



# 1.0 CITY OF PATERSON

This jurisdictional annex to the Passaic County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the City of Paterson 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 Paterson, describes who participated in the planning process, assesses Paterson’s risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

## 1.1 HAZARD MITIGATION PLANNING TEAM

The City of Paterson identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many City departments. The Office of Emergency Management represented the community on the Passaic County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 2-1 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 2-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Troy Ayers, OEM Coordinator Address: 300 McBride Ave, Paterson, NJ 07501 Phone Number: 973-803-1730 Email: <a href="mailto:tayers@patersonnj.gov">tayers@patersonnj.gov</a>	Name/Title: Captain Herb Eggers, OEM Address: 300 McBride Ave, Paterson, NJ 07501 Phone Number: 973-868-1551 Email: <a href="mailto:heggers@patersonnj.gov">heggers@patersonnj.gov</a>
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Jerry Lobo, Acting Construction Official Address: 300 McBride Ave, Paterson, NJ 07501 Phone Number: 973-321-1600 Email: <a href="mailto:jlobo@patersonnj.gov">jlobo@patersonnj.gov</a>	
<b>Additional Contributors</b>	
Name/Title: Troy Ayers, Coordinator, Office of Emergency Management Method of Participation: Participated in Planning Partnership; Attended Planning Partnership Kickoff and Risk Assessment/Mitigation Strategy Workshop; provided information on hazard event history, and previous mitigation status.	
Name/Title: Captain Herb Eggers, Office of Emergency Management Method of Participation: Participated in Planning Partnership; Attended Planning Partnership Kickoff.	
Name/Title: Deborah Bravo Method of Participation: Attended Planning Partnership Kickoff.	
Name/Title: Detective Joseph Ricciardi, Office of Emergency Management Method of Participation: Attended Planning Partnership Kickoff.	
Name/Title: James McGrath, P.E., Municipal Engineer Method of Participation: Participated in the planning process and provided updated NFIP information.	



Primary Point of Contact	Alternate Point of Contact
Name/Title: Jose Castro, Chief, Fire Department Method of Participation: Attended Planning Partnership Kickoff.	
Name/Title: Libra Jones, Deputy Coordinator, Office of Emergency Management Method of Participation: Attended Planning Partnership Kickoff and Risk Assessment/Mitigation Strategy Workshop; Provided information on the hazard event history, capability assessment, critical facilities, mitigation actions and the NFIP summary.	
Name/Title: Michael Sanginario, Police Department Method of Participation: Attended Planning Partnership Kickoff.	
Name/Title: Tyrome Joyner, Office of Emergency Management Method of Participation: Attended Planning Partnership Kickoff.	
Name/Title: Jerry Lobo, (Former) Construction Official Method of Participation: Provided information on building permits and development since last planning process.	

## 1.2 COMMUNITY PROFILE

### 1.2.1 Brief History

Paterson, also known as the ‘Silk City,’ became an incorporated city in 1851. Its location along the Passaic River and near the Great Falls provided many industries the opportunity to harness a source of energy to power their factories. These industries flourished and with their growth, came the beginnings of the Industrial Revolution in the United States (Passaic County HMP 2020).

### 1.2.2 Location

According to the U.S. Census Bureau, the City has a total land area of 8.074 square miles, of which 8.428 square miles is land and 0.276 square miles is water. It is bordered by City of Clifton and Borough of Woodland Park to the South, Borough of Prospect Park to the west, and Bergen County to the north and east.

### 1.2.3 Governing Body Format

Paterson is governed by the Mayor/Council form of government under the Faulker Act (Passaic County HMP 2020).

### 1.2.4 Population and Social Vulnerability

According to the U.S. Census, the 2020 population for Paterson was 159,732, an 8.8 percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 7.9 percent of the population is 5 years of age or younger, 11.5 percent is 65 years of age or older, 22.1 percent is non-English speaking, 23.5 percent is below the poverty threshold, and 8.1 percent is considered disabled.



## ALICE in Passaic 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 2022 Point-in-Time-Data from ALICE, 35 percent of the 179,292 households in Passaic County are ALICE households (compared to the state average of 26 percent). The median household income in Passaic is \$79,955, and the County sees a labor force participation rate of 66 percent. Passaic County faces a lower-than-average household income compared to the state average of \$96,346, and a higher-than-average poverty rate at 14 percent (compared to the state average of 10 percent) (United for ALICE 2022).

## 1.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Paterson 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 Paterson to identify opportunities for integrating mitigation concepts into ongoing City procedures.

### 1.3.1 Planning and Regulatory Capability and Integration

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



Table 2-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	NJAC 5:23-3.14; International Building Code – New Jersey Edition, 2018. NJAC 5:24-3; Chapter	State and Local	Economic Development
<p>How has or will this be integrated with the HMP and how does this reduce risk?            The State Uniform Construction Code Enforcing Agency, also known as the “Paterson Construction Code Enforcing Agency,” as heretofore established, is hereby continued. The agency shall be a subdivision in the Community Improvements Division of the Department of Community Development. The enforcing agency shall consist of a Construction Official, building subcode official, plumbing subcode official, electrical subcode official, fire protection subcode official and other subcode officials for such additional subcodes as the Commissioner of the Department of Community Affairs, State of New Jersey, shall hereafter adopt as part of the State Uniform Construction Code. The Construction Official shall be the chief administrator of the enforcing agency.</p>				
<b>Zoning/Land Use Code</b>	Yes	Chapter 483 – Zoning and Land Development	Local	Planning Department
<p>How has or will this be integrated with the HMP and how does this reduce risk?            The ordinance includes natural hazard overlay zones, as indicated by FEMA maps, which set specific conditions for land use within these zones. It also prohibits development within, or the filling of, wetlands, floodways, and floodplains, requiring a DEP permit for any such activities. Additionally, a zoning code is in place to encourage resilient development by offering density bonuses for projects located outside of natural hazard areas.</p>				
<b>Subdivision Code</b>	Yes	P.L.1975, c.291 (C.40:55D-47):40:55D-37; Chapter 297-Subdivision of Land	Local	Planning and Zoning
<p>How has or will this be integrated with the HMP and how does this reduce risk?            The purpose and intent of this chapter shall be to provide rules, regulations and standards to guide land subdivision in the city in order to promote the public health, safety, convenience and general welfare of the municipality. It shall be administered to ensure the orderly growth and development, the conservation, protection and proper use of land and adequate provision for public facilities, circulation, utilities and services.</p>				
<b>Site Plan Code</b>	Yes	MLUL NJ 40:55d; Chapter 297-Subdivision of Land, Article II Sketch Plat Procedure	Local	Planning and Zoning
<p>How has or will this be integrated with the HMP and how does this reduce risk?            Any applicant proposing to subdivide land within the city shall, prior to subdividing land, submit to the Planning Board copies of a sketch plat of the proposed subdivision for the purposes of classification and preliminary discussions. The Planning Board, or its Subdivision Committee is so delegated to said Committee, shall determine if a sketch plat conforms to the definition of a “minor subdivision.” Minor subdivision approval shall be granted or denied by the Planning Board within forty-five (45) days of submission of a completed application or within such further time as may be consented to by the applicant. All subdivisions of land within the city are subject to review by the Passaic County Planning Board. Approval by the Passaic County Planning Board is required if said subdivision falls within the jurisdiction of the county</p>				
<b>Stormwater Management Code</b>	Yes	Chapter 433 – Stormwater Management	Local	Department of Public Works
<p>How has or will this be integrated with the HMP and how does this reduce risk?            It is the purpose of this chapter to establish minimum stormwater management requirements and controls for major development.</p>				



	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
<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk? N/A				
<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

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

For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord’s tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area (“100-year floodplain”) or Moderate Risk Flood Hazard Area (“500-year floodplain”) and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.

The model notice is to contain the heading “Flood Risk” and questions for the landlord to answer regarding the landlord’s actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for “unknown.” To determine how the questions are to be answered, FEMA’s current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.

The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA’s National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter’s insurance does not typically cover flood damage.

For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.

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

- Is any or all of the property in the Special Flood Hazard Area (“100-year floodplain”) or a Moderate Risk Flood Hazard Area (“500-year floodplain”) according to FEMA’s current flood insurance rate maps?
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.
- Is there flood insurance on the property? A standard homeowner’s insurance policy typically does not cover flood damage.
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.



	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
<ul style="list-style-type: none"> <li>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?</li> <li>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?</li> </ul> <p>This law went into effect in March 2024 during the planning process of this plan update.</p>	No	-	-	-
<p><b>Growth Management</b></p> <p>How has or will this be integrated with the HMP and how does this reduce risk? N/A</p>	No	-	-	-
<p><b>Environmental Protection Ordinance(s)</b></p> <p>How has or will this be integrated with the HMP and how does this reduce risk? N/A</p>	No	-	-	-
<p><b>Flood Damage Prevention Ordinance</b></p> <p>How has or will this be integrated with the HMP and how does this reduce risk? Last updated in March 2020. Promotes the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:</p> <ul style="list-style-type: none"> <li>A. To protect human life and health.</li> <li>B. To minimize expenditure of public money for costly flood control projects.</li> <li>C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.</li> <li>D. To minimize prolonged business interruptions.</li> <li>E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard.</li> <li>F. To help maintain a stable tax base by providing for the secondary use and development of areas of special flood hazard so as to minimize future flood blight areas.</li> <li>G. To ensure that potential buyers are notified that property is in an area of special flood hazard.</li> </ul> <p>The ordinance does not follow the latest model code coordinated ordinance from the New Jersey Department of Environmental Protection (NJDEP) and will require update.</p>	Yes	Chapter 219- Flood Damage Prevention	Local	Floodplain Manager
<p><b>Wellhead Protection</b></p> <p>How has or will this be integrated with the HMP and how does this reduce risk? N/A</p>	No	-	-	-
<p><b>Emergency Management Ordinance</b></p> <p>How has or will this be integrated with the HMP and how does this reduce risk? N/A</p>	No	-	-	-
<p><b>Climate Change Ordinance</b></p> <p>How has or will this be integrated with the HMP and how does this reduce risk? N/A</p>	No	-	-	-



	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
<b>Other</b>	Yes	Chapter 473 Water, 1979	Local	Administration
<p>How has or will this be integrated with the HMP and how does this reduce risk?            Whenever the amount of water impounded in the storage reservoirs supplying users of water in the city has fallen below 50 percent of full storage capacity or whenever the engineer in charge of water being supplied to the city shall certify that an emergency exists in such water supply or the water of the Passaic River is at a low ebb, the Mayor may, for the protection, health, safety and general welfare of the citizens and residents of the city, proclaim the existence of a water emergency and prescribe regulations to:</p> <ul style="list-style-type: none"> <li>A. Prohibit the use of water from the city supply for any purpose not necessary to the health, safety, and welfare of the public.</li> <li>B. Allocate and prorate the available water supplies.</li> <li>C. Reduce consumption by users.</li> <li>D. Prevent waste for the period of duration of such emergency.</li> </ul>				
<b>PLANNING DOCUMENTS</b>				
<b>Comprehensive/Master Plan</b>	Yes	City of Paterson Master Plan, 2014	Local	Planning and Zoning
<p>How has or will this be integrated with the HMP and how does this reduce risk?            To evaluate and synchronize the many previous planning efforts that have been undertaken in the City and provide a comprehensive Plan that synthesizes all the previous plans, while also addressing new issues and circumstances.</p>				
<b>Capital Improvement Plan</b>	Yes	City of Paterson Master Plan, 2014	Local	Department of Public Works
<p>How has or will this be integrated with the HMP and how does this reduce risk?            To evaluate and synchronize the many previous planning efforts that have been undertaken in the City and provide a comprehensive Plan that synthesizes all the previous plans, while also addressing new issues and circumstances.</p>				
<b>Disaster Debris Management Plan</b>	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?            N/A</p>				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?            N/A</p>				





	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
<b>Stormwater Management Plan</b>	Yes	New Jersey Department of Environmental Protection Storm Water Management Rule (N.J.A.C. 7:8, et seq.)	State and Local	Department of Public Works

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

- Several minimum goals for Tier A municipal stormwater management plans were identified in the New Jersey Department of Environmental Protection Guidance document and include:
- Reduce flood damage, including damage to life and property;
- Minimize, to the extent practical, any increase in stormwater runoff from any new development
- Reduce soil erosion from any development or construction project
- Assure the adequacy of existing and proposed culverts and bridges, and other in-stream structures;
- Maintain groundwater recharge;
- Prevent, to the greatest extent feasible, an increase in nonpoint source pollution;
- Maintain the integrity of stream, channels for their biological functions, as well as for drainage;
- Minimize pollutants in stormwater runoff from new and existing development in order to restore, enhance and maintain the chemical, physical, and biological integrity of the waters of the State, to protect public health, to safeguard fish and aquatic life and scenic and ecological values, and to enhance the domestic, municipal, recreational, industrial and other uses of water;
- Protect public safety through the proper design and operation of stormwater management basins.

<b>Open Space Plan</b>	Yes	Parks and Open Space Vision 2021	Local	-
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How has or will this be integrated with the HMP and how does this reduce risk?

Public open spaces in Paterson should be designed, maintained, and programmed to support:

- Economic growth; well-designed, well-maintained outdoor public spaces enhance tourism, downtown and neighborhood revitalization, and property values.
- Health: safe, usable outdoor public space encourages fitness and prevents obesity and diabetes. New facilities and outdoor programs led by health care organizations are some of the available options.
- Environmental Protection and Flood Prevention: urban trees, wetlands, and shoreline buffers reduce heat island effects, flooding and combined sewer overflow.
- Education: adequate outdoor recreation space benefits students and increases the potential for outdoor environmental education (for jobs of the future and for understanding of global climate issues).
- Community Development: well-programmed and safe spaces, supported by active community groups, promote community cohesion and reduce crime.

<b>Urban Water Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

N/A

<b>Habitat Conservation Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

N/A

<b>Economic Development Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

N/A

<b>Community Wildfire Protection Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

N/A





	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
<b>Community Forest Management Plan</b>	Yes	City of Paterson Forestry Management Plan	Local	

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

<b>Transportation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk? N/A				

<b>Agriculture Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk? N/A				

<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk? N/A				

<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk? N/A				

<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk? N/A				

<b>Other</b>	Yes	Stormwater Pollution Prevention Plan, 2005	State and Local	Department of Public Works
How has or will this be integrated with the HMP and how does this reduce risk? Identifies stormwater programs, state basic requirements, local ordinances and enforcement, and the local stormwater management processes.				

**RESPONSE/RECOVERY PLANNING**

<b>Emergency Operations Plan</b>	Yes	City of Paterson Emergency Operations Plan, 2014	Local	
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How has or will this be integrated with the HMP and how does this reduce risk?

Consider the following:

- Does the plan cover short-term response and long-term recovery to address communications, evacuation, and housing necessary for identified hazards?
- Is there an adopted evacuation and shelter plan to deal with emergencies from natural hazards?
- Are evacuation routes located outside of floodplains, sea level rise inundation zones, or liquefaction zones?
- Are there emergency communication systems in place?
- Are those systems deployed in areas with the highest potential hazard exposure?

<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk? N/A				



	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
<b>Substantial Damage Response Plan</b> How has or will this be integrated with the HMP and how does this reduce risk? N/A	No	-	-	-
<b>Threat and Hazard Identification and Risk Assessment</b> How has or will this be integrated with the HMP and how does this reduce risk? N/A	No	-	-	-
<b>Post-Disaster Recovery Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Public Health Plan</b> How has or will this be integrated with the HMP and how does this reduce risk? Focuses on the development of strategies to address health disparities within the City.	Yes	Paterson Community Health Improvement Plan	Local	Division of Health
<b>Other</b> How has or will this be integrated with the HMP and how does this reduce risk? N/A	No	-	-	-

### 1.3.2 Development and Permitting Capability

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

Table 2-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	Planning Board and permitting programs
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	City-based GIS system
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	Yes	Vacant property layer
Describe the level of buildout in your jurisdiction.	N/A	Fully built out

### 1.3.3 Administrative and Technical Capability

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



Table 2-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	Planning and Zoning Board
Zoning Board of Adjustment	Yes	Zoning Board of Adjustment
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	<p>The Paterson Environmental Commission seeks to protect and improve the quality of our natural resources by addressing the City Council, the planning board, and the Mayor on actions and policies of sustainability. Through education and outreach, the Commission seeks to inspire and empower the community, both residential, commercial, and globally to incorporate environmentally responsible practices in their daily lives.</p> <p>The Paterson Green Team was adopted by City Council Resolution in December 2019 and has since been working with Paterson mayor Andres Sayegh, City Council members, Department of Public Works, and residents to support various green initiatives throughout the City.</p>
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	<p>The Department of Economic Development is responsible for establishing Paterson as an economic engine in the Northern New Jersey region in order to enhance the quality of life for all who live, work and play in the city.</p> <p>Working with the Mayor, his administration and the City Council, the Department is responsible for developing an economic vision for a sustainable and prosperous Paterson.</p> <p>The Urban Enterprise Zone program is part of the Department of Economic Development. The Urban Enterprise Zone Program was created in 1986 and exists to foster an economic climate that revitalizes urban communities. The program works to stimulate growth in the City by encouraging businesses to develop and create private-sector jobs through public and private investment.</p>
Public Works/Highway Department	Yes	The Department of Public Works is responsible for all matters relating to the construction, management, maintenance, operation of physical properties of the City. In addition, Public Works helps to prepare plans, specifications and the letting and performance of contracts for all city Public Works or improvements. Public Works also oversees and provides all engineering and mechanical services required by departments, offices, or agencies of the City government.
Construction/Building/Code Enforcement Department	Yes	Department of Community Development
Emergency Management/Public Safety Department	Yes	The mission of the Public Safety Department is to protect and serve the residents of Paterson through the work of



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		four divisions which include the Police Division, Fire Division, Animal Control and the Office of Emergency Management.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Department of Public Works
Mutual aid agreements	Yes	Paterson Fire Department
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	Yes	Passaic Valley Water Commission provides water for the City.  The mission of the Department of Community Development is to revitalize neighborhoods in the City of Paterson. The Department administers the funding received annually by the United States Department of Housing and Urban Development.
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Economic Development, Planning and Zoning Board
Engineers or professionals trained in building or infrastructure construction practices	Yes	City Engineer
Planners or engineers with an understanding of natural hazards	Yes	Economic Development, Planning and Zoning Board
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	City Engineer
Staff that work with socially vulnerable populations or underserved communities	Yes	Paterson Council on the Aging, and Paterson Council on the Disabled
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	No	-
Grant writers	Yes	Ryan White, Grants Office
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-



### 1.3.4 Fiscal Capability

Table 2-5 summarizes financial resources available to Paterson.

Table 2-5. Fiscal Capabilities

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

### 1.3.5 Education and Outreach Capability

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

Table 2-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Public Information Officer  The City of Paterson uses various communications tools to share information with residents. Communication tools include a website, social media, municipal channels, phone calls, emails, and outreach through community partners.
Personnel skilled or trained in website development	Yes	Coordinator and Deputy Coordinators skilled in website development
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	Yes	Mayor uses social media for various announcements
Citizen boards or commissions that address issues related to hazard mitigation	No	-



Outreach Resources	Available? (Yes/No)	Comment
Warning systems for hazard events	Yes	The City of Paterson updates their emergency communications plan to utilize a variety of communication channels. Including but not limited to: Social Media, Newspapers, Radio, Television, Cablevision, Route Distribution of Pamphlet, Posters, Emergency Alert System (EAS), etc.
Natural disaster/safety programs in place for schools	Yes	In progress. Working with the Superintendent and Safety Director of Schools on programs.
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	Paterson Council on the Aging, and Paterson Council on the Disabled
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	The City of Paterson Office of Emergency Management hosts several information events and trainings in conjunction with the Paterson Fire Department and Red Cross.

### 1.3.6 Community Classifications

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

Table 2-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	2	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	Silver	October 27, 2023
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 1.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 2-8 summarizes the adaptive capacity for each identified hazard of concern and the 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 2-8. Adaptive Capacity

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

## 1.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

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

### 1.4.1 NFIP Statistics

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

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

# Claims (Losses)	682
Total Loss Payments	\$32,173,512
# Repetitive Loss Properties (NFIP definition)	149
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties (NFIP definition)	48
# Severe Repetitive Loss Properties (FMA definition)	48

*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: NJOEM 2024





## 1.4.2 Flood Vulnerability Summary

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

Table 2-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	This information is provided on the FEMA Flood Map, January 27, 2016
Do you maintain a list of properties that have been damaged by flooding?	Yes – maintained by the Department of Economic Development
Do you maintain a list of property owners interested in flood mitigation?	Yes – maintained by the Department of Economic Development
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	In accordance with FEMA Unit 8
How do you make Substantial Damage determinations?	In accordance with FEMA Unit 8
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Economic Development – Blue Acres Funding – As of March 2020, 51 Residential Properties
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	The Department of Public Works
Are any certified floodplain managers on staff in your jurisdiction?	Jerry Lobo, Construction Official
Do you have access to resources to determine possible future flooding conditions from climate change?	Collaboratively with Planning/Zoning and Building, we can use the data and mapping that we have to determine this.
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, the Engineering Department does not have any training related to this and would benefit from it
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	The Engineering Department has GIS and mapping capabilities, as well as the ability to pull permits and perform inspections.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	In accordance with FEMA Unit 8
What are the barriers to running an effective NFIP program in the community, if any?	The City of Paterson is a financially distressed City, and does not have the funding to keep the staff to fully monitor and implement an NFIP program.



NFIP Topic	Comments
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	None are noted
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	The Engineering Department is unaware of the most recent CAC/CAV visit.
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 219 – Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	Adopted 09/25/2007 by Ordinance No. 07-049; updated 03/10/2020 by Ordinance No. 20-014
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Does not meet requirements but will once City adopts Code Coordinated Ordinance
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?	City of Paterson Municipal Code, Chapter 483 - Zoning and Land Development - Article 5, Section 11 - Flood Damage Prevention
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	Yes, Paterson is interested in participating in the CRS

## 1.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction’s overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 2-11 through Table 2-13.

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

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2020</b>				
Total Permits	5	5	0	10
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	1	13	2	16
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	6	74	19	99
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	20	69	19	108
Permits within SFHA	0	0	0	0

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



Table 2-12. Recent Major Development and Infrastructure from 2020 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
Hinchcliff Stadium	Commercial	1	186 Maple St	None	Complete

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

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

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

## 1.6 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 Paterson’s risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 1.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the City are shown in Figure 2-1 through Figure 2-2. 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 Paterson has significant exposure. The maps show the location of potential new development, where available.



Figure 2-1. Paterson Hazard Area Extent and Location Map 1

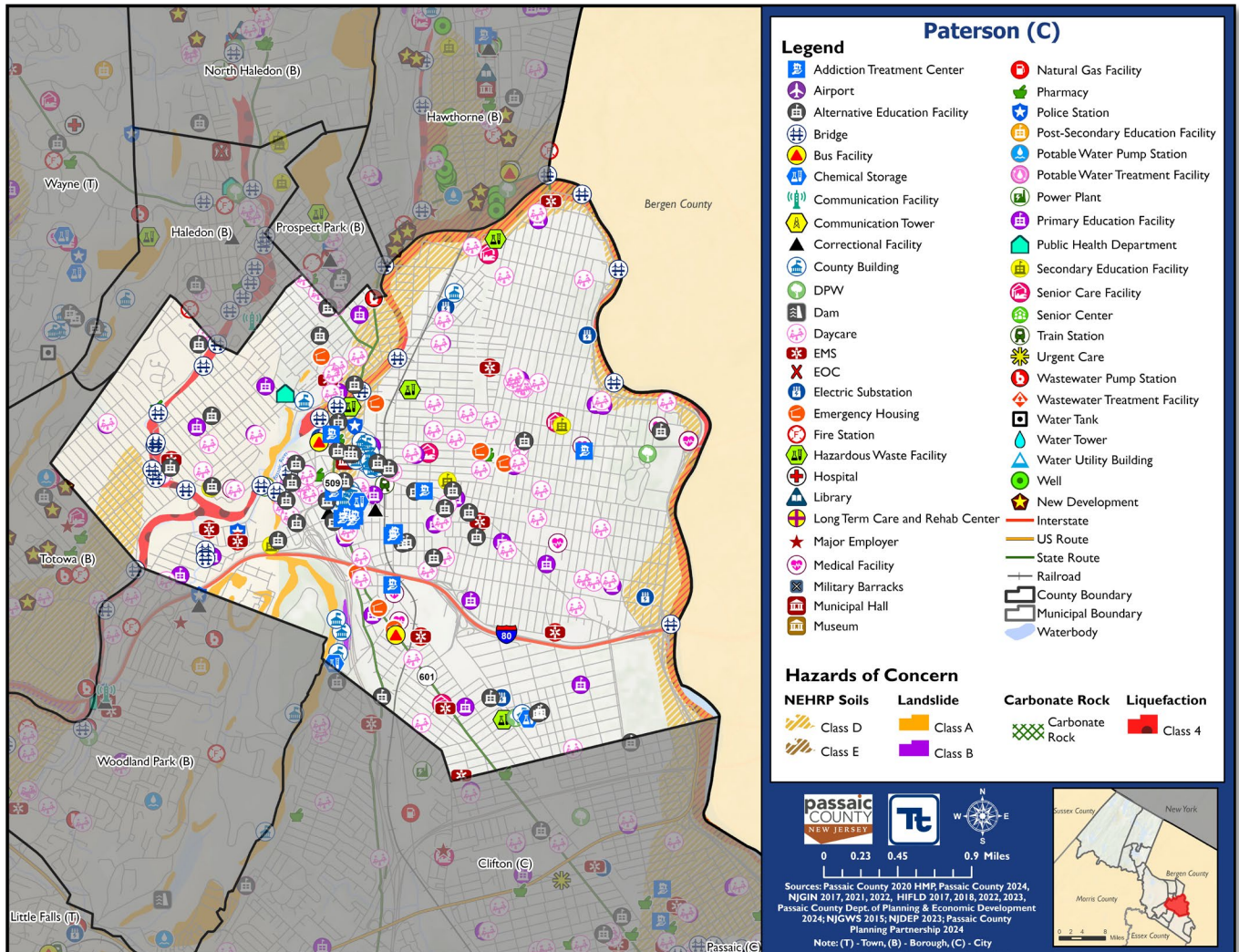
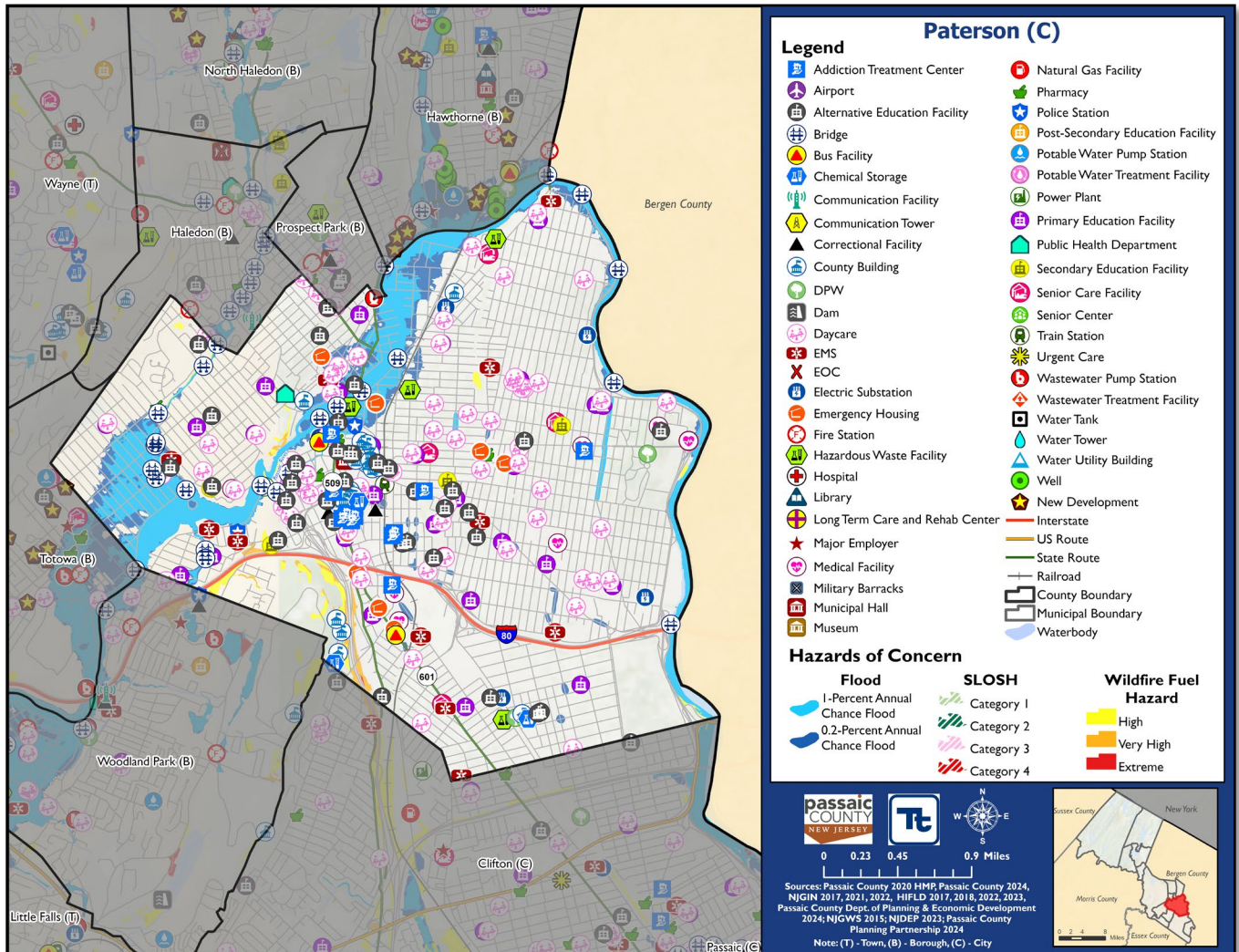






Figure 2-2. Paterson Hazard Area Extent and Location Map 2





## 1.6.2 Hazard Event History

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

Table 2-14. Hazard Event History in Paterson

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Paterson
January 20, 2020- May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	The Pandemic caused a city wide shut down and Local and Nation State of Emergencies were put in place indefinitely. Curfews were also put in place for businesses and residents. As of September 26, 2023, Passaic County accounted for 7,530 positive cases of Covid-19, and 32 reported deaths (State of New Jersey, 2023)	All Public and Private schools closed and converted to remote learning causing crossing guards and bus companies a great loss in funding. Non-Essential employees were asked not to come into the offices and eventually were set up to work from home leaving most city offices closed to the public such as Fire Prevention Office, Municipal and Federal Court and offices, etc. and citizens were unable to pay their bills, Due to insufficient PPE in the beginning, some EMS and Law Enforcement duties could not be carried out as effectively as they could with proper PPE.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and riverine and flash floods. Rainfall totals exceed three inches in parts of County; four water rescues occurred due to flash floodings.	Debris from the flash flooding on the streets caused severe clogging of sewers. Many residents in low lying areas had to leave their homes and lost power which led to loss of food and personal items. Numerous city roads and bridges had to be shut down to prevent injury to residents and public Safety workers. Fallen trees and downed power lines caused dangerous conditions for residents, Public Safety and Public Works employees. Overtime pay had to be



Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Paterson
December 17-23, 2023	Flood		Over five inches of rainfall resulted in major flooding and power outages in the region. Local Stat of Emergency and evacuations were declared during the initial storm and subsequent riverine flooding.	given to all employees who worked after hours during this event.  Debris from the flash flooding on the streets caused severe clogging of sewers and the rivers debris caused dangerous conditions in streets and sidewalks. Many residents in low lying areas had to leave their homes and lost power which led to loss of food and personal items. Temporary shelter had to be provided for evacuees. Numerous city roads and bridges had to be shut down. Garbage could not be picked up in flooded areas. Overtime pay had to be given to employees who worked after hours during the event.

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

### 1.6.3 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 Paterson.

#### 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. Paterson 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:

- The City of Paterson faces significant challenges due to repetitive and severe repetitive loss properties caused by frequent flooding and its aging stormwater management system, which is inadequate to handle increasing stormwater runoff and the impacts of climate change. Also, the City experienced significant flash flooding in 2021 and 2023. As a result, the ranking for Flood was updated from Medium to High.





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

Table 2-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Drought	Medium
Extreme Temperature	Medium
Flood	High
Geological Hazards	Low
Severe Weather	Medium
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*

### Critical Facilities

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

Table 2-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
1600009	Bridge	Yes	Yes
1600010	Bridge	Yes	Yes
1600014	Bridge	Yes	Yes
1600015	Bridge	Yes	Yes
1600016	Bridge	Yes	Yes
1600017	Bridge	Yes	Yes
1600018	Bridge	Yes	Yes
1600096	Bridge	No	Yes
1600097	Bridge	Yes	Yes
1600112	Bridge	Yes	Yes
1600113	Bridge	Yes	Yes
1600114	Bridge	Yes	Yes
1600115	Bridge	Yes	Yes
1600116	Bridge	No	Yes
1600117	Bridge	Yes	Yes
1600211	Bridge	Yes	Yes



Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
1600476	Bridge	Yes	Yes
0200-11C (I-86 "old");1600086	Bridge	Yes	Yes
0200-17E (I-8 "old");16000008	Bridge	Yes	Yes
Boys and Girls Club of Paterson/Passaic – School 4	Daycare	Yes	Yes
C.A.M.P. Youth Development Program Corp.	Daycare	Yes	Yes
Covanta Sustainable Solutions	Hazardous Waste Facility	Yes	Yes
Don Bosco Technology Academy	Alternative Education Facility	No	Yes
Gifted & Talented Academy @ School 28	Alternative Education Facility	Yes	Yes
Mud Pies Learning Center LLC	Daycare	Yes	Yes
Number 28 E.S.	Primary Education Facility	No	Yes
Number 4 E.S.	Primary Education Facility	Yes	Yes
OEM	EOC	No	Yes
Paterson Charter School for Sci&Tech K-1	Alternative Education Facility	No	Yes
Paterson Day Care 100	Daycare	Yes	Yes
Paterson FD - Headquarters	EMS	No	Yes
Paterson FD - Headquarters	Fire Station	No	Yes
Paterson FD - Hillcrest Firehouse	EMS	No	Yes
Paterson FD - Hillcrest Firehouse	Fire Station	No	Yes
Paterson Great Falls Hydro Electrical Plant	Power Plant	Yes	Yes
Prospect Park Sewage Collection Pit	Wastewater Pump Station	No	Yes
St. Paul's Community Development Corporation-Women Living Independently	Emergency Housing	Yes	Yes
St.Peter's Haven	Emergency Housing	Yes	Yes
Starlet Academy	Daycare	No	Yes
The Guardian Child Care Center LLC	Daycare	No	Yes
Walgreens - 3379	Pharmacy	No	Yes
		Yes	Yes

Source: Passaic County 2020 HMP; Passaic County 2024; NJGIN 2017, 2021, 2022; HIFLD 2017, 2018, 2022, 2023; Passaic County Department of Planning & Economic Development 2024

No high hazard damages are located in the City.



## 1.6.4 Identified Issues

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

- The City of Paterson lacks a dedicated logistics vehicle, which is crucial for effective emergency response. This vehicle is needed to address various hazard events, including Dam Failure, Drought, Extreme Temperature, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire. Without a logistics vehicle, the city's ability to transport emergency supplies, equipment, and personnel is severely limited, leading to delayed response times and increased vulnerability for residents. Acquiring this vehicle will enhance Paterson's preparedness and resilience, ensuring timely and effective mitigation of hazard events.
- The City of Paterson faces significant challenges due to repetitive and severe repetitive loss properties caused by frequent flooding. These properties are highly vulnerable to hazard events, leading to recurring damage and financial strain on the community. Effective mitigation of these hazard-prone structures is essential to reduce future losses and enhance the city's resilience.
- The City of Paterson faces a significant challenge in maintaining effective communication during emergencies due to power outages that can interrupt the emergency broadcast system. This disruption can hinder the ability to alert citizens and motorists about critical emergency actions, such as evacuations and traffic diversions, potentially putting lives at risk.
- The City is facing significant challenges with its aging stormwater management system, which is inadequate to handle increasing stormwater runoff and the impacts of climate change. This inadequacy has led to frequent flooding, water pollution, and infrastructure damage. Additionally, the City is vulnerable to a range of hazards, including dam failure, drought, extreme temperatures, geological hazards, severe weather, severe winter weather, and wildfires. There is a pressing need for a comprehensive approach to update the stormwater management system and integrate climate adaptation measures to ensure the city's resilience and sustainability.
- Gifted & Talented Academy at School 28 and Number 4 Elementary School are located in the 100-year floodplain, making them highly vulnerable to flooding. This exposure poses significant risks to the safety of students and staff, as well as potential damage to school facilities and disruption of educational activities.
- The Paterson Great Falls Hydro Electrical Plant is situated within the 100-year floodplain, making it vulnerable to significant flood exposure. This poses a risk to the facility's operations, safety, and the surrounding community.
- The City, as the County seat, faces a critical shortage of warming shelters. Existing shelters fill up very quickly, leaving many residents without adequate protection during cold weather events.
- The City currently lacks a well-equipped Hazardous Materials Team to effectively respond to hazardous material situations. This deficiency poses a significant risk to public safety and environmental health. Additionally, this problem is part of a broader challenge, as the City needs to enhance its preparedness and response capabilities for all hazards, including dam failure, drought, extreme temperatures, floods, geological hazards, severe weather, severe winter weather, and wildfires.
- The City faces significant challenges with its combined sewerage overflow (CSO) system, which leads to the release of untreated sewage and frequent flooding during heavy rainfall events. This situation poses environmental hazards, public health risks, and property damage concerns for residents.
- The City has not adopted the Code Coordinated Ordinance.
- The City does not have a Substantial Damage Response Plan or a Debris Management Plan.
- The City does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensure those that bear it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.



## 1.7 MITIGATION STRATEGY AND PRIORITIZATION

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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.

### 1.7.1 Past Mitigation Action Status

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

### 1.7.2 Additional Mitigation Efforts

The City of Paterson did not identify additional mitigation actions completed since the last plan other than those shown in Table 2-17.



Table 2-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Paterson-001	Molly Ann Brook mechanical screen	Flood, Severe Storm	Paterson DPW	Mechanical operated trash screen is in need of replacement.  Replacement of manually operated trash screen on Molly Ann Brook with mechanical screen.	1. Complete 2.	1. Discontinue 2. Not Applicable 3. Action is Complete
2020-Paterson-002	Train Public Information Officer in hazard mitigation concepts	All hazards	Public Information Officer, Administration	The City's public information officer lacks hazard mitigation training.  Train Public Information Officer to inform and educate citizens, property owners about hazards and mitigation with the potential of initiating national programs.	1. Complete 2.	1. Discontinue 2. Not Application 3. Action is Complete



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Paterson-003	Logistics vehicle	All hazards	Fire Department, Administration	The City lacks a logistics vehicle.  Purchase logistics vehicle for transportation of critical resources	1 2	1. Include in 2025 HMP 2. Keep as is 3. Not Applicable
2020-Paterson-004	Certified Floodplain Manager	Flood	Economic Development, Administration	The floodplain manager needs additional training.  The floodplain manager will undergo training to become a certified floodplain manager.	1. In Progress 2. Currently, in progress hiring a floodplain manager.	1. Include in 2025 HMP 2. Keep as is 3. Not Applicable



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-Paterson-005	Mitigation of hazard vulnerable structures	Flood, Severe Storm	Floodplain Administrator	<p>The City flood repetitive loss properties and severe repetitive loss properties.</p> <p>Support the mitigation of hazard vulnerable structures including the acquisition of Repetitive and Severe Repetitive Loss properties. Conduct outreach to develop a list of property owners that want to mitigate. Set up a multi-year plan to prioritize and apply for FEMA grant funding.</p>	<p>1. No Progress</p> <p>2.</p>	<p>1. Discontinue</p> <p>2. Not Applicable</p> <p>3. City recommended this not move forward.</p>





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-Paterson-006	Ensure continuity of operations	All hazards	Facilities	<p>Critical facilities require backup power to ensure continuity of operations.</p> <p>Purchase portable generators for critical infrastructure Obtain backup power for shelter at Riverside Vets Community Center.</p>	<p>1. No Progress</p> <p>2.</p>	<p>1. Discontinue</p> <p>2. Not Applicable</p> <p>3. City recommended this not move forward.</p>
2020-Paterson-007	Relocate Emergency Communications System outside of designated Flood Plain	Flood	Fire Department	<p>Currently the Public Safety Answering Point is located in the floodplain.</p> <p>Design/construct a new Emergency Communications System outside of designated Flood Plain. A new structure has been identified and plans are being finalized.</p>	<p>1. No Progress</p> <p>2.</p>	<p>1. Discontinue</p> <p>2. Not Applicable</p> <p>3. City recommended this not move forward.</p>



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-Paterson-008	Relocate police headquarters out of floodplain	Flood	City of Paterson Police Department	Currently police headquarters is flood prone and has experienced losses.  Relocate/construct a new Municipal/City Complex outside of flood hazard area.	1. No Progress 2	1. Discontinue 2. Not Applicable 3. City recommended this not move forward.
2020-Paterson-009	Relocate Temple Street fire house out of floodplain	Flood	Fire Department	The fire house on Temple Street is flood prone.  Construct a new fire house outside of the flood hazard area.	1. No Progress 2	1. Discontinue 2. Not Applicable 3. City recommended this not move forward.
2020-Paterson-010	Relocate Hillcrest fire house out of floodplain	Flood	Fire Department	The Hillcrest fire house is flood prone.  Construct a new fire house outside of the flood hazard area.	1. No Progress 2	1. Discontinue 2. Not Applicable 3. City recommended this not move forward.



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-Paterson-011	Mobile communication system for first response vehicles	All hazards	Fire Department, Administration	Purchase and install a mobile communication system for first response vehicles that would greatly enhance the response to large scale emergencies	1. No Progress 2. City of Paterson Fire Department has a unit called Field Com that is setup as our mobile communication system. All 3 alarm fire and larger and major incident this unit is deployed and staffed with a dispatcher and staff to support incident.	1. Discontinue 2. Not Applicable 3. City recommended this not move forward.



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-Paterson-012	Portable emergency broadcast system	All hazards	Fire Department	<p>Power outages can interrupt the emergency broadcast system.</p> <p>Purchase a portable emergency broadcast system that can be placed in a mobile command center or at any scene that can alert citizens as well as motorists of emergency alerts and actions that can include evacuations and traffic diversions that need to be adhered to during an emergency.</p>	<p>1. In Progress 2. Everbridge was budgeted by City of Paterson.</p>	<p>1. Include in 2025 HMP 2. Keep as is 3. Not Applicable</p>



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-Paterson-013	Develop place-based stormwater management and flood control strategies and identify implementable climate adaptation action steps	Flood, All hazards	Engineering	<p>The city needs to implement stormwater management measures and climate adaptation actions.</p> <p>Develop a framework for green infrastructure, including cost-effective, long-term solutions to update the aging system and integrate source controls into the design and construction of public improvement, private development, open space and right-of-way projects.</p>	<p>1. In Progress</p> <p>2</p>	<p>1. Include in 2025 HMP</p> <p>2. Keep as is</p> <p>3. Not Applicable</p>



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-Paterson-014	Conduct outreach to schools located in the 100-year floodplain.	Flood	FPA, facility managers	<p>Gifted &amp; Talented Academy @ School 28 and Number 4 E.S. are located in the 100-year floodplain.</p> <p>Discuss flood exposure with facility managers. Discuss possible mitigation measures that could be taken.</p>	<ol style="list-style-type: none"> <li>In Progress</li> <li>Purchasing temporary dams</li> </ol>	<ol style="list-style-type: none"> <li>Include in 2025 HMP</li> <li>Keep as is</li> <li>Not Applicable</li> </ol>
2020-Paterson-015	Conduct outreach to Paterson Great Falls Hydro Electrical Plant	Flood	FPA, facility manager	<p>Paterson Great Falls Hydro Electrical Plant is located in the 100-year floodplain.</p> <p>Discuss flood exposure with facility manager. Discuss possible mitigation measures that could be taken.</p>	<ol style="list-style-type: none"> <li>In Progress</li> <li>Working on in progress flood resilience wall along river.</li> </ol>	<ol style="list-style-type: none"> <li>Include in 2025 HMP</li> <li>Keep as is</li> <li>Not Applicable</li> </ol>



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-Paterson-016	Warming shelters.	Extreme Temperature	Office of Emergency Management	The City needs additional warming shelters. As County seat, shelters get filled up very quickly.  The City will develop additional warming shelters	1. No Progress 2	1. Include in 2025 HMP 2. Keep as is 3. Not Applicable
2020-Paterson-017	Flood protection for St. Joseph's Hospital.	Flood, Severe Storm	FPA, Facility manager	Flooding occurs at St. Joseph's Hospital.  The City will conduct outreach to St. Joseph's Hospital and discuss potential mitigation actions.	1. No Progress 2	1. Discontinue 2. Not Applicable 3. City recommended this not move forward.
2020-Paterson-018	Establish fully staffed and equipped Hazardous Materials Team	All hazards	OEM	The City needs a well-equipped Hazardous Materials Team to respond to hazardous material situations.  The City will staff and equip a Hazardous Materials Team.	1. In Progress 2. Working on grant for funding.	1. Include in 2025 HMP 2. Keep as is 3. Not Applicable





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-Paterson-019	Implement Long Term Control Plan	Flood, Severe Storm, Hazardous Substances	Engineering	<p>The City is adopting a Long-Term Control Plan to separate the combined sewerage overflow system in fall 2020 to reduce release of sewage and reduce flooding.</p> <p>The City will implement the selected elements of the Long-Term Control Plan to separate the combined sewerage overflow system.</p>	<ol style="list-style-type: none"> <li>1. In Progress</li> <li>2. Working on grant for combined sewage overflow.</li> </ol>	<ol style="list-style-type: none"> <li>1. Include in 2025 HMP</li> <li>2. Keep as is</li> <li>3. Not applicable</li> </ol>



### 1.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Paterson 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 Paterson 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 2-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

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



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

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

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

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

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

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

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

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

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

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

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

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



Table 2-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-Patero nC-001	Logistics Vehicle	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
2025-Patero nC-002	Mitigation of Hazard Vulnerable Structures	1	1	1	1	1	0	1	1	0	1	1	0	1	1	11	High
2025-Patero nC-003	Portable Emergency Broadcast System	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
2025-Patero nC-004	Localized Stormwater Management and Climate Adaption Strategies	0	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High
2025-Patero nC-005	Flood Awareness and Preparedness Outreach for Schools in High-Risk Areas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2025-Patero nC-006	Outreach to Paterson Great Falls Hydro Electrical Plant	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-Patero nC-007	Warming Shelters	1	1	1	1	1	1	1	1	1	1	1	0	1	1	13	High
2025-Patero nC-008	Staff and Equip Hazardous Material Team	1	1	0	1	1	0	1	1	1	1	1	1	1	1	12	High
2025-Patero nC-009	Implement Long Term Control Plan	0	1	0	1	1	0	1	1	1	1	1	0	1	1	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-PaterstonC-010	Certified Floodplain Manager	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High

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



Action 2025-PatersonC-001. Logistics Vehicle

Lead Agency:	City of Paterson Fire Department
Supporting Agencies:	Administration
Hazard(s) of Concern:	Dam Failure, Drought, Extreme Temperature, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	<p>The City of Paterson lacks a dedicated logistics vehicle, which is crucial for effective emergency response. This vehicle is needed to address various hazard events, including:</p> <ul style="list-style-type: none"> <li>- Dam Failure</li> <li>- Drought</li> <li>- Extreme Temperature</li> <li>- Flood</li> <li>- Geological Hazards</li> <li>- Severe Weather</li> <li>- Severe Winter Weather</li> <li>- Wildfire</li> </ul> <p>Without a logistics vehicle, the city's ability to transport emergency supplies, equipment, and personnel is severely limited, leading to delayed response times and increased vulnerability for residents. Acquiring this vehicle will enhance Paterson's preparedness and resilience, ensuring timely and effective mitigation of hazard events.</p>
Description of the Solution:	The Paterson Fire Department will purchase a logistics vehicle to enhance the transportation of critical resources. This vehicle will be used to efficiently move emergency supplies, equipment, and personnel, ensuring a swift and effective response to various hazard events. By acquiring this logistics vehicle, the fire department will significantly improve its operational capabilities, thereby increasing the city's overall preparedness and resilience.
Estimated Cost:	Medium
Potential Funding Sources:	Emergency Management Grant
Implementation Timeline:	1-2 years
Goals Met:	5,6
Benefits:	Acquiring a logistics vehicle will significantly enhance the City of Paterson's emergency response capabilities, ensuring timely and efficient transportation of critical resources during hazard events.
Impact on Socially Vulnerable Populations:	The logistics vehicle will enable faster and more effective delivery of emergency supplies and services to socially vulnerable populations, such as the elderly, low-income families, and individuals with disabilities. This will help reduce their risk and improve their resilience during disasters.
Impact on Future Development:	By improving emergency response capabilities, the logistics vehicle will support safer and more resilient future development in the City of Paterson. It will ensure that new developments are better protected from hazard events, encouraging sustainable growth and community confidence.
Impact on Critical Facilities/Lifelines:	The logistics vehicle will enhance the protection and functionality of critical facilities and lifelines, such as hospitals, schools, and utilities. It will ensure that these essential services remain operational during emergencies, minimizing disruptions and safeguarding public health and safety.



<b>Impact on Capabilities:</b>	The addition of a logistics vehicle will significantly boost the fire department's operational capabilities. It will improve response times, resource distribution, and overall efficiency in managing hazard events, leading to a more robust emergency management system.	
<b>Climate Change Considerations:</b>	Climate change is expected to increase the frequency and severity of hazard events, such as extreme weather, floods, and wildfires. The logistics vehicle will be crucial in addressing these challenges by ensuring that the City of Paterson is better equipped to respond to and mitigate the impacts of climate change-related disasters. This proactive measure will enhance the City's resilience and adaptability in the face of a changing climate.	
<b>Mitigation Category</b>	Local Plans and Regulations	
<b>CRS Category</b>	Emergency Services	
<b>Priority</b>	High	
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>
	No Action	-
	Leasing a Logistics Vehicle	Higher long-term expenses.
	Relying on Mutual Aid	Not a reliable option during a widespread event.



Action 2025-PatersonC-002. Mitigation of Hazard Vulnerable Structures

Lead Agency:	Floodplain Administrator	
Supporting Agencies:	Property Owners	
Hazard(s) of Concern:	Flood, Severe Weather	
Description of the Problem:	The City of Paterson faces significant challenges due to repetitive and severe repetitive loss properties caused by frequent flooding. These properties are highly vulnerable to hazard events, leading to recurring damage and financial strain on the community. Effective mitigation of these hazard-prone structures is essential to reduce future losses and enhance the city's resilience.	
Description of the Solution:	To address the issue of repetitive and severe repetitive loss properties due to frequent flooding, the City of Paterson will implement a comprehensive mitigation strategy. This strategy includes supporting the mitigation of vulnerable structures by acquiring and addressing repetitive and severe repetitive loss properties to reduce future flood damage. Additionally, the City will conduct targeted outreach to develop a list of property owners interested in mitigation efforts. A multi-year plan will be established to prioritize these properties for mitigation and to apply for FEMA funding to support these initiatives. This approach aims to protect vulnerable structures, minimize the impact of future flooding, and enhance the overall safety and resilience of the community.	
Estimated Cost:	High	
Potential Funding Sources:	BRIC, HMGP, FMA, match from property owners	
Implementation Timeline:	Within 5 years	
Goals Met:	1,2,3	
Benefits:	Eliminates flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.	
Impact on Socially Vulnerable Populations:	Removing homes from the floodplain immediately removes the risk to life and property. Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.	
Impact on Future Development:	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.	
Impact on Critical Facilities/Lifelines:	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.	
Impact on Capabilities:	Removing the risk from the immediate floodplain via acquisition of properties will free up resources for search and rescue and other emergency operations as needed.	
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of severe rainfall, flash flooding, riverine flooding, and coastal flooding from sea level rise and storm surge events. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternatives:	Action	Evaluation





## 1.0. City of Paterson

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



Action 2025-PatersonC-003. Portable Emergency Broadcast System

Lead Agency:	City of Paterson Fire Department
Supporting Agencies:	-
Hazard(s) of Concern:	Dam Failure, Drought, Extreme Temperature, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	The City of Paterson faces a significant challenge in maintaining effective communication during emergencies due to power outages that can interrupt the emergency broadcast system. This disruption can hinder the ability to alert citizens and motorists about critical emergency actions, such as evacuations and traffic diversions, potentially putting lives at risk.
Description of the Solution:	To address this issue, the City of Paterson Fire Department will purchase a portable emergency broadcast system. This system can be deployed in a mobile command center or at any emergency scene to ensure continuous communication with citizens and motorists. It will provide real-time alerts and instructions during emergencies, including evacuations and traffic diversions. Additionally, the City has budgeted for the Everbridge system within its budget, further enhancing its emergency communication capabilities. This comprehensive approach will ensure that the City can effectively manage and communicate during power outages and other emergencies, thereby safeguarding the community.
Estimated Cost:	Low
Potential Funding Sources:	Assistance to Firefighter Grant Program, municipal budget
Implementation Timeline:	1-2 years
Goals Met:	5,6
Benefits:	The purchase of a portable emergency broadcast system will ensure continuous communication during power outages, enhancing the city's ability to manage emergencies effectively. This will lead to improved public safety and a more resilient community.
Impact on Socially Vulnerable Populations:	Socially vulnerable populations, such as the elderly, low-income families, and individuals with disabilities, will benefit from timely and clear emergency alerts. This system will help ensure they receive critical information and instructions during emergencies, reducing their risk and improving their safety.
Impact on Future Development:	Reliable emergency communication infrastructure will support safer and more resilient future development in the City of Paterson. It will provide confidence to developers and residents that the city is well-prepared to handle emergencies, encouraging sustainable growth.
Impact on Critical Facilities/Lifelines:	The portable emergency broadcast system will help protect critical facilities and lifelines, such as hospitals, schools, and utilities, by ensuring they receive timely alerts and instructions during emergencies. This will minimize disruptions and maintain essential services during crises.
Impact on Capabilities:	The addition of the portable emergency broadcast system, along with the Everbridge system, will significantly enhance the City's emergency response capabilities. It will improve communication, coordination, and overall efficiency in managing hazard events, leading to a more robust and effective emergency management system.



<b>Climate Change Considerations:</b>	Climate change is increasing the frequency and severity of extreme weather events, leading to more frequent power outages. These outages disrupt emergency communication systems, making reliable communication even more critical. The portable emergency broadcast system will ensure that the City of Paterson can maintain effective communication during these events, providing real-time alerts and instructions to keep residents safe. This proactive measure enhances the City's resilience and adaptability in the face of climate change.	
<b>Mitigation Category</b>	Local Plans and Regulations	
<b>CRS Category</b>	Emergency Services	
<b>Priority</b>	High	
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>
	No Action	-
	Relying on traditional media outlets	They are dependent on power and may be compromised during severe weather events.
	Using Social Media Platform	Rely on internet connectivity which can be disrupted during power outages and extreme weather events.



Action 2025-PatersonC-004. Localized Stormwater Management and Climate Adaption Strategies

Lead Agency:	Paterson Engineering Department	
Supporting Agencies:	-	
Hazard(s) of Concern:	Dam Failure, Drought, Extreme Temperature, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	The City is facing significant challenges with its aging stormwater management system, which is inadequate to handle increasing stormwater runoff and the impacts of climate change. This inadequacy has led to frequent flooding, water pollution, and infrastructure damage. Additionally, the City is vulnerable to a range of hazards, including dam failure, drought, extreme temperatures, geological hazards, severe weather, severe winter weather, and wildfires. There is a pressing need for a comprehensive approach to update the stormwater management system and integrate climate adaptation measures to ensure the city's resilience and sustainability.	
Description of the Solution:	The City of Paterson Engineering Department will develop a framework for green infrastructure that includes cost-effective, long-term solutions to modernize the aging stormwater management system. This framework should incorporate source controls and be integrated into the design and construction of public improvement projects, private developments, open spaces, and right-of-way projects. By doing so, the city can effectively manage stormwater, reduce flooding, improve water quality, and enhance its resilience to climate change and various hazards.	
Estimated Cost:	Medium	
Potential Funding Sources:	Municipal budget	
Implementation Timeline:	Within 5 years	
Goals Met:	2,5	
Benefits:	Implementing the green infrastructure framework will create a more resilient and sustainable city by effectively managing stormwater, reducing flooding, and improving water quality, while also promoting social equity and economic growth.	
Impact on Socially Vulnerable Populations:	Enhanced water quality and reduced pollution lead to better health outcomes, particularly for communities with limited access to healthcare.	
Impact on Future Development:	The framework promotes sustainable development practices, ensuring that new projects are designed with resilience in mind.	
Impact on Critical Facilities/Lifelines:	Improved infrastructure ensures that lifelines such as transportation, water supply, and power remain functional during extreme weather events.	
Impact on Capabilities:	Implementing advanced stormwater management techniques provides opportunities for innovation and learning, positioning the city as a leader in climate adaptation and resilience.	
Climate Change Considerations:	Climate change intensifies the problem by increasing the frequency and strength of extreme weather events, such as heavy rainfall and severe storms, leading to more frequent and severe flooding. Additionally, rising temperatures and prolonged droughts can strain the aging stormwater management system, making it less effective. These changes increase the urgency for a comprehensive and resilient stormwater management solution.	
Mitigation Category	Local Plans and Regulation	
CRS Category	Preventative Measure, Structural Flood Control Projects	
Priority	High	
Alternatives:	Action	Evaluation



## 1.0. City of Paterson

	No Action	-
	Traditional Infrastructure Upgrade	Expensive
	Temporary flood barriers	Not sustainable for a long-term solution



Action 2025-PatersonC-005. Flood Awareness and Preparedness Outreach for Schools in High-Risk Areas

Lead Agency:	Floodplain Administrator
Supporting Agencies:	Facility Managers
Hazard(s) of Concern:	Flood, Severe Weather
Description of the Problem:	Gifted & Talented Academy at School 28 and Number 4 Elementary School are located in the 100-year floodplain, making them highly vulnerable to flooding. This exposure poses significant risks to the safety of students and staff, as well as potential damage to school facilities and disruption of educational activities.
Description of the Solution:	The Floodplain Administrator will conduct outreach to facility managers at Gifted & Talented Academy at School 28 and Number 4 Elementary School to discuss their flood exposure. Collaborate with them to identify and implement possible mitigation measures, such as elevating critical infrastructure, installing flood barriers, and developing emergency response plans. These actions will help reduce the risk of flood damage, ensure the safety of students and staff, and maintain the continuity of educational operations.
Estimated Cost:	Staff Time
Potential Funding Sources:	City Budget
Implementation Timeline:	1-2 years
Goals Met:	1,2,3,4,5,7
Benefits:	Implementing flood mitigation measures at Gifted & Talented Academy at School 28 and Number 4 Elementary School will significantly reduce the risk of flood damage, ensuring the safety of students and staff and maintaining the continuity of educational activities.
Impact on Socially Vulnerable Populations:	By protecting schools located in high-risk flood areas, we ensure that all students, including those from socially vulnerable populations, have a safe and secure learning environment. This action helps to prevent disruptions in education that can disproportionately affect these communities.
Impact on Future Development:	Proactively addressing flood risks at these schools sets a precedent for future development, encouraging the integration of resilient design and construction practices. This approach promotes sustainable growth and ensures that new projects are better prepared for climate-related challenges.
Impact on Critical Facilities/Lifelines:	Enhancing flood protection for schools, which are critical community facilities, ensures that they remain operational during and after flood events. This not only protects the physical infrastructure but also supports the broader community by providing safe havens and continuity of essential services.
Impact on Capabilities:	Implementing these mitigation measures strengthens the City's overall disaster preparedness and response capabilities. It fosters collaboration between school administrators and emergency management officials, enhancing the community's ability to effectively manage and mitigate flood risks.
Climate Change Considerations:	Climate change heightens the flood risk for Gifted & Talented Academy at School 28 and Number 4 Elementary School by increasing the frequency and intensity of extreme weather events, such as heavy rainfall and severe storms. These changes lead to higher flood levels and more frequent flooding, making it even more critical to implement effective mitigation measures to protect the schools and ensure the safety of students and staff.
Mitigation Category	Education and Awareness Programs
CRS Category	Public Information
Priority	High



## 1.0. City of Paterson

Alternatives:	Action	Evaluation
	No Action	-
	Relocating the schools	High cost; Disruption of operations
	Temporary flood barriers	Not a sustainable long-term solution



Action 2025-PatersonC-006. Outreach to Paterson Great Falls Hydro Electrical Plant

Lead Agency:	Floodplain Administrator	
Supporting Agencies:	Hydro Electrical plant Facility Manager	
Hazard(s) of Concern:	Flood	
Description of the Problem:	The Paterson Great Falls Hydro Electrical Plant is situated within the 100-year floodplain, making it vulnerable to significant flood exposure. This poses a risk to the facility's operations, safety, and the surrounding community.	
Description of the Solution:	The City of Paterson Floodplain Administrator will conduct outreach to the Paterson Great Falls Hydro Electrical Plant to discuss flood exposure with the facility manager. They will collaborate to identify and implement potential mitigation measures to reduce the risk of flood damage and enhance the facility's resilience to flooding events. This will include integrating the ongoing construction of a flood resilience wall along the river.	
Estimated Cost:	Staff Time	
Potential Funding Sources:	City budget	
Implementation Timeline:	1-2 years	
Goals Met:	2,5,6	
Benefits:	Implementing flood mitigation measures at the Paterson Great Falls Hydro Electrical Plant will significantly reduce the risk of flood damage, ensuring the facility's continuous operation and safeguarding the surrounding community.	
Impact on Socially Vulnerable Populations:	By enhancing flood protection at the hydroelectric plant, the City of Paterson is prioritizing the safety and well-being of socially vulnerable populations who are often disproportionately affected by natural disasters.	
Impact on Future Development:	Strengthening flood resilience at critical infrastructure sites like the hydroelectric plant will encourage sustainable future development in the area, fostering economic growth and community stability.	
Impact on Critical Facilities/Lifelines:	Improving flood defenses at the hydroelectric plant will protect a vital source of electricity, ensuring that critical facilities and lifelines remain operational during and after flood events.	
Impact on Capabilities:	The implementation of these mitigation measures will enhance the overall disaster preparedness and response capabilities of the City of Paterson, making the community more resilient to future flooding events.	
Climate Change Considerations:	Climate change is expected to increase the frequency and severity of flooding events. The solution should account for these changes by designing mitigation measures that can handle more extreme and frequent flood scenarios.	
Mitigation Category	Education and Awareness Programs	
CRS Category	Public Information	
Priority	High	
Alternatives:	<b>Action</b>	<b>Evaluation</b>
	No Action	-
	Relocate the Hydro Electrical Plant	High costs
	Temporary Flood Barrier	Not a reliable permanent solution





Action 2025-PatersonC-007. Warming Shelters

Lead Agency:	Office of Emergency Management	
Supporting Agencies:	-	
Hazard(s) of Concern:	Extreme Temperature, Severe Winter Weather	
Description of the Problem:	The City, as the County seat, faces a critical shortage of warming shelters. Existing shelters fill up very quickly, leaving many residents without adequate protection during cold weather events.	
Description of the Solution:	The City's Office of Emergency Management will develop additional warming shelters to accommodate the growing demand and ensure that all residents have access to safe and warm shelter during cold weather conditions.	
Estimated Cost:	Medium	
Potential Funding Sources:	City Budget	
Implementation Timeline:	Within 5 years	
Goals Met:	1,7	
Benefits:	Developing additional warming shelters will ensure that all residents have access to safe and warm shelter during cold weather events, significantly enhancing community safety and well-being.	
Impact on Socially Vulnerable Populations:	By increasing the number of warming shelters, the City will provide crucial support to socially vulnerable populations, including the homeless and low-income individuals, ensuring they have a safe place to stay during extreme cold.	
Impact on Future Development:	The establishment of additional warming shelters will demonstrate the City's commitment to public safety and resilience, encouraging future development and investment in the community by showcasing a proactive approach to addressing residents' needs.	
Impact on Critical Facilities/Lifelines:	Additional warming shelters will reduce the strain on existing critical facilities and lifelines, such as hospitals and emergency services, by providing a designated space for those in need during cold weather events.	
Impact on Capabilities:	Expanding the network of warming shelters will enhance the City's overall emergency preparedness and response capabilities, ensuring that the community is better equipped to handle cold weather emergencies and protect its residents.	
Climate Change Considerations:	Climate change increases the frequency and severity of extreme cold weather events, making the development of additional warming shelters essential to protect vulnerable populations and ensure community safety.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Emergency Services	
Priority	High	
Alternatives:	<b>Action</b>	<b>Evaluation</b>
	No Action	-
	Utilize existing public buildings as temporary shelters.	Public buildings may not always be available.
	Provide financial assistance for heating costs.	This assistance may not reach all those in need.



Action 2025-PatersonC-008. Staff and Equip Hazardous Material Team

Lead Agency:	Office of Emergency Management	
Supporting Agencies:	-	
Hazard(s) of Concern:	Dam Failure, Drought, Extreme Temperature, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	The City currently lacks a well-equipped Hazardous Materials Team to effectively respond to hazardous material situations. This deficiency poses a significant risk to public safety and environmental health. Additionally, this problem is part of a broader challenge, as the City needs to enhance its preparedness and response capabilities for all hazards, including dam failure, drought, extreme temperatures, floods, geological hazards, severe weather, severe winter weather, and wildfires.	
Description of the Solution:	The City's Office of Emergency Management will staff and equip a dedicated Hazardous Materials Team to ensure a rapid and effective response to hazardous material incidents. This initiative is a critical component of the City's comprehensive strategy to improve resilience and safety across all hazard scenarios. The City is actively working on securing a grant to fund the establishment and operation of this team, ensuring sustainable and robust protection for its residents and environment.	
Estimated Cost:	Medium	
Potential Funding Sources:	City Budget	
Implementation Timeline:	Within 3 years	
Goals Met:	1,5,7	
Benefits:	Establishing a well-equipped Hazardous Materials Team will significantly enhance the City's ability to respond swiftly and effectively to hazardous material incidents, ensuring public safety and environmental protection.	
Impact on Socially Vulnerable Populations:	By having a dedicated Hazardous Materials Team, the City will better protect socially vulnerable populations who are often at greater risk during hazardous material incidents, ensuring equitable safety measures for all residents.	
Impact on Future Development:	The presence of a specialized Hazardous Materials Team will make the City more attractive for future development and investment, as businesses and residents will have greater confidence in the City's emergency response capabilities.	
Impact on Critical Facilities/Lifelines:	A well-equipped Hazardous Materials Team will safeguard critical facilities and lifelines, such as hospitals, schools, and infrastructure, by ensuring rapid containment and mitigation of hazardous material threats.	
Impact on Capabilities:	Enhancing the City's hazardous materials response capabilities will improve overall emergency preparedness and resilience, enabling the City to effectively manage a wide range of hazards, including dam failure, drought, extreme temperatures, floods, geological hazards, severe weather, severe winter weather, and wildfires.	
Climate Change Considerations:	Climate change increases the frequency and severity of extreme weather events, which can lead to more hazardous material incidents. Establishing a well-equipped Hazardous Materials Team is essential to effectively manage these risks and protect public safety.	
Mitigation Category	Local Plans and Regulation	
CRS Category	Emergency Services	
Priority	High	
Alternatives:	Action	Evaluation



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	No Action	-
	Contract a private company	Could lead to longer response times.
	Provide training to emergency personnel	Emergency personnel may not possess required specialty skills and equipment needed.



Action 2025-PatersonC-009. Implement Long Term Control Plan

Lead Agency:	City of Paterson Engineering	
Supporting Agencies:	-	
Hazard(s) of Concern:	Flood, Severe Weather	
Description of the Problem:	The City faces significant challenges with its combined sewerage overflow (CSO) system, which leads to the release of untreated sewage and frequent flooding during heavy rainfall events. This situation poses environmental hazards, public health risks, and property damage concerns for residents.	
Description of the Solution:	To address these issues, the City's Engineering Department will adopt and implement a Long-Term Control Plan starting in fall 2020. This plan involves separating the combined sewerage overflow system, which will significantly reduce the release of untreated sewage and mitigate flooding. Additionally, the City is actively working on securing a grant to support the implementation of the CSO separation project. By executing the selected elements of this plan and obtaining necessary funding, the City aims to enhance environmental protection, improve public health, and safeguard properties from flood damage	
Estimated Cost:	High	
Potential Funding Sources:	City Budget, HMGP, State and Federal sources	
Implementation Timeline:	Within 5 years	
Goals Met:	1,2,7	
Benefits:	The implementation of the Long-Term Control Plan to separate the combined sewerage overflow system will significantly reduce the release of untreated sewage and mitigate flooding. This will lead to a cleaner environment, improved public health, and enhanced property protection.	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations will benefit greatly from the reduction in flooding and sewage overflows, as these communities are often disproportionately affected by such issues. The plan will help ensure a safer and healthier living environment for all residents.	
Impact on Future Development:	By addressing the CSO issues, the City will create a more attractive and resilient environment for future development. This will encourage investment and growth, leading to economic benefits and improved quality of life for residents.	
Impact on Critical Facilities/Lifelines:	The separation of the combined sewerage overflow system will protect critical facilities and lifelines from flooding and sewage-related disruptions. This will enhance the reliability and functionality of essential services, ensuring they remain operational during adverse weather conditions.	
Impact on Capabilities:	The successful implementation of the Long-Term Control Plan will strengthen the City's capabilities in managing stormwater and sewage systems. This will improve the City's overall resilience to environmental challenges and enhance its ability to respond to future hazards effectively.	
Climate Change Considerations:	To address the challenges posed by climate change, the City should assess future risks and incorporate adaptation strategies into the Long-Term Control Plan. This will ensure the sewerage system remains resilient, protecting critical facilities and vulnerable communities from increased flooding and sewage overflows.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects	
Priority	Medium	
Alternatives:	Action	Evaluation



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	No Action	-
	Partial separation, targeting only the most flood-prone areas	This would not completely solve the issue, leaving some areas still vulnerable to flooding and sewage overflow
	Increase storage capacity	Does not address the root cause of the problem



Action 2025-PatersonC-010. Certified Floodplain Manager

Lead Agency:	Economic Development	
Supporting Agencies:	City Administration	
Hazard(s) of Concern:	Flood	
Description of the Problem:	The City does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensure those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.	
Description of the Solution:	The City is currently in the process of hiring a floodplain manager. In addition, the floodplain manager will be provided training and/or certification with NFIP regulations and floodplain management ordinances.	
Estimated Cost:	Low	
Potential Funding Sources:	City Budget	
Implementation Timeline:	1-5 years	
Goals Met:	1,2,5,8	
Benefits:	This action will increase the NFIP capabilities of the City and assure the City's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.	
Impact on Socially Vulnerable Populations:	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.	
Impact on Future Development:	Officials that understand best practices in floodplain management have the opportunity to influence future development and prevent unsafe building in hazard areas.	
Impact on Critical Facilities/Lifelines:	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.	
Impact on Capabilities:	This action will enhance the City's current NFIP capabilities.	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related events. This action will educate staff on NFIP regulations to assist with the flood hazard.	
Mitigation Category	Education and Awareness Programs	
CRS Category	Public Information	
Priority	High	
Alternatives:	<b>Action</b>	<b>Evaluation</b>
	No Action	-
	Hire outside contractors for floodplain administration	Costly
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role