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 3.2.1-1 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 3.2.1-1. 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: Edouardo Ferrante Address: 630 Avenue C, Bayonne, NJ 07002 Phone Number: 201-858-6016 Email: eferrante@bayonnefire.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	

Commented [MK1]: CITY: If there's any additional contributors, please feel free to add rows or provide names to the Tetra Tech team for us to add in.

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 3.3.1 summarizes the planning and regulatory tools that are available to Bayonne.

Table 3.3.1. 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

	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

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 3.3.2 summarizes the capabilities of Bayonne to oversee and track development.

Table 3.3.2. 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 3.3.3 summarizes potential staff and personnel resources available to Bayonne and their current responsibilities that contribute to hazard mitigation.

Table 3.3.3. 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

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Staff with expertise or training in benefit/cost analysis	Yes	Business Administrator, CFO
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 3.3.4 summarizes financial resources available to Bayonne.

Table 3.3.4. 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 3.3.5 summarizes the education and outreach resources available to Bayonne.

Table 3.3.5. 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 3.3.6 summarizes classifications for community programs available to Bayonne.

Table 3.3.6. 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 3.3.78 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 3.3.78. 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 3.2.1-1 is responsible for maintaining this information.

3.4.1 NFIP Statistics

Table 3.4.1 summarizes the NFIP policy and claim statistics for Bayonne.

Table 3.4.1. 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**

# Policies	**222**
# 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 3.4.2 provides a summary of the NFIP program in Bayonne.

Table 3.4.2. 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 Compliance	
What local department is responsible for floodplain management?	Municipal Services and Building
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?	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 3.4.2 through Table 3.4.2.

Table 3.4.2. 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				

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
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				
Fitness International	Commercial/Industrial				
TFG 115-117 W2nd Street Urban Renewal LLC	Residential				
Martha Stephens	Residential				
Stephen Nychay	Residential				
172 Ave F LLC	Commercial/Industrial				
425 Avenue C	Residential				
Bayonne 32 LLC	Residential				
175 W 7th Development Urban Renewal LLC	Residential				
Bayonne Redevelopers Residential UR Block 780	Residential				
275 Chosin Few Way Urban Renewal LLC	Commercial/Industrial				

Commented [SU2]: CITY: Can you fill out information for the additional columns. I did not see this information provided.

# of Units/Structures
Location
Known Hazard Zones
Description/Status of Development

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
St. Joseph's Property	Residential				
230-250 Ave. E, LLC	Residential				
Pier View Loft	Residential				
JSF Management, LLC	Non-residential				
St. Joseph's Property	Residential				
MYK Builders	Residential				
Parkview Realty Holding, 172 Avenue F	Residential				
Bayonne Equities Urban Renewal	Residential				
Mahalaxmi Bayonne LLC	Residential				
MAG Realty Group, LLC	Residential				
MAG Realty Group, LLC	Residential				
Pier View Loft	Residential				
Alessi	Non-Residential				

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

Table 3.4.2 Known or Anticipated Major Development and Infrastructure in the Next Five Years

Commented [SU3]: CITY: Please indicate any known or anticipated development.

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development

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

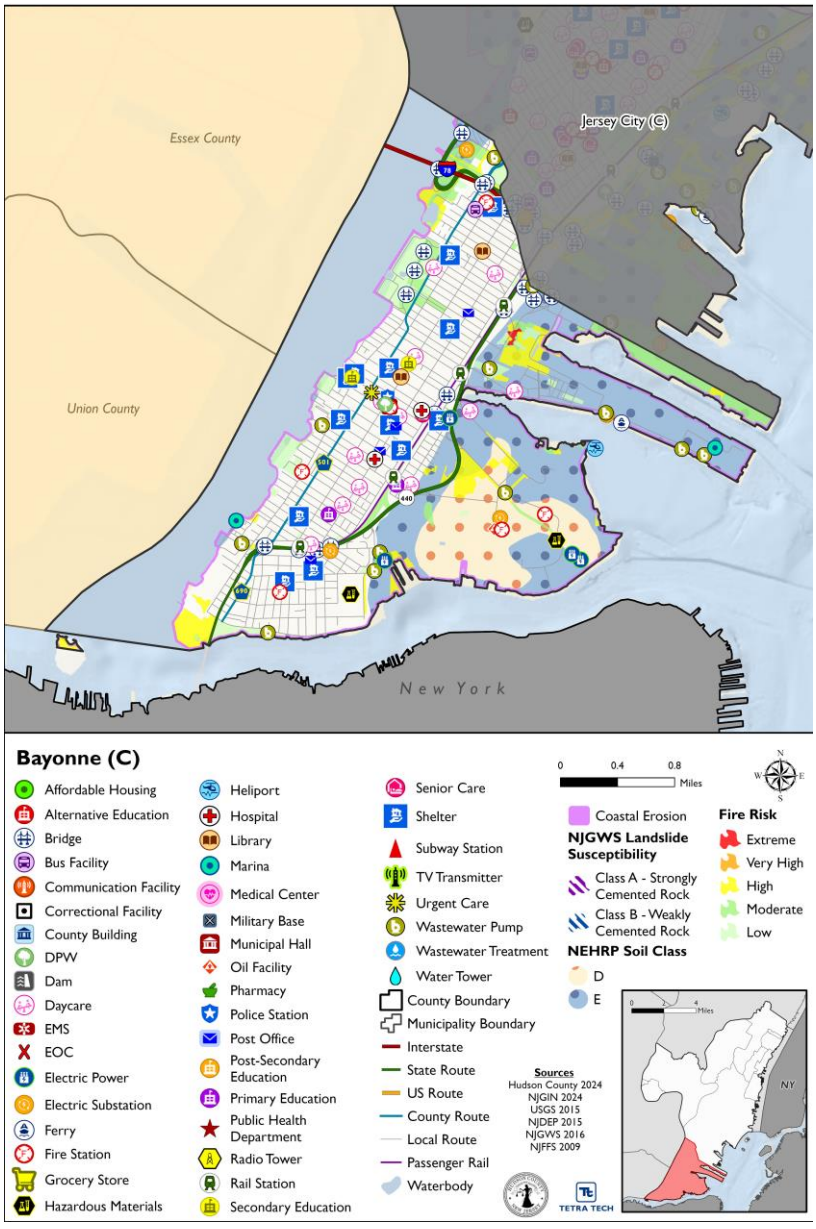


Figure 3-2. Bayonne Hazard Area Extent and Location Map 2

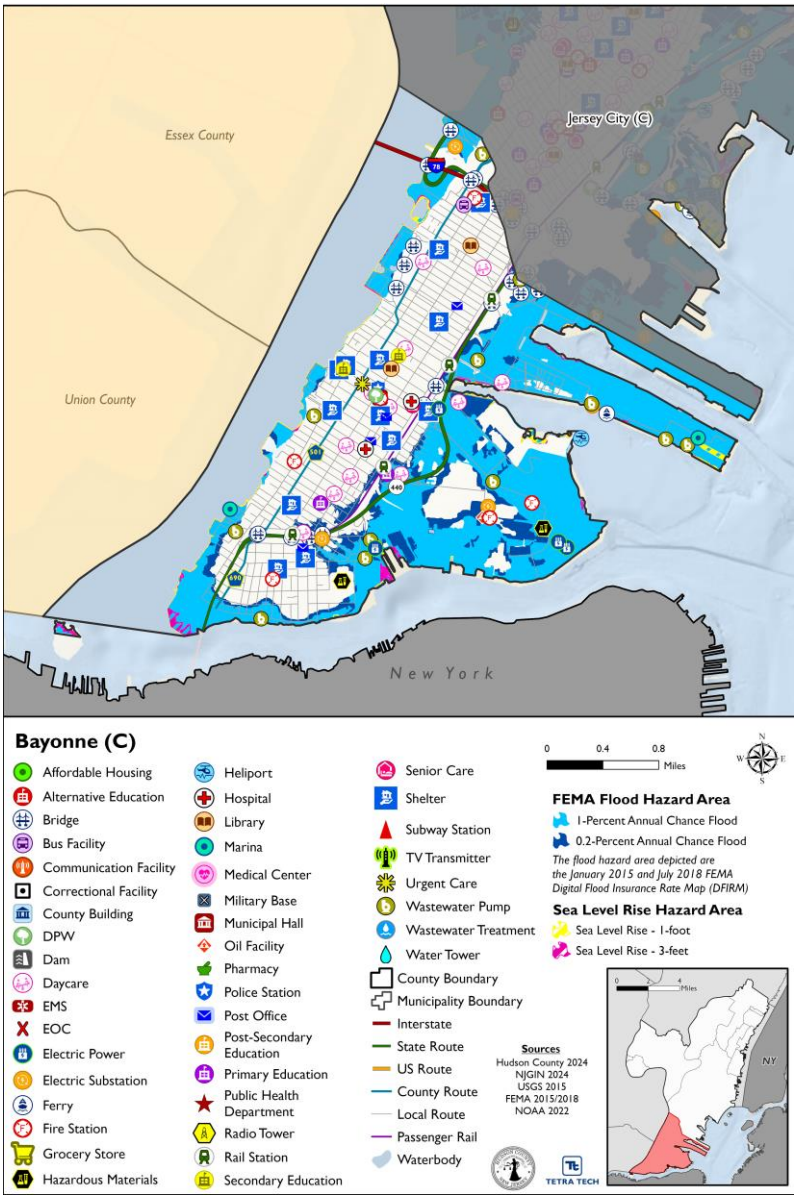
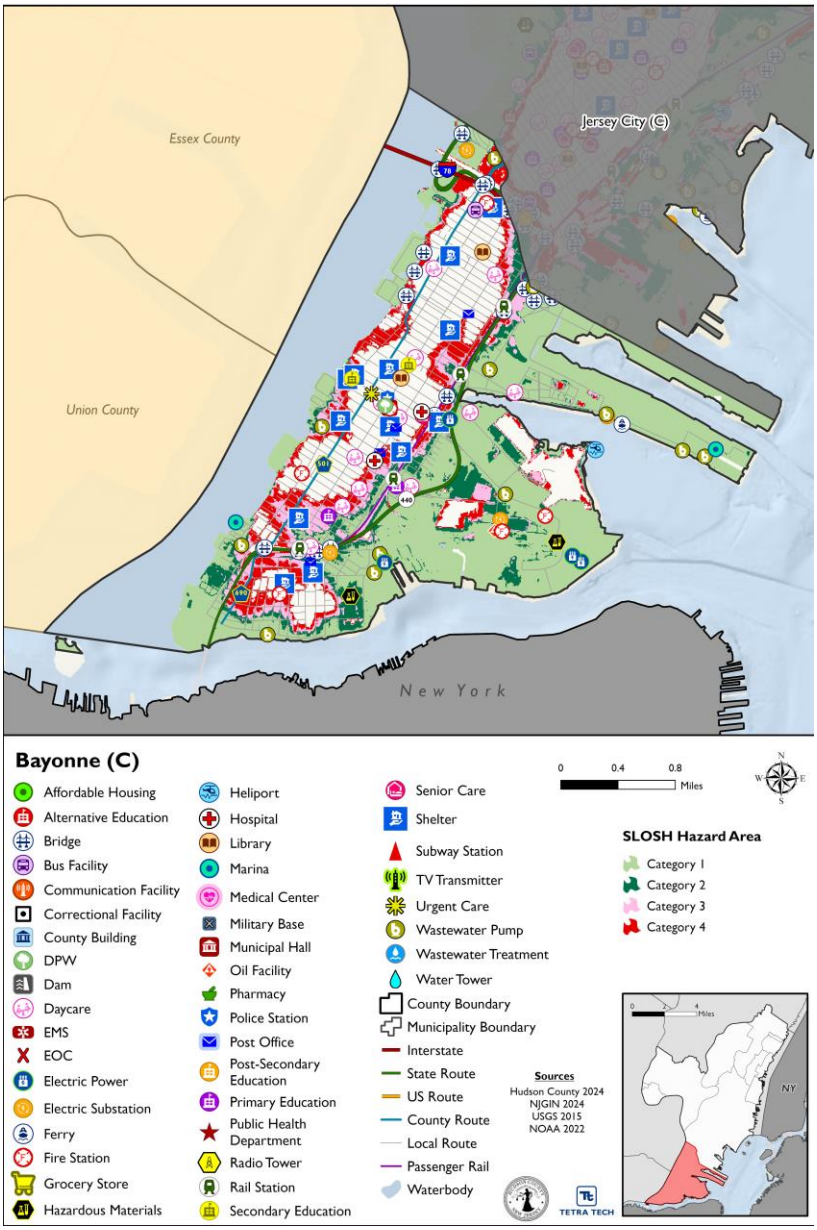


Figure 3-3. Bayonne Hazard Area Extent and Location Map 3



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 33.6.2 provides details on loss and damage in Bayonne during hazard events since the last hazard mitigation plan update.

Table 33.6.2. 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.	
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.	
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.	

Commented [SU4]: CITY: List any damage or losses for Bayonne, if any. If there weren't any, indicate none or N/A

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Bayonne
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.	
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.	
March 23, 2024	Heavy Rains	No	Heavy rainfall led to flooding and prolonged road closures along the Bayonne I-78/NJ Turnpike entrance	
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

Commented [SU4]: CITY: List any damage or losses for Bayonne, if any. If there weren't any, indicate none or N/A

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 3.6.3 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 3.6.3 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 3.6.3 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 3.6.3. 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

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
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
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 3.7.2-2 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 mitigation actions completed in Table 3.7.2-2, 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 listed in Table 3.7.2-1:

Table 3.7.2-1. 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.

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.

Table 3.7.2-2. 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

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-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
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

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-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

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-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
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

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-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
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.

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-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

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 3.7.3 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 3.7.3-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 3.7.3. 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 3.7.3-19. 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-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

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-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 eight 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.