



## 6. TOWN OF HARRISON

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

### 6.1 Hazard Mitigation Planning Team

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

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

**Table 6-1. Hazard Mitigation Planning Team**

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



Name/Title:

Method of Participation:

Name/Title:

Method of Participation:

## 6.2 Community Profile

### 6.2.1 Brief History

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

### 6.2.2 Location

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

### 6.2.3 Governing Body Format

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

### 6.2.4 Population and Social Vulnerability

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

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



#### 6.2.4.1 ALICE IN HUDSON COUNTY

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

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

### 6.3 Jurisdictional Capability Assessment and Integration

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

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

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

#### 6.3.1 Planning and Regulatory Capability and Integration

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



**Table 6-2. Planning and Regulatory Capability and Integration**

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



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



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.</p> <p>The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:</p> <ul style="list-style-type: none"> <li>• 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?</li> <li>• 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.</li> <li>• 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.</li> <li>• Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.</li> <li>• 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.</li> <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>Not all provisions of this law have become effective at the time of the writing of this plan.</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>Growth Management</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Environmental Protection Ordinance(s)</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Flood Damage Prevention Ordinance</b> How has or will this be integrated with the HMP and how does this reduce risk? The purposes and objectives of these regulations are to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific flood hazard areas through the establishment of comprehensive regulations for management of flood hazard areas, designed to: 1.Protect human life and health. 2.Prevent unnecessary disruption of commerce, access, and public service during times of flooding. 3.Manage the alteration of natural floodplains, stream channels and shorelines; 4.Manage filling, grading, dredging and other development which may increase flood damage or erosion potential. 5.Prevent or regulate the construction of flood barriers which will divert floodwater or increase flood hazards. 6.Contribute to improved construction techniques in the floodplain. 7.Minimize damage to public and private facilities and utilities. 8.Help maintain a stable tax base by providing for the sound use and development of flood hazard areas. 9.Minimize the need for rescue and relief efforts associated with flooding. 10.Ensure that property owners, occupants, and potential owners are aware of property located in flood hazard areas. 11.Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events. 12.Meet the requirements of the National Flood Insurance Program for community participation set forth in Title 44 Code of Federal Regulations, Section 59.22.  The chapter follows the model code coordinated ordinance.	Yes	Title 15 Buildings and Construction, Chapter 15.24 – Floodplain Management Regulations	Federal, State, County and Local	Construction and Engineering
<b>Wellhead Protection</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Emergency Management Ordinance</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Climate Change Ordinance</b> How has or will this be integrated with the HMP and how does this reduce risk?	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>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	Town of Harrison Master Plan Reexamination Report, 2020	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Capital Improvement Plan</b>	Yes	Municipal Budget	Local	Mayor and City Council
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Management Plan</b>	Yes	Municipal Stormwater Management Plan (MSWMP)	Local	Water and Sewer Department
How has or will this be integrated with the HMP and how does this reduce risk?				
This Municipal Stormwater Management Plan (MSWMP) documents the initial strategy for the Town of Harrison (Town) to address stormwater management primarily in new development and redevelopment projects that involve greater than 1 acre of disturbance. The development of this plan is required by N.J.A.C. 7:14A-25 Municipal Stormwater Regulations. This plan contains all of the elements required for completion in 2005 as described in N.J.A.C. 7:8 et seq., Stormwater Management Rules. The plan addresses stormwater quantity, and stormwater quality impacts to projects subject to the requirements of N.J.A.C. 7:8 et seq., by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies.				
<b>Stormwater Pollution Prevention Plan</b>	Yes	Stormwater Pollution Prevention Plan, 2021	Local	Water and Sewer Dept.
How has or will this be integrated with the HMP and how does this reduce risk?				
Works in conjunction with the Municipal Stormwater Management Plan to describe long-term operation and maintenance measures for existing and future stormwater facilities, and the management of runoff from said facilities in to populated areas.				
<b>Open Space Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	Yes	Town of Harrison Master Plan Reexamination Report, 2020	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of the Reexamination Report is to review and evaluate the local Master Plan and Development Regulations on a periodic basis in order to determine the need for updates and revisions. The Town adopted its last Master Plan in 2007 and its most recent Reexamination Report in December of 2017. This Reexamination Report serves as an amendment to the 2017 Master Plan Reexamination Report.				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Transportation Plan</b>	Yes	Town of Harrison Master Plan Reexamination Report, 2020	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of the Reexamination Report is to review and evaluate the local Master Plan and Development Regulations on a periodic basis in order to determine the need for updates and revisions. The Town adopted its last Master Plan in 2007 and its most recent Reexamination Report in December of 2017. This Reexamination Report serves as an amendment to the 2017 Master Plan Reexamination Report.				
<b>Agriculture Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Action/Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	Yes	Harrison Waterfront Redevelopment Plan, 2017; Long Term Control Plan (CSO Planning), 2020	Local	Planning Board; Passaic Valley Sewerage Commission Regional Planning
How has or will this be integrated with the HMP and how does this reduce risk? Harrison Waterfront Redevelopment Plan, 2017: The Waterfront Redevelopment Plan discussed supporting the U.S. Army Corps of Engineer's Passaic River Flood Control Project for the Waterfront Area. The flood control project in Harrison, known as the South 1st Street levee/flood system, is a combination of floodwalls and levees. The system will provide protection to development from tidal floods from the Jackson Street Bridge to the NJ Transit rail bridge just south of the Route 280 bridge. The entire Redevelopment Area will be protected from the 100 Year Flood. The authorized plan proposes a total of 7,450 linear feet of levee and floodwall with eight enclosures. According to the U.S. Army Corps of Engineers, the levees will total 1,750 feet in length with an average height of 6.5 feet and an average base-width of 50 feet. The floodwall portion will be 5,700 feet in length and will have an average height of 6.2 feet. A continuous line of protection would be provided through gated structures at several sites adjacent to the Passaic River and Frank E. Rodgers Boulevard (see the Environmental Constraints-Flooding map). The project design memorandum has been completed, and the project team is working on engineering and design of the project. A Limited Reevaluation Report is being prepared to reaffirm the viability of the project. The NJDEP has provided a letter of support. Current funding is being utilized to update hydrology and hydraulics.  Long Term Control Plan (CSO Planning), 2020: This plan is a way of mitigating the amount of flow that enters into the sewer system by using new and sustainable technologies. Examples of such technology includes a storage system within the pipes to control the overflow, additional holding tanks, and treatment plant expansions. Additional green infrastructure techniques will be considered, such as pervious paving, bioretention basis, and vegetated swales.				
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Town of Harrison Emergency Operations Plan, 2023	Local	Harrison OEM
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Strategic Recovery Planning Report</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				





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

### 6.3.2 Development and Permitting Capability

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

*Table 6-3. Development and Permitting Capability*

	Yes/No	Comment
Do you issue development permits?	Yes	
<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>	N/A	Construction and Engineering
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain is tracked
Do you have a buildable land inventory?	No	-
<ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	N/A	-
Describe the level of buildout in your jurisdiction.	N/A	Almost 1/3 of Harrison is going through redevelopment at this time.

### 6.3.3 Administrative and Technical Capability

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



**Table 6-4. Administrative and Technical Capabilities**

<b>Resources</b>	<b>Available? (Yes/No)</b>	<b>Comment (available staff, responsibilities, support of hazard mitigation)</b>
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	Planning Board
Zoning Board of Adjustment	Yes	Zoning Board of Adjustment and Construction Board of Appeals
Planning Department	Yes	<p>Zoning Office</p> <p>This office is charged with the administration of the town's Land Development Ordinance (zoning ordinance). This office performs the following duties:</p> <ul style="list-style-type: none"> <li>•Perform inspections for the issuance of Certificates of Continued Occupancy in connection with the transfer of title or changes in occupancy.</li> <li>•Review construction permit applications to insure compliance with the zoning regulations of the town.</li> <li>•Issue letters of denial and refer applicants to the Board of Adjustments when an individual's project fails to comply with the Land Development Ordinance.</li> <li>•Issue Zoning permits for site improvement which mayor may not require a construction permit (common examples include, fences, signs, sheds and concrete or asphalt pavement installation on private property).</li> <li>•Issue municipal summons when it is determined that the provisions of the Land Development Ordinance has been violated.</li> </ul>
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Harrison Redevelopment Agency
Public Works/Highway Department	Yes	<p>The Department of Public Works is responsible for maintaining the towns' public infrastructure. These responsibilities include keeping streets clean, snow removal, landscaping, construction, upkeep of all road signs, traffic lights, sewerage, as well as many other responsibilities. The Department also has a maintenance shop where mechanics maintain the town vehicles such as police cars, fire trucks, senior buses, etc.</p> <p>The Water and Sewer Department maintains and constructs or contracts all water and sewer facilities within the town. Responsibilities include operation and maintenance of the town's water lines, pumps, hydrants, etc. Also, pressure washing sewer lines to allow proper flow and vacuuming sewer lift stations to remove grease and debris. The Water and Sewer Department works with builders in the addition of new construction, maintains meters and provides meter readings for billing on a six-month basis.</p>



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Construction/Building/Code Enforcement Department	Yes	<p>Code Enforcement Office</p> <p>This office is charged with the administration and enforcement of the Uniform Construction Code of the State of New Jersey. The staff consists of the construction official, sub code officials and assistants. The following activities are performed by this office:</p> <ul style="list-style-type: none"><li>•Provide construction applications and assistance to the public.</li><li>•Review all permit applications for completeness and verification of prior approvals.</li><li>•Issue construction permits and collect permit fees.</li><li>•Perform all required inspections in connection with permits.</li><li>•Issue Certificates of Approval or Certificates of Occupancy for projects which have been completed.</li><li>•Issue Notices of Violation, Stop Work Orders and Unsafe Structure Notices when it is determined that provisions of the Uniform Construction Code have been violated.</li></ul> <p>Municipal Engineers Office</p> <p>This office is responsible for overseeing the preparation of design documents as well as perform on-site inspections and prepares reports of all municipal capital improvement projects such as:</p> <ul style="list-style-type: none"><li>•Annual Resurfacing projects (milling and paving of streets) covered under NJDOT Local Aid.</li><li>•Improvements to the water distribution system.</li><li>•Improvements to the combined sewer collection system.</li><li>•Streetscape projects.</li><li>•Issue permits for the installation or replacement of concrete curb and sidewalk in the public right of way.</li><li>•Issue permits for new utility connections (water and sewer).</li></ul> <p>The municipal engineer acts as the town representative to ensure compliance with design documents. Other duties include performing on-site inspections of private development projects to ensure that all improvements which will be dedicated back to the town have been constructed in accordance with approved plans and specifications.</p>
Emergency Management/Public Safety Department	Yes	Police Department
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	See DPW and Water and Sewer Department.
Mutual aid agreements	Yes	Fire, Police, OEM
Human Resources Manual - Do any job descriptions specifically include identifying or	Yes	Human Resource



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
implementing mitigation projects or other efforts to reduce natural hazard risk?		
Other	-	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Engineering and Code Enforcement; Planning Board; Heyer, Gruel and Associates
Engineers or professionals trained in building or infrastructure construction practices	Yes	Engineering and Code Enforcement
Planners or engineers with an understanding of natural hazards	Yes	Engineering and Code Enforcement Town Planner
Staff with expertise or training in benefit/cost analysis	Yes	Town Engineer CFO
Professionals trained in conducting damage assessments	No	
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Town Planner – Heyer and Gruel Associates GIS Support from County OEM
Staff that work with socially vulnerable populations or underserved communities	Yes	Mayor's Office
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Town Engineer – Borrie McDonald and Watson
Emergency manager	Yes	OEM/Fire Department
Grant writers	Yes	Office of the Mayor Town Planning CFO
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 6.3.4 Fiscal Capability

Table 6-5 summarizes financial resources available to Harrison.

*Table 6-5. Fiscal Capabilities*

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes – Office of the Mayor
Capital improvement project funding	Yes – Chief Financial Officer



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

### 6.3.5 Education and Outreach Capability

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

**Table 6-6. Education and Outreach Capabilities**

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

### 6.3.6 Community Classifications

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





**Table 6-7. Community Classifications**

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

N/A = Not applicable

— = Unavailable

### 6.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 6-8 summarizes the adaptive capacity for each identified hazard of concern and the Town’s capability to address related actions using the following classifications:

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

**Table 6-8. Adaptive Capacity**

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



## 6.4 National Flood Insurance Program Compliance

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

### 6.4.1 NFIP Statistics

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

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

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

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

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

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

Source: FEMA 2024

### 6.4.2 Flood Vulnerability Summary

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

**Table 6-10. NFIP Summary**

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



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



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

## 6.5 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 6-11 through Table 6-13.

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

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

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



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

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

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

**Table 66-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years**

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

## 6.6 Jurisdictional Risk Assessment

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

### 6.6.1 Hazard Area

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



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

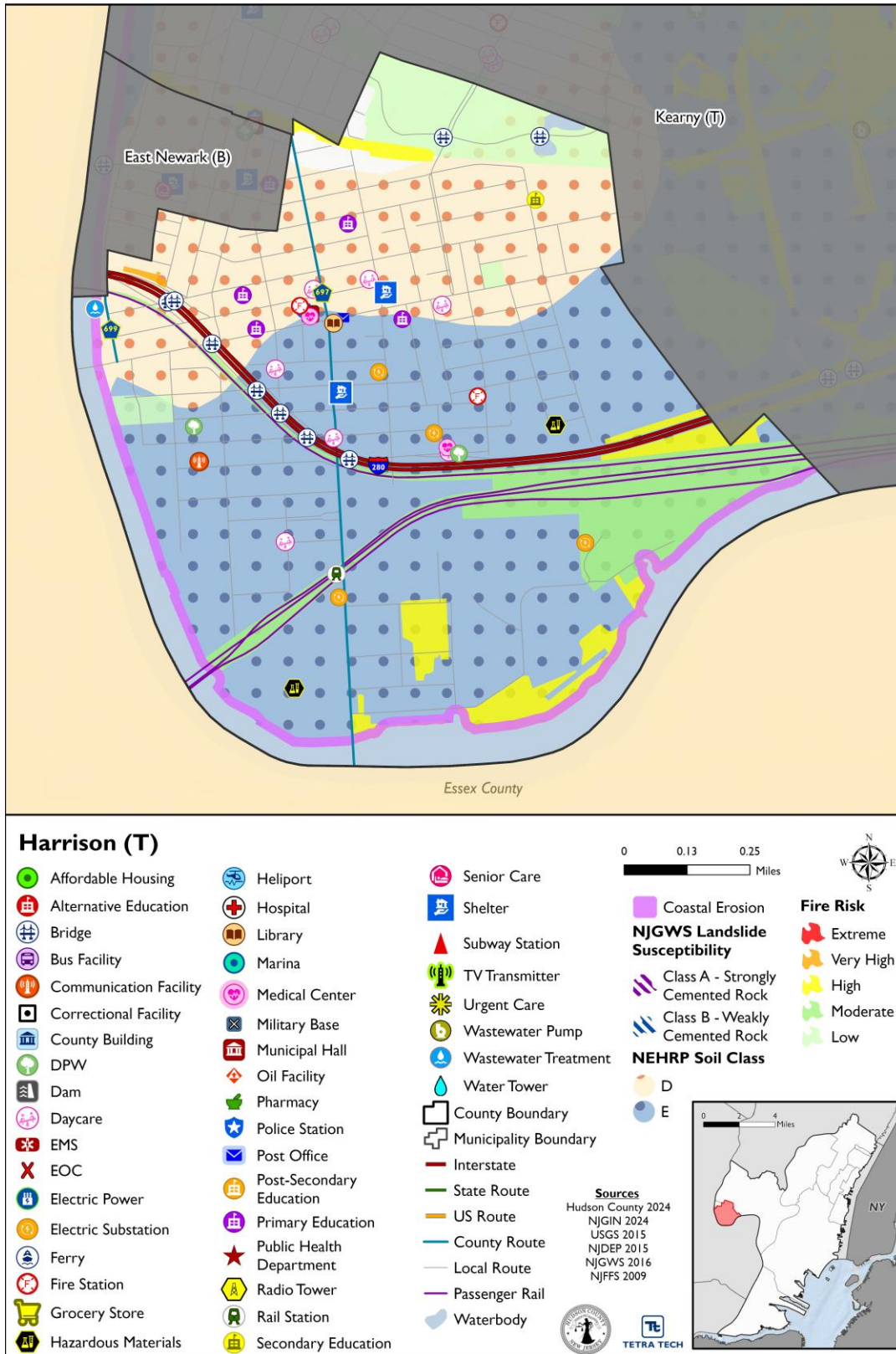






Figure 6-2. Harrison Hazard Area Extent and Location Map 2

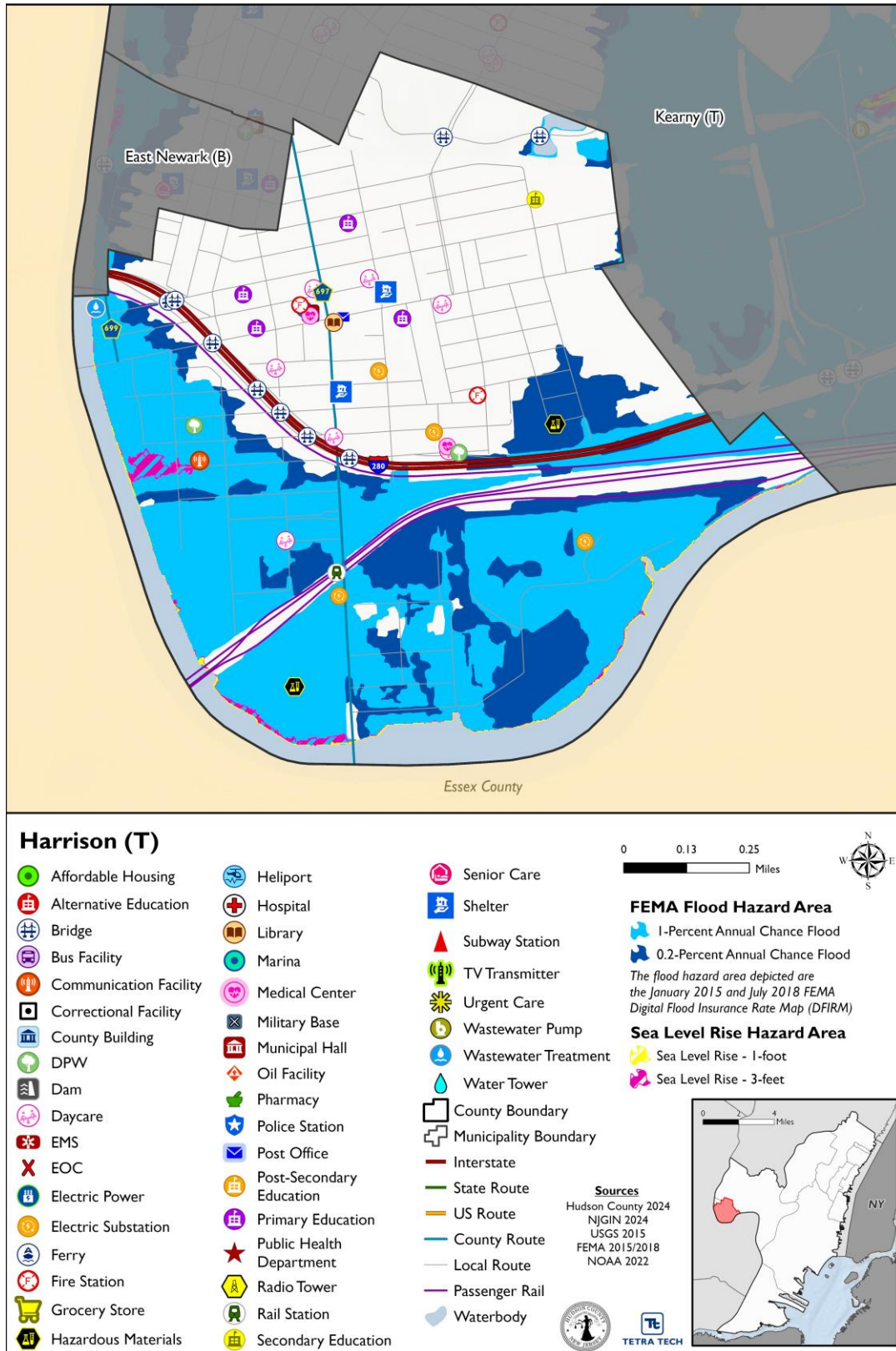
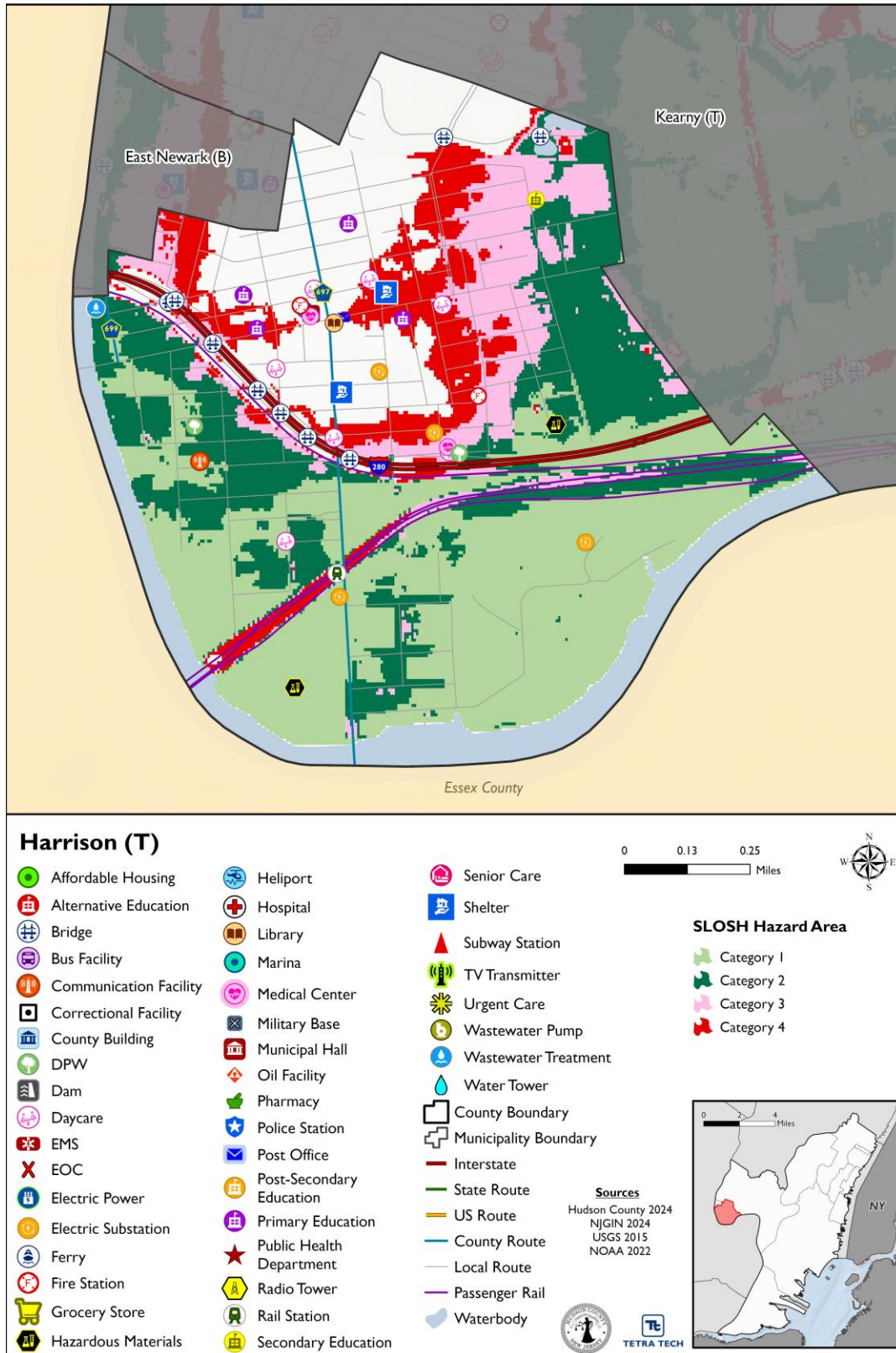




Figure 6-3. Harrison Hazard Area Extent and Location Map 3







## 6.6.2 Hazard Event History

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

**Table 6-14. Hazard Event History in Harrison**

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Harrison
February 25, 2019	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over \$50,000 across the County.	The Town did not experience any noted or documented damages or losses.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	As of March 4, 2023, Hudson County accounts for 219,191 positive cases of COVID-19 in the State of New Jersey, and 2,671 of the reported deaths. A total of 1,565,233 vaccinations have been delivered in the County to both residents and non-residents.	Refer to County Health Dept. for number of positive cases and deaths in Harrison
February 7, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 53 miles per hour. Damages from these strong, damaging winds totaled over \$50,000 across the County.	The Town did not experience any noted or documented damages or losses.
April 13, 2020	Strong Wind, High Wind	No	Widespread damaging wind gusts occurred as storms moved through Hudson County. Wind gusts reached an estimated 58 miles per hour. Damages from these strong, damaging winds totaled over \$50,000 across the County.	The Town did not experience any noted or documented damages or losses.



Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Harrison
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, widespread wind damage, and power outages. There were multiple disruptions to mass transit and road closures due to downed power lines and trees were noted, with numerous water systems having to move to alternate power. One person was injured in Hudson County because of this event.	The Town did not experience any noted or documented damages or losses.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread northeast New Jersey during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8+ inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread flash flooding leading to numerous road closures and water rescues in addition to extensive river flooding. One fatality and seven injuries occurred in Hudson County as a result of this storm.	Force acct labor and equipment 26,872.00  Operations included water rescue, blocking flooded roadways, EMS responses, removal of stranded vehicles, investigations and assistance to the public as needed.
January 28-29, 2022	Winter Storm	No	A Nor'easter brought snow and gusty winds. Wind gusts of 40 mph were reported. Snow and blowing snow impacted Hudson County, with snow totals amounting to 8.5 inches in Hudson County.	The Town did not experience any noted or documented damages or losses.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

### 6.6.3 Hazard Ranking and Vulnerabilities

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



### 6.6.3.1 HAZARD RANKING

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

- None

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

**Table 6-15. Hazard Ranking**

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

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

### 6.6.3.2 CRITICAL FACILITIES

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

**Table 6-16. Critical Facilities Flood Vulnerability**

Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
Campbell Fndy. Co. (Open Storage for Castings)	Hazardous Materials	-	X
Cresskill Academy	Daycare	X	X



Name	Type	Vulnerability	
		1% Annual Chance Event	0.2% Annual Chance Event
Harrison DPW	DPW	X	X
Harrison Town Of	Wastewater Treatment	X	X
PATH Harrison	Electric Substation	X	X
PATH Maintenance	Electric Substation	X	X
Public Service Propane Storage (LNG/Propane)	Hazardous Materials	X	X
Sprint Switching Center	Communication Facility	X	X

Source: Hudson County; HIFLD; NJGIN

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

- None identified

#### 6.6.4 Identified Issues

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

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

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

- The Town does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Without this information, the Town does not have a streamlined way to assess overall trends in damages/impacts to these properties to determine properties of the highest risk of flood damage. It also does not track communications with property owners or the implementation or interest in potential mitigation efforts.
- Although the Harrison Fire Department is well-trained and equipped to respond to flooding events, and the jurisdiction can manage a 6-foot storm surge with only minor to moderate flooding, the Town lacks a boat launch ramp. This absence limits emergency response capabilities on the river, particularly in the event of a Dundee Dam



failure, where swift water access could be essential. The primary obstacle to addressing this vulnerability is insufficient funding for the construction of a boat launch.\*

- Although earthquakes are not a major concern for the Town and past experiences have been limited to minor tremors, the Town is not currently trained or equipped to respond to building collapse or conduct heavy rescue operations. This gap in preparedness poses a risk in the event of a moderate or unexpected seismic event. Key obstacles include limited manpower, lack of training, insufficient equipment, and funding constraints.\*
- Despite the Town's strong flood response capabilities, including certified swift water rescue personnel and additional rescue boats. There is no firehouse or rescue facility located on the side of Town most vulnerable to flooding. This area is further isolated by railroad lines, which can become impassable during flood events, delaying emergency response. Additionally, the absence of a boat launch ramp in this area limits the ability to deploy water rescue operations efficiently.\*
- The Town is adjacent to the Meadowlands, an area with significant brush and vegetation that poses a wildfire risk. A major brush fire could threaten public safety, degrade air quality, and disrupt daily life. However, the Town currently faces key challenges in responding to such events, including limited manpower, insufficient funding, inadequate water supply for suppression, and a lack of specialized equipment.\*
- The Angelo Cifeli Drive Drainage Area currently has a combined sewer system with inadequate drainage capacity which leads to frequent localized flooding events.
- The Bergen Street Drainage Area currently has a combined sewer system with inadequate drainage capacity which leads to frequent localized flooding events.
- There are 3 repetitive loss properties in the Town of Harrison. These 3 properties have been repetitively flooded as documented by paid NFIP claims.
- Harrison DPW Facility is an identified critical facility located in the 1- and 0.2-percent annual chance flood zone.
- The Cresthill Academy Harrison, Harrison PATH Station, Public Service Propane Storage, Harrison PATH Substation, PATH Maintenance, and Sprint Switching Center are identified critical facilities located on the 1% and 0.2% annual chance flood zones.

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

## 6.7 Mitigation Strategy and Prioritization

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

### 6.7.1 Past Mitigation Action Status

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



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### 6.7.2 Additional Mitigation Efforts

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In addition to the mitigation actions completed in Table 6-17, Harrison identified the following mitigation efforts completed since the last HMP:

- None Identified

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

- None Identified



**Table 6-17. Status of Previous Mitigation Actions**

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Harrison-001	Angelo Cifeli Drive Drainage Improvements	Coastal Storm, Flood	Town Engineer, Harrison Redevelopment Agency	<p>Problem: The Angelo Cifeli Drive Drainage Area currently has a combined sewer system with inadequate drainage capacity which leads to frequent localized flooding events.</p> <p>Solution: Separation of combined sewer into separate sanitary and stormwater sewers will help reduce localized flooding by increased drainage capacity</p>	<p>1. In progress</p> <p>2. The project remains in conceptual design with preliminary drainage evaluation for design scope; the Town's limited capacity and capability to take on this project has limited project implementation. The Town is trying to identify additional funding sources for this project for implementation.</p>	<p>1. Include</p> <p>2. Keep as is</p> <p>3. N/A</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-Harrison-002	Bergen Street Drainage	Coastal Storm, Flood	Town Engineer	<p>Problem: The Bergen Street Drainage Area currently has a combined sewer system with inadequate drainage capacity which leads to frequent localized flooding events.</p> <p>Solution: Separation of combined sewer into separate sanitary and stormwater sewers will help reduce localized flooding by increased drainage capacity</p>	<p>1. In progress</p> <p>2. The project remains in conceptual design with preliminary drainage evaluation for design scope; the Town's limited capacity and capability to take on this project has limited project implementation. The Town is trying to identify additional funding sources for this project for implementation.</p>	<p>1. Include</p> <p>2. Keep as is</p> <p>3. N/A</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-Harrison-003	Repetitive Loss Properties	Flood, Severe Weather	Town Engineer/PA, Town Administration	<p>Problem: There are 3 repetitive loss properties in the Town of Harrison. These 3 properties have been repetitively flooded as documented by paid NFIP claims.</p> <p>Solution: Conduct outreach to these and other flood prone property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property owner information and develop a FEMA grant application and BCA to obtain funding to implement mitigation measures.</p>	<p>1. Ongoing capability</p> <p>2. Town will continue to conduct outreach to flood-prone property owners and inform of viable mitigation alternatives; mitigation action has been impacted due to limited capacity and capability in the Town.</p>	<p>1. Include</p> <p>2. Keep as is</p> <p>3. N/A</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-Harrison-004	Flood-Proof Critical Facilities	Flood, Severe Weather	Town Engineer/FPA, Town Administration	<p>Problem: Harrison DPW Facility is an identified critical facility located in the 1% and 0.2% annual chance flood zone.</p> <p>Solution: The Town will conduct a feasibility study to determine if this facility can be mitigated and what alternatives are available. The Town will evaluate, select an action and implement if feasible, to mitigate this facility up to a 0.2% annual chance flood event.</p>	<p>1. In progress</p> <p>2. The Town is currently evaluating funding opportunities and determine scope of work for this feasibility study. Project is still in development.</p>	<p>1. Include</p> <p>2. Keep as is</p> <p>3. N/A</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-Harrison-005	Outreach to Floodprone Critical Facilities	Flood, Severe Weather	Town Engineer/FPA, Town Administration	<p>Problem: The Cresthill Academy Harrison, Harrison PATH Station, Public Service Propane Storage, Harrison PATH Substation, PATH Maintenance, and Sprint Switching Center are identified critical facilities located on the 1% and 0.2% annual chance flood zones.</p> <p>Solution: The FPA will conduct outreach to the private facility managers to alert them of their exposure to flooding and possible mitigation actions.</p>	<p>1. Ongoing capability</p> <p>2. Town will continue to conduct outreach to flood-prone critical facilities and inform of viable mitigation alternatives; mitigation action has been impacted due to limited capacity and capability in the Town.</p>	<p>1. Include</p> <p>2. Keep as is</p> <p>3. N/A</p>



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

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

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

The action worksheets included at the end of this annex list the mitigation actions that Harrison would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Town priorities.

Table 6-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

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



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

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

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

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

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

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

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

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

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

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

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

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



**Table 6-19. Summary of Prioritization of Actions**

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



Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-Harrison-010	Flood-Proof Critical Facilities	1	1	1	1	1	0	0	0	1	1	1	1	1	1	11	High
2025-Harrison-011	Outreach Floodprone Critical Facilities	0	1	1	1	1	1	0	0	1	1	1	1	1	0	10	Medium

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



### Action 2025-Harrison-001. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator
<b>Supporting Agencies:</b>	Town OEM, Town DPW
<b>Hazards of Concern:</b>	Dam and Levee Failure, Drought, Extreme Temperatures, Flood, Geological Hazards, Severe Weather, Severe Winter Weather, Wildfire
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"><li>• Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li><li>• Determine what to use for “market value” and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li><li>• Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure’s pre-damage value.</li><li>• Require permits for floodplain development.</li></ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 <i>Developing a Substantial Damage Management Plan</i> (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>
<b>Estimated Cost:</b>	Low
<b>Potential Funding Sources:</b>	Municipal budget
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan
<b>Goals Met:</b>	3, 6
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.
<b>Mitigation Category</b>	Local Plans and Regulations





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



### ***Action 2025-Harrison-002. Flood Mitigation Interest***

<b>Lead Agency:</b>	Floodplain Administrator	
<b>Supporting Agencies:</b>	Town Administration	
<b>Hazards of Concern:</b>	Flood	
<b>Description of the Problem:</b>	The Town does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Without this information, the Town does not have a streamlined way to assess overall trends in damages/impacts to these properties to determine properties of the highest risk of flood damage. It also does not track communications with property owners or the implementation or interest in potential mitigation efforts.	
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.	
<b>Estimated Cost:</b>	Staff time, Low	
<b>Potential Funding Sources:</b>	Town Budget, FMA, HMGP	
<b>Implementation Timeline:</b>	Within 2 years	
<b>Goals Met:</b>		
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.	
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.	
<b>Impact on Future Development:</b>	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.	
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.	
<b>Impact on Capabilities:</b>	This action will create a new Town capability, while enhancing its current NFIP capabilities.	
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.	
<b>Mitigation Category</b>	Local Plans and Regulations	
<b>CRS Category</b>	Preventative Measures	
<b>Priority</b>	High	
<b>Alternatives</b>	<b>Action</b>	<b>Evaluation</b>
	No action	Current problem remains



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	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application
	Wait for information from the State on flood-damaged properties	May be a delay in notice





### Action 2025-Harrison-003. Boat Launch Ramp

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



### ***Action 2025-Harrison-004. Enhance Earthquake Response Capabilities***

<b>Lead Agency:</b>	Town OEM	
<b>Supporting Agencies:</b>	Town Administration	
<b>Hazards of Concern:</b>	Geological Hazards	
<b>Description of the Problem:</b>	Although earthquakes are not a major concern for the Town and past experiences have been limited to minor tremors, the Town is not currently trained or equipped to respond to building collapse or conduct heavy rescue operations. This gap in preparedness poses a risk in the event of a moderate or unexpected seismic event. Key obstacles include limited manpower, lack of training, insufficient equipment, and funding constraints.	
<b>Description of the Solution:</b>	The Town will implement a phased strategy to build capacity for structural collapse and heavy rescue response. This includes pursuing grant funding for equipment, and enrolling emergency personnel in training. These steps will improve readiness for low-probability but high-impact earthquake scenarios.	
<b>Estimated Cost:</b>	High	
<b>Potential Funding Sources:</b>	Town Budget	
<b>Implementation Timeline:</b>	1-5 years	
<b>Goals Met:</b>	1,2,6,7	
<b>Benefits:</b>	Improving safety, speeding response to building collapses, boosting emergency readiness, and supporting regional disaster efforts.	
<b>Impact on Socially Vulnerable Populations:</b>	Ensures equitable rescue capabilities for residents in older or poorly constructed buildings, which may be more vulnerable to collapse.	
<b>Impact on Future Development:</b>	Encourages adoption of seismic safety standards in new construction.	
<b>Impact on Critical Facilities/Lifelines:</b>	Supports continuity of operations for essential services during seismic events.	
<b>Impact on Capabilities:</b>	Builds specialized rescue capacity within the Town.	
<b>Climate Change Considerations:</b>	While earthquakes are not climate-driven, this action supports multi-hazard preparedness by improving response capabilities that may also be useful in other disasters.	
<b>Mitigation Category</b>	Education and Awareness Programs	
<b>CRS Category</b>	Emergency Services	
<b>Priority</b>	High	
<b>Alternatives</b>	<b>Action</b>	<b>Evaluation</b>
	No Action	-
	Mutual Aid	Delay in response, or lack in specialized capabilities
	Focus solely on prevention and building code enforcement	Doesn't address the current lack of capabilities



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

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



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

<b>Lead Agency:</b>	Harrison Fire Department	
<b>Supporting Agencies:</b>	-	
<b>Hazards of Concern:</b>	Wildfire	
<b>Description of the Problem:</b>	The Town is adjacent to the Meadowlands, an area with significant brush and vegetation that poses a wildfire risk. A major brush fire could threaten public safety, degrade air quality, and disrupt daily life. However, the Town currently faces key challenges in responding to such events, including limited manpower, insufficient funding, inadequate water supply for suppression, and a lack of specialized equipment.	
<b>Description of the Solution:</b>	To address these vulnerabilities, the Town will initiate a wildfire preparedness and suppression enhancement plan. This includes conducting a needs assessment to identify equipment and staffing gaps, exploring water supply solutions (e.g., dry hydrants or water tanks), and pursuing grant funding for brush fire suppression tools and training. The plan will also explore partnerships with regional fire services and environmental agencies to improve coordination and resource sharing.	
<b>Estimated Cost:</b>	Medium	
<b>Potential Funding Sources:</b>	Town Budget	
<b>Implementation Timeline:</b>	1-5 years	
<b>Goals Met:</b>	1,6,7	
<b>Benefits:</b>	This project will enable faster emergency response in high-risk areas, reduce flood-related risks, strengthen community infrastructure, and build public trust in preparedness efforts.	
<b>Impact on Socially Vulnerable Populations:</b>	This initiative will have a positive impact by protecting residents with respiratory conditions or limited mobility, who are especially vulnerable to wildfire smoke and may face challenges during evacuation.	
<b>Impact on Future Development:</b>	The project will encourage fire-resilient land use planning near the Meadowlands and may lead to updates in zoning regulations and building codes to better address wildfire risks in fire-prone areas.	
<b>Impact on Critical Facilities/Lifelines:</b>	It will enhance the protection of critical facilities such as schools, utilities, and transportation routes located near the wildland-urban interface, ensuring they remain operational and accessible during wildfire events.	
<b>Impact on Capabilities:</b>	The action will build local capacity for wildfire response, reduce reliance on mutual aid for initial suppression efforts, and strengthen coordination between local and regional emergency response agencies.	
<b>Climate Change Considerations:</b>	This mitigation effort addresses the growing wildfire risk associated with hotter, drier conditions due to climate change. It also supports long-term adaptation by preparing the Town for changes in fire behavior and frequency.	
<b>Mitigation Category</b>	Structure and Infrastructure Project	
<b>CRS Category</b>	Emergency Services, Property Protection	
<b>Priority</b>	High	
<b>Alternatives</b>	<b>Action</b>	<b>Evaluation</b>
	No Action	-
	Relying Solely on Mutual Aid	May not be timely or sufficient during a fast-moving brush fire.



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	Installing fire breaks or vegetation barriers only	Can help slow fire spread, but not replace the need for trained personnel, equipment, or water supply.
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***Action 2025-Harrison-007.Angelo Cifeli Drive Drainage Improvements***

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



***Action 2025-Harrison-008. Bergen Street Drainage***

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



**Action 2025-Harrison-009. Repetitive Loss Properties**

<b>Lead Agency:</b>	Town Engineer	
<b>Supporting Agencies:</b>	Town Administration, FPA	
<b>Hazards of Concern:</b>	Flood, Severe Weather	
<b>Description of the Problem:</b>	There are 3 repetitive loss properties in the Town of Harrison. These 3 properties have been repetitively flooded as documented by paid NFIP claims.	
<b>Description of the Solution:</b>	Conduct outreach to these and other flood prone property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property owner information and develop a FEMA grant application and BCA to obtain funding to implement mitigation measures.	
<b>Estimated Cost:</b>	High	
<b>Potential Funding Sources:</b>	FEMA HMGP, FMA	
<b>Implementation Timeline:</b>	1-5 years	
<b>Goals Met:</b>	1,2,5	
<b>Benefits:</b>	Helps reduce future flood damage and financial losses by guiding property owners toward effective mitigation solutions.	
<b>Impact on Socially Vulnerable Populations:</b>	Supports residents who may lack resources to recover from repeated flood events by connecting them with funding and technical assistance.	
<b>Impact on Future Development:</b>	Encourages resilient redevelopment and may reduce insurance premiums and regulatory burdens.	
<b>Impact on Critical Facilities/Lifelines:</b>	While not directly targeting critical infrastructure, it reduces strain on emergency services and utilities during flood events.	
<b>Impact on Capabilities:</b>	Builds local capacity to engage with FEMA programs and implement property-level flood mitigation.	
<b>Climate Change Considerations:</b>	Addresses increasing flood risk due to more frequent and intense storms by promoting long-term adaptation.	
<b>Mitigation Category</b>	Education and Awareness Programs, Structure and Infrastructure Project	
<b>CRS Category</b>	Preventative Measures, Property Protection	
<b>Priority</b>	High	
<b>Alternatives</b>	<b>Action</b>	<b>Evaluation</b>
	No Action	-
	Wait for property owners to apply for assistance	Many may lack the knowledge of available programs to assist with the application process



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

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



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

<b>Lead Agency:</b>	Town Engineer	
<b>Supporting Agencies:</b>	Town Administration, FPA	
<b>Hazards of Concern:</b>	Flood, Severe Weather	
<b>Description of the Problem:</b>	The Cresthill Academy Harrison, Harrison PATH Station, Public Service Propane Storage, Harrison PATH Substation, PATH Maintenance, and Sprint Switching Center are identified critical facilities located on the 1% and 0.2% annual chance flood zones.	
<b>Description of the Solution:</b>	The FPA will conduct outreach to the private facility managers to alert them of their exposure to flooding and possible mitigation actions.	
<b>Estimated Cost:</b>	Low	
<b>Potential Funding Sources:</b>	Municipal Budget	
<b>Implementation Timeline:</b>	1-5 years	
<b>Goals Met:</b>	2,5,6	
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Town by including discussions on disaster preparedness and hazard mitigation to facility managers, which will contribute to the resiliency of the Town.	
<b>Impact on Socially Vulnerable Populations:</b>	Not applicable	
<b>Impact on Future Development:</b>	Not applicable	
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities or lifelines would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these facilities becoming more resilient, this action would contribute to their continuity of operations.	
<b>Impact on Capabilities:</b>	This action would build upon the Town's already existing public education and outreach program.	
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate-related disaster events. This action will inform facility managers of how to reduce risk from hazards and how climate change may exacerbate those risks.	
<b>Mitigation Category</b>	Education and Awareness Programs	
<b>CRS Category</b>	Public Information	
<b>Priority</b>	Medium	
<b>Alternatives</b>	<b>Action</b>	<b>Evaluation</b>
	No Action	-
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Town
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving guidance