater Pump	X	X

Source: Hudson County; HIFLD; NJGIN

18.6.4 Identified Issues

After review of the NHSA's hazard event history, hazard rankings, hazard location, and current capabilities, Hudson identified the following vulnerabilities within the community:

- During periods of heavy rain, areas in Hoboken (9th and Madison) flood and affect local businesses and residents. This section of the road is considered a lifeline as it provides direct access to emergency services.
- The Adams Street Wastewater Treatment Plant (WWTP) has limited capacity to treat sewage during wet weather events, leading to CSOs and localized flooding.
- A key pump station is located in a flood-prone area, putting electrical and control systems at risk of failure during storms.

18.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

18.7.1 Past Mitigation Action Status

Table 18-15 indicates progress on the County's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

18.7.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 18-15, Hudson identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

Table 18-15. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-NHSA-001	Wet weather pump station at 11th Street area	Coastal Storm, Severe Weather, Flood	NHSA, City of Hoboken Eng. and DPW	**Problem**: Flooding of 8th to 11th Street - west side of Hoboken. **Solution**: The City of Hoboken submitted a Letter of Intent ("LOI") to the New Jersey Environmental Infrastructure Trust for a $9 million low interest loan to install a new wet weather pump station at 11th Street along the waterfront. If funded, the City will pay for the pump station's construction and the NHSA will operate and maintain the pump station in perpetuity. Design of the H-5 pump station is complete.	1. Complete 2. N/A	1.Discontinue 2. N/A 3. This action has been completed

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-NHSA-002	Northeast Resilience Park	N/A	NHSA and City of Hoboken	**Problem**: The northwest section of the City of Hoboken generates CSOs. This can lead to sources of pollution in the Hudson River. **Solution**: Build a stormwater storage tank/pump station and stormwater collection system. This will help reduce the amount of pollution sources entering Hudson River.	1.In Progress 2. Currently under construction	1.Include 2. Keep as is 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-NHSA-003	Madison Street Sewer Replacement Project	Coastal Storm, Severe Weather, Flood	NHSA and City of Hoboken	**Problem**: During periods of heavy rain, areas in Hoboken (9th and Madison) flood and affect local businesses and residents. This section of the road is considered a lifeline as it provides direct access to emergency services. **Solution**: Raise street grades and improve combined sewer conveyance. This will help reduce street flooding, protecting businesses and residents, and allowing roadways to remain open.	1.In Progress 2. Under construction	1.Include 2. Completion in spring of 2026 3. N/A

18.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Hudson participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Hudson would like to pursue in the future to reduce the effects of hazards. The actions 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.

Table 18-16 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 18-17 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 18-16. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure										
Drought										
Extreme Temperatures										
Flood		X			X	X			X	
Geological Hazards										
Severe Weather		X			X	X			X	
Severe Winter Weather										
Wildfire										

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 18-17. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-NHSA-001	Madison Street Sewer Replacement Project	1	1	1	1	1	0	0	1	1	1	1	1	1	0	**11**	High
2025-NHSA-002	Expand Wet Weather Treatment Capacity	1	1	1	1	1	0	0	1	1	1	1	1	1	0	**11**	High
2025-NHSA-003	Flood-Proof Pump Station Electrical Systems	0	1	1	1	1	0	0	0	1	1	1	1	1	0	**9**	Medium

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

Action 2025-NHSA-001. Madison Street Sewer Replacement Project

Lead Agency:	NHSA
Supporting Agencies:	City of Hoboken
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	During periods of heavy rain, areas in Hoboken (9th and Madison) flood and affect local businesses and residents. This section of the road is considered a lifeline as it provides direct access to emergency services.
Description of the Solution:	Raise street grades and improve combined sewer conveyance. This will help reduce street flooding, protecting businesses and residents, and allowing roadways to remain open. This project is expected to be completed by Spring 2026.
Estimated Cost:	High
Potential Funding Sources:	I-Bank (NJDEP)
Implementation Timeline:	1-5 years
Goals Met:	1,2,6,7
Benefits:	Reduce street flooding, protect infrastructure, continuity of operations
Impact on Socially Vulnerable Populations:	Emergency vehicles will have the ability to assist residents during a flood event.
Impact on Future Development:	Ensuring safe travel encourages businesses and residents to remain in or move to the area.
Impact on Critical Facilities/Lifelines:	Roadway will be less likely to incur damage from floodwaters and be able to remain open for travel.
Impact on Capabilities:	Economic resiliency is increased by reducing the time needed for businesses to access facilities to reopen following a flood.
Climate Change Considerations:	Consideration should be taken for more frequent flood events as a result of increases in rainfall frequency and severity.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	High

Alternatives

Action	Evaluation
No Action	-
Reroute stormwater to nearby water bodies	Backflow risk
Installing green infrastructure	Space constraints, requires regular maintenance

Action 2025-NHSA-002. Expand Wet Weather Treatment Capacity

Lead Agency:	NHSA
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	The Adams Street Wastewater Treatment Plant (WWTP) has limited capacity to treat sewage during wet weather events, leading to CSOs and localized flooding.
Description of the Solution:	Construct a new outfall to increase the plant's wet weather treatment capacity. This will allow excess flows to be safely discharged, reducing CSOs and improving water quality.
Estimated Cost:	High
Potential Funding Sources:	I-Bank (NJDEP), EPA Clean Water Fund
Implementation Timeline:	1-5 years
Goals Met:	2,3,6
Benefits:	Reduces CSOs, protects public health, improves compliance with environmental regulations.
Impact on Socially Vulnerable Populations:	Reduces exposure to contaminated floodwaters in densely populated areas
Impact on Future Development:	Supports sustainable growth by improving wastewater infrastructure.
Impact on Critical Facilities/Lifelines:	Enhances reliability of wastewater treatment during emergencies.
Impact on Capabilities:	Increases NHSA's capacity to manage extreme weather events.
Climate Change Considerations:	Prepares NHSA for more frequent and intense rainfall events associated with climate change.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Preventative Measures
Priority	High

Alternatives

Action	Evaluation
No Action	-
Green Infrastructure	Can not handle large volumes during extreme weather events
Storage Tanks	Costly and spece-limited

Action 2025-NHSA-003. Flood-Proof Pump Station Electrical Systems

Lead Agency:	NHSA
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	A key pump station is located in a flood-prone area, putting electrical and control systems at risk of failure during storms.
Description of the Solution:	Elevate electrical and control components above flood levels to ensure continued operation during flood events.
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP
Implementation Timeline:	1-5 years
Goals Met:	2,6
Benefits:	Continuity of operations; reduce infrastructure vulnerability
Impact on Socially Vulnerable Populations:	Improves reliability of water services, reducing health and safety risks during extreme weather events.
Impact on Future Development:	Supports growth by ensuring modern, resilient infrastructure that can handle increased demand.
Impact on Critical Facilities/Lifelines:	Enhances monitoring and control of water systems, reducing service interruptions to hospitals, shelters, and emergency services.
Impact on Capabilities:	Enhances operational reliability during emergencies.
Climate Change Considerations:	Prepares infrastructure for more frequent and intense storms.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection, Structural Flood Control Projects
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Relocate Station	Costly and Complex
Temporary Flood Barriers	Short term fix

19. SECAUCUS MUNICIPAL UTILITIES AUTHORITY

This jurisdictional annex to the Hudson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the participating special districts with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Secaucus Municipal Utilities Authority (SMUA), describes who participated in the planning process, assesses SMUA's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

19.1 Hazard Mitigation Planning Team

The Secaucus Municipal Utilities Authority identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many County departments. The deputy executive director represented the SMUA on the Hudson County HMP Planning Partnership and Steering Committee and supported the local planning process 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.

Table 19-1 summarizes the SMUA officials who participated in the development of the annex and in what capacity. Additional documentation of the SMUA's planning activities through Planning Partnership meetings is included in Volume I.

Table 19-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name / Title: Brian Bigler, Executive Director Address: 1100 Koelle Blvd., Secaucus, NJ 07094 Phone Number: 201-330-2089 Email: bbigler@secaucus.net	Name / Title: Glenn Beckmeyer, Secaucus MUA Engineer Address: 117 Herman St., East Rutherford, NJ 07073 Phone Number: 201-635-9401 Email: gbeckmeyer@beckmeyerengineering.com
National Flood Insurance Program Floodplain Administrator	
Please see Chapter 11, the Town of Secaucus Annex	
Additional Contributors	
None identified.	

19.2 Community Profile

The Secaucus Municipal Utilities Authority (Secaucus MUA) is responsible for processing all of the wastewater generated within the Township of Secaucus. The Authority owns and operates seven pumping stations that vary in capacity from approximately 30,000 gallons per day to over 2,000,000 gallons per day. Each pumping station has back-up power.

Additionally, the Authority maintains approximately 10 miles of collection system piping. This collection system is maintained in conjunction with the Department of Public Works and preventative maintenance is routinely performed.

The wastewater treatment facility, located at 1100 Koelle Boulevard, currently processes 3,150,000 gallons per day (Secaucus MUA 2025).

This facility is an advanced secondary (Level III) treatment facility, with stringent discharge limitations that are met prior to final discharge into Mill Creek {a tributary of the Hackensack River}. There has not been a violation of these New Jersey Department of Environmental Protection imposed limits since the facility upgrade was completed in 1991. The facilities are manned 24 hours per day, seven days per week, including holidays.

19.3 Jurisdictional Capability Assessment and Integration

SMUA performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

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

19.3.1 Planning and Regulatory Capability and Integration

Table 19-2 summarizes the planning and regulatory tools that are available to the Secaucus Municipal Utilities Authority.

Table 19-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	No	-	State and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Zoning/Land Use Code	No	-	Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Subdivision Code	No	-	Local	
How has or will this be integrated with the HMP and how does this reduce risk?				
Site Plan Code	No	-	Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Code	No	-	Local	
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Real Estate Disclosure Requirements	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

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.

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.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- 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?

Not all provisions of this law have become effective at the time of the writing of this plan.

Growth Management	No	-	Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	No	-	State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Flood Damage Prevention Ordinance	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive/Master Plan	No	-	State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Capital Improvement Plan	Yes	Capital Improvement Plan	Local	SMUA
A yearly Capital Improvement Plan includes items which include items identified in the HMP				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Urban Water Management Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Habitat Conservation Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	Federal and State	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	Federal and State	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Agriculture Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Action/ Resilience/Sustainability Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Continuity of Operations Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Public Health Plan	No	-	Federal, State, County and Local	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	-	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

19.3.2 Development and Permitting Capability

Table 19-3 summarizes the capabilities of the SMUA to oversee and track development.

Table 19-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • If you issue development permits, what department is responsible? • If you do not issue development permits, what is your process for tracking new development?	No	-
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory? • If you have a buildable land inventory, please describe	No	-
Describe the level of buildout in your jurisdiction.	N/A	

19.3.3 Administrative and Technical Capability

Table 19-4 summarizes potential staff and personnel resources available to the SMUA and their current responsibilities that contribute to hazard mitigation.

Table 19-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	No	-
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	No	-
Construction/Building/Code Enforcement Department	No	-
Emergency Management/Public Safety Department	No	-
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	No	-
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	Yes	available staff, when required
Engineers or professionals trained in building or infrastructure construction practices	Yes	available staff, when required
Planners or engineers with an understanding of natural hazards	Yes	available staff, when required
Staff with expertise or training in benefit/cost analysis	Yes	available staff, when required
Professionals trained in conducting damage assessments	Yes	available staff, when required

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Personnel skilled or trained in GIS and/or Hazus applications	Yes	available staff, when required
Staff that work with socially vulnerable populations or underserved communities	No	
Environmental scientists familiar with natural hazards	Yes	available staff, when required
Surveyors	Yes	available staff, when required
Emergency manager	Yes	available staff, when required
Grant writers	Yes	available staff, when required, all available information is utilized
Resilience Officer	No	
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	available staff, when required

19.3.4 Fiscal Capability

Table 19-5 summarizes financial resources available to the SMUA.

Table 19-5. Fiscal Capabilities

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

19.3.5 Education and Outreach Capability

Table 19-6 summarizes the education and outreach resources available to the SMUA.

Table 19-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	No	Town of Secaucus
Personnel skilled or trained in website development	No	Town of Secaucus
Hazard mitigation information available on your website	No	
Social media for hazard mitigation education and outreach	No	
Citizen boards or commissions that address issues related to hazard mitigation	No	
Warning systems for hazard events	No	
Natural disaster/safety programs in place for schools	No	
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	Town of Secaucus

19.3.6 Community Classifications

Table 19-7 summarizes classifications for community programs available to the SMUA.

Table 19-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	N/A	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	N/A	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	N/A	-	-
National Weather Service StormReady Certification	N/A	-	-
Firewise Communities classification	N/A	-	-
Sustainable Jersey	N/A		
Other: Organizations with mitigation focus (advocacy group, non-government)	N/A	-	-

N/A = Not applicable

— = Unavailable

19.3.7 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 19-8 summarizes the adaptive capacity for each identified hazard of concern and the Secaucus Municipal Utilities Authority'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 19-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam/Levee	Moderate
Drought	Moderate
Extreme Temperatures	Moderate
Flood	Strong
Geologic Hazards	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

19.4 National Flood Insurance Program Compliance

The SMUA does not participate in the NFIP. For NFIP compliance with the Town of Secaucus, please refer to the Town's annex (Chapter 11).

19.5 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. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 19-9 through Table 19-11.

Table 19-9. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
The Secaucus Municipal Utilities Authority is not responsible for permitting new construction. Permitting is the responsibility of the Town of Secaucus.				

Table 19-10. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

Table 19-11. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

19.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of the Secaucis Municipal Utilities Authority's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

19.6.1 Hazard Area

Hazard area maps illustrate the probable hazard areas impacted within the County, to include SMUA. These hazard maps are shown in Volume 1 of this plan within the hazard profiles. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Hudson has significant exposure. The maps show the location of potential new development, where available.

19.6.2 Hazard Event History

The history of natural and non-natural hazard events in the SMUA is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 19-12 provides details on loss and damage in the SMUA during hazard events since the last hazard mitigation plan update.

Table 19-12. Hazard Event History in Hudson

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hudson
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	N/A
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	N/A
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	N/A
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over $50,000 across the County.	N/A
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	N/A

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hudson
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	N/A
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	N/A

EM = Emergency Declaration (FEMA)
FEMA = Federal Emergency Management Agency
DR = Major Disaster Declaration (FEMA)
N/A = Not applicable

19.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for the SMUA.

19.6.3.1 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. 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; community capabilities to address the hazard; and changing future climate conditions. The Secaucus Municipal Utilities Authority reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the SMUA indicated the following:

- None Identified

Table 19-13 shows Hudson's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 19-13. Hazard Ranking

Hazard	Rank
Dam/Levee Failure	Low
Drought	Medium
Extreme Temperature	High
Flood	High
Geological Hazards	Low
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

19.6.3.2 Critical Facilities

Table 19-14 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 19-14. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
Koelle Boulevard Sewage Treatment	Wastewater Treatment	X	X

Source: Hudson County; HIFLD; NJGIN

19.6.4 Identified Issues

After review of the SMUA's hazard event history, hazard rankings, hazard location, and current capabilities, Hudson identified the following vulnerabilities within the community:

- Loss of primary power in the Town can lead to pumps not working properly or not working at all.
- Stormwater is getting into the sanitary system due to infiltration and broken pipes. This can lead to sanitary sewer overflows, creating a hazard. This also reduces the sewer systems capacity and puts a burden on operation and maintenance. Backups and overflows require emergency response and leads to disruption of service.
- During heavy rain events, the sanitary sewer system can backup.
- Roof drains are connected to the sanitary system, causing stormwater to enter the system. This reduces the capacity of the sanitary system and can lead to sewer overflow and system failures.
- Many homes in the Town of Secaucus have sump pumps in their basements. Discharge from the sump pumps is entering the sanitary sewer system (the system is not designed for stormwater). This leads to a surplus of water entering the system, creating overflows.

19.7 Mitigation Strategy and Prioritization

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

19.7.1 Past Mitigation Action Status

Table 19-15 indicates progress on the County's mitigation strategy identified in the 2020 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

19.7.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 19-15, Hudson identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified

Table 19-15. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-SMUA-001	Purchase mobile generator	All	SMUA	**Problem**: Loss of primary power in the Town can lead to pumps not working properly or not working at all. **Solution**: Purchase a mobile generator to be used at different locations during a power outage. This will allow the MUA to provide power to specific pumps.	1.In Progress 2. In lieu of purchasing a single mobile generator, the SMUA installed 2 new permanent generators and upgraded 1 existing generator. Remaining Pump Station generators are being analyzed.	1.Include 2. No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-SMUA-002	Infiltration and Inflow Study	Coastal Storm, Flood, Severe Weather	SMUA	**Problem**: Stormwater is getting into the sanitary system due to infiltration and broken pipes. This can lead to sanitary sewer overflows, creating a hazard. This also reduces the sewer systems capacity and puts a burden on operation and maintenance. Backups and overflows require emergency response and leads to disruption of service. **Solution**: Conduct an Infiltration and Inflow (I&I) study to determine the amount of I&I entering the collection system and how to address the issue.	1.In Progress 2. Throughout the year, the SMUA is cleaning and televising all sanitary sewers for I/I. When located, the sanitary main is repaired to eliminate the I/I. This is a continuous process that does not end.	1.Include 2. No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-SMUA-003	Increase pump capacities	Coastal Storm, Flood, Severe Weather	SMUA	**Problem**: During heavy rain events, the sanitary sewer system can backup. **Solution**: Increase the size of the pumps at both stations and add another force main and valve between so you can use either pump or use both. This will help with storm events and helps with potential sanitary sewer backups.	1.In Progress 2. Sanitary flow Studies are being prepared and analyzed.	1.Include 2. No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-SMUA-004	Smoke Test	Coastal Storm, Flood, Severe Weather	SMUA	**Problem**: Roof drains are connected to the sanitary system, causing stormwater to enter the system. This reduces the capacity of the sanitary system and can lead to sewer overflow and system failures. **Solution**: Conduct a smoke test to identify where stormwater/groundwater are entering the sanitary sewer system. Direct connections, including catch basins, downspouts, area drains, driveway drains, stairwell drains, patio drains, and storm drain inlets or ditches can be confirmed with this test.	1. In Progress 2. Throughout the year, the SMUA is observing all cross connections within the sanitary system. Smoke testing is one method of observing the connections. Televising the sewer mains is also another method of determination. When located, the cross connections is disconnected from the Sanitary system. This is a continuous process that does not end.	1. Include 2.No change 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-SMUA-005	Smoke Test	Coastal Storm, Flood, Severe Weather, Severe Winter Weather	SMUA	**Problem**: Many homes in the Town of Secaucus have sump pumps in their basements. Discharge from the sump pumps is entering the sanitary sewer system (the system is not designed for stormwater). This leads to a surplus of water entering the system, creating overflows. **Solution**: Work with the Town of Secaucus to install piping behind the curbs for homes to use with their sump pumps. This piping will be connected to the stormwater system.	1. No Progress 2. Work would be done under the initiative form the Town of Secaucus	1. Include 2. No change 3. N/A

19.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Hudson participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Hudson would like to pursue in the future to reduce the effects of hazards. The actions 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.

Table 19-16 indicates the range of proposed mitigation action categories. 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.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 19-17 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 19-16. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure		X				X				X
Drought		X				X				X
Extreme Temperatures		X				X				X
Flood	X	X			X	X				X
Geological Hazards		X				X				X
Severe Weather	X	X			X	X				X
Severe Winter Weather		X				X				X
Wildfire		X				X				X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 19-17. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-SMUA-001	Purchase Mobile Generator	1	1	1	0	1	0	1	1	1	1	1	1	1	1	**12**	High
2025-SMUA-002	Infiltration and Inflow Study	0	1	1	0	0	0	1	0	1	1	1	1	1	0	**8**	Medium
2025-SMUA-003	Increase Pump Capacities	1	1	1	0	1	0	0	0	1	1	1	1	1	0	**9**	Medium
2025-SMUA-004	Smoke Test	1	1	1	0	0	1	0	0	1	1	1	1	1	0	**9**	Medium
2025-SMUA-005	Basement Sump Pump Piping	1	1	1	0	0	1	0	1	1	1	1	1	1	0	**10**	Medium

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

Action 2025-SMUA-001. Purchase Mobile Generator

Lead Agency:	SMUA	
Supporting Agencies:	-	
Hazards of Concern:	Dam/Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Loss of primary power in the Town can lead to pumps not working properly or not working at all.	
Description of the Solution:	To ensure reliable power supply during outages, the MUA initially proposed purchasing a mobile generator for deployment at various locations to support critical pump operations. However, in lieu of acquiring a single mobile unit, the SMUA has made significant infrastructure upgrades: two new permanent generators have been installed, and one existing generator has been upgraded. Evaluation of the remaining pump station generators is currently underway to determine further needs and ensure comprehensive power resilience.	
Estimated Cost:	Medium	
Potential Funding Sources:	FEMA HMGP with local share (MUA)	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,3,4,6,7	
Benefits:	Reduced vulnerability of critical facilities to shut down due to power outages, public health and environmental impacts avoided.	
Impact on Socially Vulnerable Populations:	Reduces risk of sewage backups and service disruptions in vulnerable, flood-prone neighborhoods.	
Impact on Future Development:	Supports resilient infrastructure needed for safe expansion in surrounding areas.	
Impact on Critical Facilities/Lifelines:	Maintains essential sanitation services during emergencies, protecting public health and safety.	
Impact on Capabilities:	Improves system reliability and emergency preparedness across multiple pumping stations.	
Climate Change Considerations:	Enhances resilience to more frequent and severe storms that threaten power supply and infrastructure.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection, Emergency Services	
Priority	High	
Alternatives	**Action**	**Evaluation**
	No Action	-
	Microgrid	Costly and difficult to implement.
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.

Action 2025-SMUA-002. Infiltration and Inflow Study

Lead Agency:	SMUA
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Stormwater is getting into the sanitary system due to infiltration and broken pipes. This can lead to sanitary sewer overflows, creating a hazard. This also reduces the sewer systems capacity and puts a burden on operation and maintenance. Backups and overflows require emergency response and leads to disruption of service.
Description of the Solution:	To identify and mitigate sources of Infiltration and Inflow (I&I) within the sanitary sewer collection system, the MUA proposed conducting a comprehensive I&I study. In practice, the SMUA has implemented an ongoing program involving the systematic cleaning and televising of all sanitary sewers to detect I&I. When I&I sources are identified, immediate repairs are made to the affected sanitary mains. This proactive and continuous approach ensures long-term system integrity and reduces excess flow into the collection system.
Estimated Cost:	Medium
Potential Funding Sources:	Water Pollution Control Grans Program (USEPA), MUA Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,4,6
Benefits:	Reduce or eliminate the amount of infiltration entering the system; allows system to keep its capacity; reduces emergency response
Impact on Socially Vulnerable Populations:	Reducing I&I helps prevent sewer overflows that disproportionately affect vulnerable communities, improving public health and safety.
Impact on Future Development:	Eliminating I&I preserves sewer capacity, supporting sustainable future growth without overburdening infrastructure.
Impact on Critical Facilities/Lifelines:	Improved sewer reliability protects essential services like hospitals and emergency facilities from disruptions.
Impact on Capabilities:	The ongoing I&I program enhances operational efficiency, system knowledge, and long-term maintenance planning.
Climate Change Considerations:	Addressing I&I strengthens system resilience against increased rainfall and flooding due to climate change.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Reactive Maintenance Only	Higher costs, environmental and public health risks
Full System Replacement	Costly

Action 2025-SMUA-003. Increase Pump Capacities

Lead Agency:	SMUA
Supporting Agencies:	-
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	During heavy rain events, the sanitary sewer system can backup.
Description of the Solution:	Increase the size of the pumps at both stations and add another force main and valve between so you can use either pump or use both. This will help with storm events and helps with potential sanitary sewer backups. Sanitary flow studies will be prepared and analyzed.
Estimated Cost:	High
Potential Funding Sources:	Water Pollution Control Grans Program (USEPA), MUA Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,4
Benefits:	Reduce potential sewer backups, continuity of operations
Impact on Socially Vulnerable Populations:	Enhancing pump capacity and system flexibility reduces the risk of sewer backups during storms, protecting vulnerable communities from health hazards and property damage.
Impact on Future Development:	Increased pumping and conveyance capacity supports future growth by ensuring the sewer system can handle higher flows from new developments.
Impact on Critical Facilities/Lifelines:	Improved system reliability minimizes the risk of service disruptions to essential facilities during high-flow events.
Impact on Capabilities:	The upgrades enhance operational flexibility and emergency response by allowing either or both pump stations to manage flow as needed.
Climate Change Considerations:	The improvements prepare the system for more intense and frequent storm events expected with climate change, reducing overflow risks.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	Medium
Alternatives	

Action	Evaluation
No Action	-
Temporary Bypass Pumping during Storm Events	Reactive, Short-term relief
Installing Storage Tanks or Basins	High cost

Action 2025-SMUA-004. Smoke Test

Lead Agency:	SMUA
Supporting Agencies:	Town of Secaucus
Hazards of Concern:	Flood, Severe Weather
Description of the Problem:	Roof drains are connected to the sanitary system, causing stormwater to enter the system. This reduces the capacity of the sanitary system and can lead to sewer overflow and system failures.
Description of the Solution:	To identify and eliminate sources of stormwater and groundwater entering the sanitary sewer system, the SMUA is conducting ongoing inspections to detect cross connections. Smoke testing is one method used to confirm direct connections such as catch basins, downspouts, area drains, and storm inlets. In addition, the SMUA is televising sewer mains to further identify unauthorized connections. When cross connections are found, they are promptly disconnected from the sanitary system. This is a continuous, proactive process aimed at improving system integrity and reducing inflow and infiltration.
Estimated Cost:	High
Potential Funding Sources:	MUA Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,4
Benefits:	Ensures uninterrupted operation of critical wastewater infrastructure during power outages.
Impact on Socially Vulnerable Populations:	Identifying and removing cross connections reduces the risk of sewer backups and overflows, protecting vulnerable communities from health hazards and costly damages.
Impact on Future Development:	Maintaining system integrity by eliminating unauthorized inflow ensures capacity is preserved for future development and growth.
Impact on Critical Facilities/Lifelines:	Reducing excess flow into the sanitary system enhances reliability and prevents service disruptions at essential facilities during storm events.
Impact on Capabilities:	The continuous inspection and disconnection process improves system monitoring, operational efficiency, and long-term maintenance planning.
Climate Change Considerations:	Proactively removing stormwater inflow strengthens the system's resilience to increased rainfall and extreme weather events driven by climate change..
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	Medium

Alternatives	**Action**	**Evaluation**
	No Action	-
	Relying Solely on Flow Monitoring or Metering	Ineffective for Targeted Repairs
	Expanding the Capacity of Sanitary Sewer System	Temporary relief

Action 2025-SMUA-005. Basement Sump Pump Piping

Lead Agency:	SMUA
Supporting Agencies:	Town of Secaucus
Hazards of Concern:	Flood, Severe Weather, Severe Winter Weather
Description of the Problem:	Many homes in the Town of Secaucus have sump pumps in their basements. Discharge from the sump pumps is entering the sanitary sewer system (the system is not designed for stormwater). This leads to a surplus of water entering the system, creating overflows.
Description of the Solution:	Collaborate with the Town of Secaucus to install piping behind the curbs for residential sump pump discharge. This piping will be connected to the stormwater system. The work will be carried out under an initiative led by the Town of Secaucus.
Estimated Cost:	Medium
Potential Funding Sources:	MUA Budget
Implementation Timeline:	1-5 years
Goals Met:	1,2,4,7
Benefits:	Reduce the amount of stormwater that enters the sanitary sewer, continuity of operations
Impact on Socially Vulnerable Populations:	This project reduces flood risk for socially vulnerable residents by providing a publicly supported solution for sump pump discharge.
Impact on Future Development:	The infrastructure supports sustainable growth by integrating stormwater management into future residential and commercial development planning.
Impact on Critical Facilities/Lifelines:	By easing pressure on the stormwater system, the project indirectly helps protect nearby critical facilities and essential services.
Impact on Capabilities:	The initiative strengthens municipal capabilities in flood mitigation and fosters collaboration between the town and residents.
Climate Change Considerations:	The project enhances climate resilience by preparing infrastructure for more frequent and intense rainfall events.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection
Priority	Medium

Alternatives

Action	Evaluation
No Action	-
Relying on Homeowners to discharge	Can create safety hazards, does not address proper stormwater management
Install individual dry wells	Requires sufficient space, and regular maintenance