



SECTION 9. JURISDICTIONAL ANNEXES

9.11 TOWNSHIP OF DELRAN

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

9.11.1 Hazard Mitigation Planning Team

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

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

Table 9.11-1. Hazard Mitigation Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name/Title:	Joseph Cunningham, Deputy Fire Chief/OEM Coordinator	Name/Title:	Joseph Bellina, Township Administrator
Address:	900 Chester Avenue, Delran, NJ 08075	Address:	900 Chester Avenue, Delran, NJ 08075
Phone Number:	(609) 352.4735	Phone Number:	(856) 461-7734 Ext. 113
Email:	joseph.cunningham@delranfire.org	Email:	jbellina@delrantownship.org
NFIP Floodplain Administrator			
Name/Title:	Chris Dochney, Township Engineer		
Address:	1 Market Street, Camden, NJ 08102		
Phone Number:	(732) 410-2651		
Email:	cdochney@cmeusa1.com		
Additional Contributors:			
Name/Title:	William Lunemann, Construction Official		



Method of Participation:	Provided information on new development.
Name/Title:	Bryan Mullen, DPW Superintendent
Method of Participation:	Provided information on previous events.
Name/Title:	Joseph Cunningham, Deputy Fire Chief/OEM Coordinator
Method of Participation:	Provided information on capabilities. Attended the Planning Partnership Risk Assessment Meeting and Mitigation Strategy Workshop.
Name/Title:	Joseph Bellina, Township Administrator
Method of Participation:	Provided information on capabilities.
Name/Title:	Chris Dochney, Township Engineer
Method of Participation:	Provided information on NFIP administration.

9.11.2 Municipal Profile

The Township of Delran is located in northwestern Burlington County and bordered to the north by the Townships of Riverside and Delanco and the State of Pennsylvania, to the south by the Township of Moorestown, to the east by the Township of Willingboro and to the west by the Township of Cinnaminson. Additionally, the Delaware River forms the northern border of the Township. Delran has a total area of 7.2 square miles, of which 6.5 square miles is land and 0.6 miles is water. There are several unincorporated communities found within the Township: Bridgeboro, Cambridge, Chesterville, Fairview, Milltown, and Riverside Park. Route 130 runs through Delran and serves as the Township's principal artery.

The Township is organized under the Optional Municipal Charter Law as a Mayor-Council form of government conducted every two years. The governing body consists of five members with three elected to represent their wards. The terms are four-year staggered terms. The mayor and the remaining two members of the governing body are elected at large for four-year terms. Daily operations are entrusted to the business administrator, appointed by the mayor with advice and consent of council.

According to the U.S. Census, the 2020 population for the Township of Delran was 17,882, a 5.8 percent increase from the 2010 Census. Data from the 2021 American Community Survey 5-Year Population Estimates indicate that 14.4 percent is 65 years of age or older, 5.9 percent of the population is 5 years of age or younger, 4 percent is non-English speaking, 8.7 percent has a disability, and 5 percent is below the poverty level.

The Steering Committee also identified households that are above the Federal Poverty Level but earn less than the basic cost of living as socially vulnerable. For the Township of Delran, 26 percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.11.3 Jurisdictional Capability Assessment and Integration

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

Section 9 | Jurisdictional Annexes

PAGE | 9.11-2



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

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

Planning, Legal, and Regulatory Capability and Integration

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

Table 9.11-2. Planning, Legal, and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
Codes, Ordinances, & Regulations				
Building Code	Yes	Chapter 118 Construction Codes, Uniform	State and Local	Construction Official
<i>How does this reduce risk?</i> This chapter and the Building Code shall be enforced and administered by the Construction Official as appointed by the Township. This code ensures all buildings are in line with the Uniform Construction Code, as adopted by the Township and the State of New Jersey.				
Zoning/Land Use Code	Yes	Chapter 355 Zoning, Chapter 37 Land Use Procedures	Local	Zoning Officer, Zoning Board of Adjustment, Planning Board
<i>How does this reduce risk?</i> The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land.				
Subdivision Ordinance	Yes	Chapter 310 Subdivision of Land	Local	Planning Board
<i>How does this reduce risk?</i> It is declared to be the policy of the Township to consider land subdivisions as part of a plan for the orderly, efficient, and economical development of the Township. Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes,				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
nor for such other uses as may increase danger to health, life, or property, or aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions.				
Site Plan Ordinance	Yes	Chapter 290 Site Plan Review	Local	Planning Board
<i>How does this reduce risk?</i> Approval of a site plan by the Planning Board is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building, structure or lot or portion thereof. The Planning Board sets forth appropriate conditions and safeguards which are in harmony with several identified purposes, including drainage. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.				
Stormwater Management Ordinance	Yes	Chapter 303 Stormwater Management	Local	Police Department, Code Enforcement
<i>How does this reduce risk?</i> The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. An identified objective of this ordinance is to minimize increases in the volumes and rates of stormwater runoff from land development activities in order to reduce flooding and streambank erosion.				
Post-Disaster Recovery/ Reconstruction Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Real Estate Disclosure	No	-	-	-
<i>How does this reduce risk?</i>				
Growth Management	No	-	-	-
<i>How does this reduce risk?</i>				
Environmental Protection Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Flood Damage Prevention Ordinance	Yes	Chapter 167 Flood Damage Prevention	Local	Construction Official, Township Engineer
<i>How does this reduce risk?</i> It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to: <ul style="list-style-type: none"> A. Protect human life and health; B. Minimize expenditure of public money for costly flood control projects; C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; D. Minimize prolonged business interruptions; E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard; F. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas; G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and 				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.				
The ordinance does not follow the model code coordinated ordinance from NJDEP and will require upgrade.				
Wellhead Protection	No	-	-	-
<i>How does this reduce risk?</i>				
Emergency Management Ordinance	Yes	Chapter 20 Administration of Government, Article XXX Emergency Management Services	Local	OEM
<i>How does this reduce risk?</i> This ordinance establishes the identification of the Township's Emergency Management Coordinator, Deputy Coordinator(s), the Emergency Management Service Council, and their duties. Furthermore, it identifies the need to have an Emergency Operations Plan.				
Climate Change Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Other	No	-	-	-
<i>How does this reduce risk?</i>				
Planning Documents				
Comprehensive/Master Plan	Yes	Delran Township Master Plan, 2009	Local	Planning Board
<i>How does this reduce risk?</i> The Township of Delran's Master Plan was last updated in 2009. The Plan incorporates natural hazard risk/mitigation and includes safe growth practices.				
Capital Improvement Plan	Yes	Delran Township Annual Budget	Local	Town Council
<i>How does this reduce risk?</i> Identifies capital projects and equipment purchases, provides a planning schedule and identifies options for financing the plan.				
Disaster Debris Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Floodplain Management or Watershed Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Stormwater Management Plan	Yes	Township of Delran Municipal Stormwater Management Plan, March 2005; Revised July 2007	Local	Public Works, Engineering
<i>How does this reduce risk?</i> The Municipal Stormwater Management Plan documents the Township's strategy for addressing stormwater management and stormwater-related impacts related to land development. This plan addresses the impacts of land development on groundwater recharge, stormwater quality, and stormwater quantity. The impacts are addressed by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one of more acre of land or projects that would result in 0.25 acres or more of additional impervious coverage. 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 provide base flow in receiving water bodies, The plan describes long-term operation and maintenance measures for existing and future stormwater facilities.				
Stormwater Pollution Prevention Plan	Yes	Stormwater Pollution Prevention Plan, May 2023	Local	Public Works, Engineering



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<p><i>How does this reduce risk?</i></p> <p>The Stormwater Pollution Prevention Plan is used to identify all potential pollution sources that could come into contact with stormwater leaving a site. This plan includes the following elements:</p> <ul style="list-style-type: none"> • Site map and description • Descriptions of activities that could cause pollution • Best Management Practices & control measures for preventing pollution • Procedures for conducting inspections and monitoring • Plans for keeping your SWPPP up to date 				
Open Space Plan	Yes	Delran Township Master Plan Open Space Element, 2009	Local	Planning Board
<p><i>How does this reduce risk?</i></p> <p>This element of the Master Plan addresses new open space acquisitions and programs for open space preservation, including farmland preservation. Acquiring land for open space can reduce the Township's vulnerability to certain hazards, such as flooding.</p>				
Urban Water Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Habitat Conservation Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Economic Development Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Shoreline Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Community Wildfire Protection Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Community Forest Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Transportation Plan	Yes	Delran Township Master Plan Circulation Element, 2009	Local	Planning Board
<p><i>How does this reduce risk?</i></p> <p>The Circulation Element of the Master Plan provides a description and analysis of the transportation system that serves the Township, including the street network, streetscape, sidewalks, and pathways.</p>				
Agriculture Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Climate Action/ Resiliency/Sustainability Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Tourism Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Business/ Downtown Development Plan	No	-	-	-
<i>How does this reduce risk?</i>				



	Jurisdiction has this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
Other	No	-	-	-
<i>How does this reduce risk?</i>				
Response/Recovery Planning				
Emergency Operations Plan	Yes	Delran Township Emergency Operations Plan, 2023	Local	OEM
<i>How does this reduce risk?</i> The Emergency Operations Plan aims to assess the Township's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.				
Continuity of Operations Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Strategic Recovery Planning Report	No	-	-	-
<i>How does this reduce risk?</i>				
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	-	-
<i>How does this reduce risk?</i>				
Post-Disaster Recovery Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Public Health Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Other	No	-	-	-
<i>How does this reduce risk?</i>				

Development and Permitting Capability

The table below summarizes the capabilities of the Township of Delran to oversee and track development.

Table 9.11-3. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Yes/No	Comment:
Do you issue development permits? • If yes, what department is responsible?	Yes	Construction Official
If you do not issue development permits, what is your process for tracking new development?	N/A	-
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory?	No	-



Indicate if your jurisdiction implements the following	Yes/No	Comment:
<ul style="list-style-type: none"> If yes, please describe 		
Describe the level of build-out in your jurisdiction.	N/A	There are limited areas available for development in the Township.

Administrative and Technical Capability

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

Table 9.11-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Administrative Capability		
Planning Board	Yes	The Planning Board is authorized to adopt rules and regulations as may be necessary to carry into effect the provisions and purposes of the land use ordinances. In the issuance of subpoenas, administration of oaths and taking of testimony, the provisions of the County and Municipal Investigations Law.
Zoning Board of Adjustment	Yes	The Zoning Board of Adjustment hears and decides appeals where the Zoning Official had denied a permit. The Board may grant variances, subdivision or site plans, or conditional use approvals.
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	The Environmental Commission may prepare and submit an index of natural resources of the Township to the Planning Board and Zoning Board of Adjustments relating to applicable cases in which the environment may be disturbed.
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	The Delran Development Agency promotes and encourages the establishment of desirable industrial and commercial development within the Township. It may from time-to-time cause advertisements or publications to be placed or distributed in accordance with available funds provided by the Council. The Agency functions as a public relations arm of the Township in promoting the benefits of the Township to desirable industrial and commercial development. The Agency meets at least quarterly.
Public Works/Highway Department	Yes	The Public Works Department works year-round to improve quality of life and maintain Delran as a desirable community. The Department consists of 15 employees including a superintendent, one supervisor, one secretarial assistant, two mechanics and ten roadmen. Some of the various responsibilities of Public Works include pothole repair, leaf/branch pickup, snow



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
		removal, clearing and repairing of storm drains, painting crosswalks, maintaining irrigation, maintaining all parks in common areas, and repairing or replacing road signs. Public Works also maintains and operates a compost facility, and a fully equipped automotive garage where repairs to all police vehicles, township heavy equipment and vehicles, and sewer department vehicles occur. The Public Works department also provides a drop off facility for all recycling, paint, electronics, TVs, and motor oil.
Construction/Building/Code Enforcement Department	Yes	The Community Development Office contains the Construction Office and the Zoning Department. These offices issue Construction permits and Zoning permits.
Emergency Management/Public Safety Department	Yes	OEM is responsible for the development, coordination and implementation of plans and projects directed at protecting the lives and property of the residents of this township in the event of an emergency.
Warning Systems / Services (mass notification system, outdoor warning signals, etc.)	Yes	The Township utilize Nixle to send warnings, alerts, and notifications to its residents.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Responsibilities of Public Works include pothole repair, leaf/branch pickup, snow removal, clearing and repairing of storm drains, painting crosswalks, maintaining irrigation, maintaining all parks in common areas, and repairing or replacing road signs.
Mutual aid agreements	Yes	County Mutual Aid agreements for response grids
Human Resources Manual <i>e.g., Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?</i>	Yes	No job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk.
Other: Green Team	Yes	The Delran Green Team is a volunteer committee appointed by the Mayor and Town Council to meet the certification requirements set up by Sustainable Jersey. The Sustainable Jersey program fosters lifestyle changes designed to minimize damage while protecting and maintaining our natural resources. The Green Team will raise awareness and identify actions that can be taken by individuals, businesses, and community groups that that create an atmosphere of well-being and prosperity.
Other: Recreation Advisory Committee	Yes	The Recreation Advisory Committee lies within the Division of Parks and Recreation. The Committee consists of nine members. The Committee's duties include: <ul style="list-style-type: none"> ▪ Approve and authorize all Township civic and recreational events. ▪ Consult with, and report directly to, the Business Administrator and the Mayor.



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
		<ul style="list-style-type: none"> Approve and authorize all events to be held on Township-owned property. Consult with, advise, and report to, Township Council as to civic and recreational events which have been proposed by residents, volunteers, and other interested parties and approved by the Recreation Advisory Committee. Approve the expenditure of Township funds for events and ensure that volunteers and/or others who are involved in the event are properly insured, and any other such administrative duties.
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	No	-
Engineers or professionals trained in building or infrastructure construction practices	No	-
Planners or engineers with an understanding of natural hazards	No	-
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	-
Environmental scientist familiar with natural hazards	No	-
Surveyor(s)	No	-
Emergency Manager	Yes	The Emergency Management Coordinator is responsible for the planning, activating, coordinating and the conduct of disaster control operations within the Township. Whenever, in their opinion, a disaster has occurred or is imminent in any municipality, the Emergency Management Coordinator of the municipality may proclaim a state of local disaster emergency within the Township. The Emergency Management Coordinator, in accordance with regulations promulgated by the State Civilian Defense Director, is be empowered to issue and enforce such orders as may be necessary to implement and carry out disaster control operations and to protect the health, safety and resources of the residents of the Township.
Grant writer(s) <i>Consider the following - Are data and maps from the HMP used to support documentation in grant applications?</i>	Yes	The Township departments use professional staff and hired professionals to write grants.
Resilience Officer	No	-



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

Fiscal Capability

The table below summarizes financial resources available to the Township of Delran.

Table 9.11-5. Fiscal Capabilities

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

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Township of Delran.

Table 9.11-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment:
Public information officer or communications office	Yes	The Delran Township Public Information Officer is the Township Administrator
Personnel skilled or trained in website development	No	-
Hazard mitigation information available on your website	Yes	Hazard mitigation information can be found on various webpages of the Township's website.
Social media for hazard mitigation education and outreach	Yes	The Township has accounts on Facebook, X (previously Twitter), Instagram, and YouTube.
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Planning and Zoning Board
Warning systems for hazard events	Yes	The Township utilize Nixle to send warnings, alerts, and notifications to its residents.
Natural disaster/safety programs in place for schools	No	-



Outreach Resources	Available? (Yes/No)	Comment:
Does the jurisdiction have any public outreach mechanisms / programs in place to inform citizens on natural hazards, risk, and ways to protect themselves during such events? <ul style="list-style-type: none">If yes, please describe.	No	-

Community Classifications

The table below summarizes classifications for community programs available to the Township of Delran.

Table 9.11-7. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	1	Unknown
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	3	2022
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	Bronze	October 5, 2022
Other	No	-	-

Note:

N/A Not applicable
NP Not participating
- Unavailable

Adaptive Capacity

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

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

Table 9.11-8. Adaptive Capacity

Hazard	Adaptive Capacity – Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Strong
Drought	Moderate
Earthquake	Moderate



Hazard	Adaptive Capacity – Strong/Moderate/Weak
Extreme Temperatures	Strong
Flood	Moderate
Severe Weather	Moderate
Severe Winter Weather	Strong
Wildfire	Moderate

9.11.4 National Flood Insurance Program (NFIP) Compliance

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

NFIP Floodplain Administrator (FPA)

Chris Dochney, Township Engineer

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Township of Delran.

Table 9.11-9. NFIP Summary

Active Policies	Total Premium + Policy Fee	Number of Losses	Total Net Payment	Repetitive Loss Properties
78	\$145,439	99	\$631,897.45	12

Source: NFIP 2023

Notes: Data current as of October 2023

RL Repetitive Loss

SRL Severe Repetitive Loss

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

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

Flood Vulnerability Summary

The following table provides a summary of the NFIP program in the Township of Delran.

Table 9.11-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction. <ul style="list-style-type: none">Do you maintain a list of properties that have been damaged by flooding?	As a municipality bound by the Delaware River and the Rancocas Creek, the banks of these tidal waterways as well as Swedes Run, a tributary creek, are prone to flooding. The Township does not currently maintain a list of properties that have been damaged by flooding.
Do you maintain a list of property owners interested in flood mitigation?	The Township does not currently maintain a list of property owners interested in flood mitigation.



NFIP Topic	Comments
<ul style="list-style-type: none"> How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)? 	
Are any RiskMAP projects currently underway in your jurisdiction? <ul style="list-style-type: none"> If so, state what projects are underway. 	A Coastal Surge Study, Case # 18-02-0004S is currently underway for all Coastal NJ and NYC.
How do you make Substantial Damage determinations? <ul style="list-style-type: none"> How many were declared for recent flood events in your jurisdiction? 	<p>Substantial damage is defined in the Township's flood damage prevention ordinance as "damage of any origin sustained by a structure whereby the cost of restoring the structure to its condition before damage would equal or exceed 50% of the market value of the structure before the damage occurred." This would be determined by the Construction Official after property inspection and review of cost estimates for repairs of damaged structures.</p> <p>No Substantial Damage determinations have been made for recent events.</p>
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? <ul style="list-style-type: none"> If there are mitigated properties, how were the projects funded? 	No properties have been recently elevated or acquired by the Township to mitigate flood risk.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? <ul style="list-style-type: none"> If not, state why. 	Yes. Flood maps were updated in 2017 and address current flood risk.
NFIP Compliance	
What local department is responsible for floodplain management?	Chapter 167-13 delegates the responsibility for floodplain administration to the Construction Official and the Township Engineer.
Are any certified floodplain managers on staff in your jurisdiction?	The Township's engineering consultants have certified floodplain managers on staff.
Do you have access to resources to determine possible future flooding conditions from climate change?	NJDEP and Rutgers University provide resources for anticipated storm surge and sea level rise that help to determine possible future flooding conditions based on various scenarios.
Does your floodplain management staff need any assistance or training to support its floodplain management program? <ul style="list-style-type: none"> 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
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	A substantial improvement is defined in the Township's flood damage prevention ordinance as "Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the start of construction of the improvement.



NFIP Topic	Comments
	<p>This term includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:</p> <p>(1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary or safety code specifications which have been identified by the local code enforcement officer and which are the minimum necessary to assure safe living conditions; or</p> <p>(2) Any alteration of an historic structure, provided that the alteration will not preclude the structure's continued designation as an historic structure."</p> <p>Determinations on substantial improvements are made by the Construction Official after reviewing cost estimates for repairs.</p>
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? <ul style="list-style-type: none"> If so, state the violations. 	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	The most recent CAV was June 21, 1990.
What is the local law number or municipal code of your flood damage prevention ordinance? <ul style="list-style-type: none"> Have you adopted NJDEP's Model Code Coordinated Ordinance? What is the date that your flood damage prevention ordinance was last amended? 	<p>The Township's Flood Damage Prevention Ordinance is found at Chapter 167 of the Township Code, most recently amended in December 2017.</p> <p>The Township has not adopted NJDEP's Model Code Coordinated Ordinance.</p>
Does your floodplain management program meet or exceed minimum requirements? <ul style="list-style-type: none"> If exceeds, in what ways? 	The Floodplain program currently meets minimum requirements.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	All applications for development in the Township are reviewed by the Zoning Official, then the Planning Board or Zoning Board where potential encroachments into a flood hazard area or any other regulated environmentally sensitive lands are identified. Township code as well as state regulations limit or completely restrict development in such areas.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No



9.11.5 Growth/Development Trends

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

Table 9.11-11. Number of Building Permits for New Construction

Type of Development	2018		2019		2020		2021		2022	
Number of Building Permits for New Construction Issued Since the previous HMP* (total/within regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	18	0	4	0	18	0	87	0	117	0
Multi-Family	0	0	1	0	0	0	15	0	6	0
Other (commercial, mixed-use, etc.)	3	0	2	0	4	0	3	0	12	0
Total Permits Issued	21	0	7	0	22	0	105	0	135	0

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

* Only location-specific hazard zones or vulnerabilities identified.

Table 9.11-12. Recent and Expected Future Development

Property or Development Name	Type (e.g., Res., Comm.)	# of Units / Structures	Address and Parcel ID	Known Hazard Zone(s)	Description/Status of Development
Recent Major Development from 2019 to Present					
Foxtail Creek	Residential	130 Units	319 Hidden Acres Lane, Moorestown, NJ 08057	None	Townhomes / Single Families
Chester Woods	Apartments	244 Units	1901 Underwood Boulevard Delran, New Jersey 08075	Flood	10 Apartment Buildings
Congressional	Residential	104 Units	4300 Bridgeboro Rd, Moorestown, NJ 08057	Flood	Single Family
Known or Anticipated Major Development in the Next Five (5) Years					
There are no known or anticipated major development in the next five (5) years.					



9.11.6 Jurisdictional Risk Assessment

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

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



Figure 9.11-1. Township of Delran Flood and Sea Level Rise Hazard Area Extent and Location Map

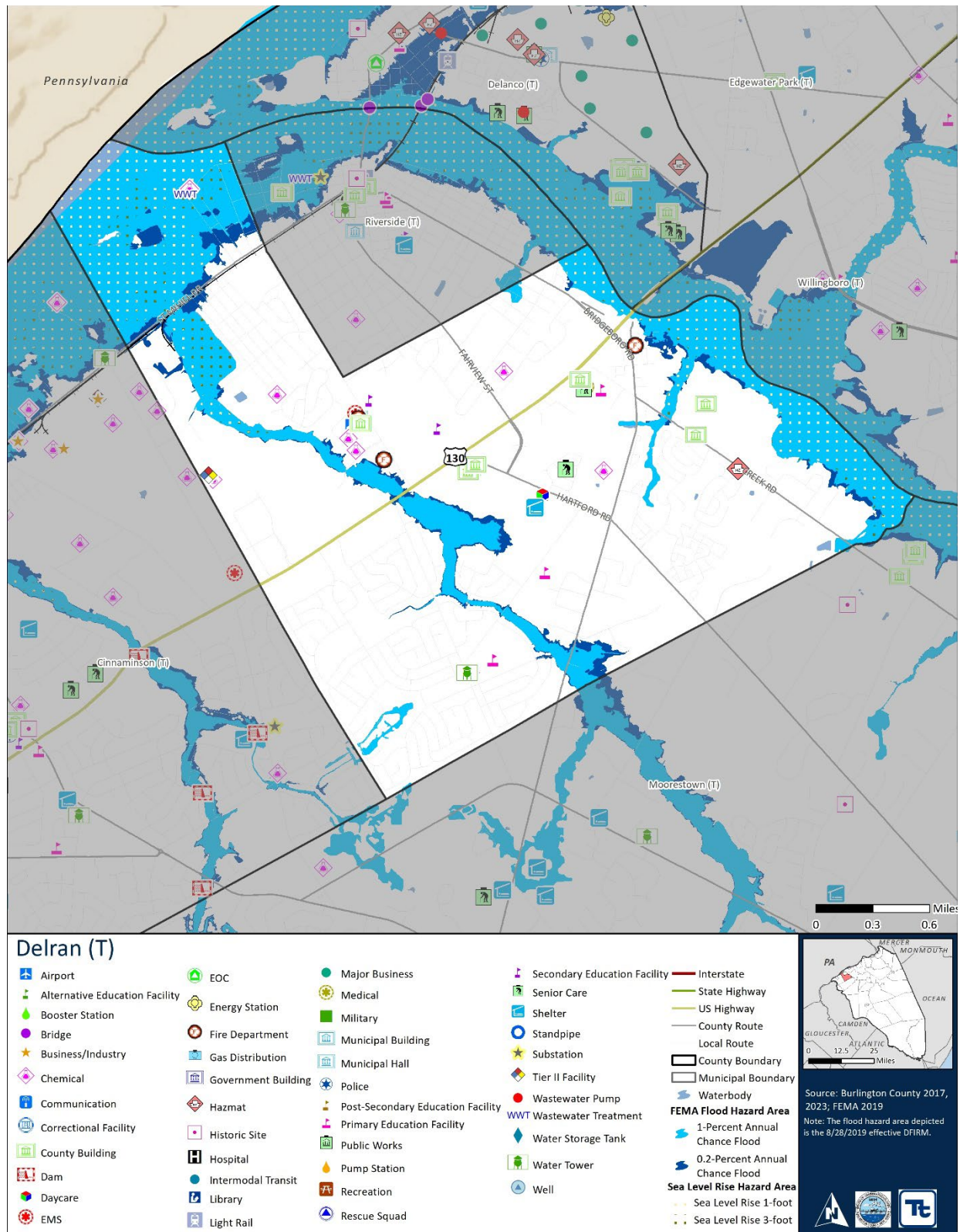
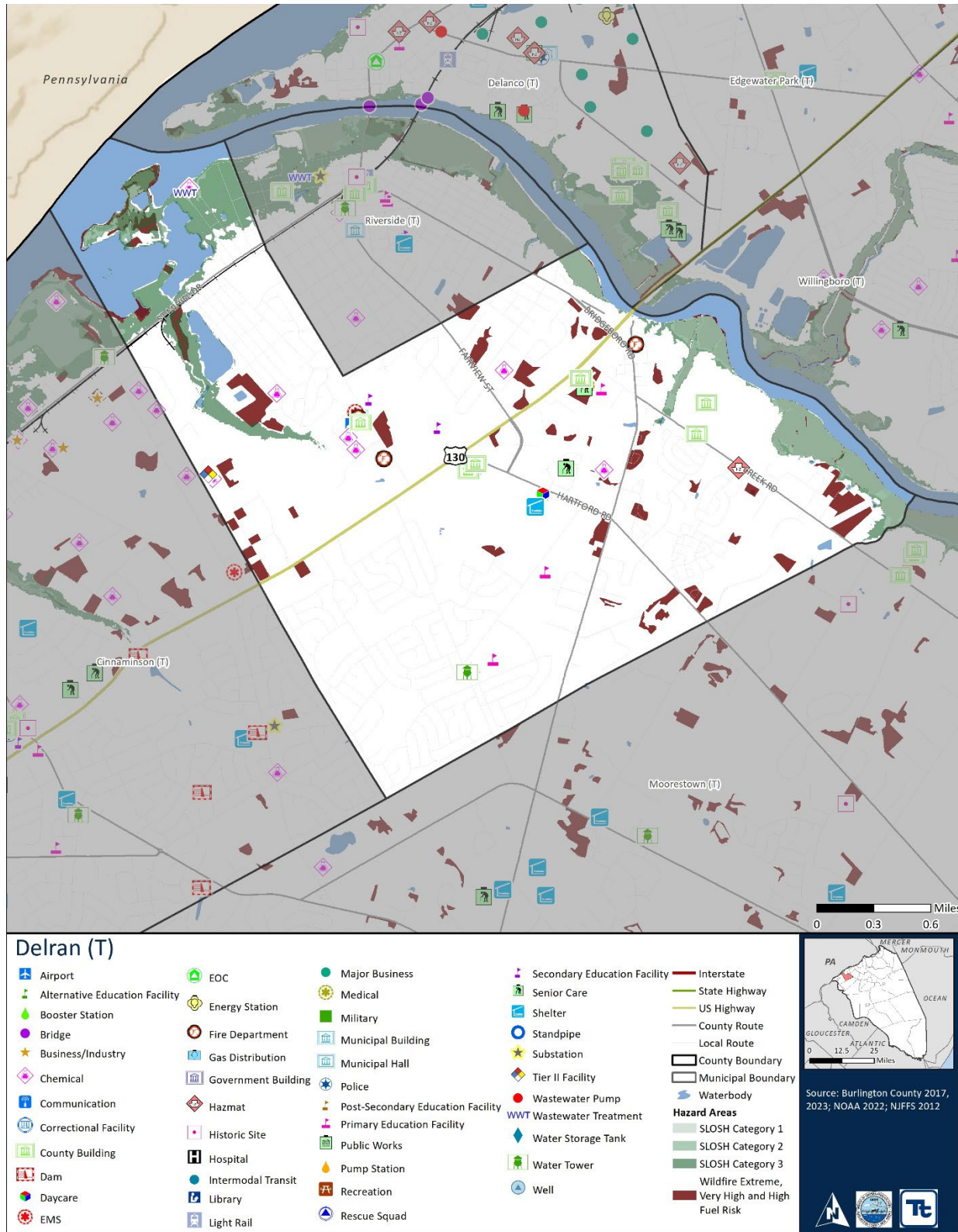




Figure 9.11-2. Township of Delran SLOSH and Wildfire Hazard Area Extent and Location Map





Hazard Event History

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

The Township of Delran's history of federally declared (as presented by FEMA) and significant hazard events [as presented in NOAA-National Centers for Environmental Information (NCEI)] is consistent with that of the County. The table below provides details regarding municipal-specific loss and damages the Township of Delran experienced during hazard events since the last hazard mitigation plan update. Information provided in the table below is based on reference material or local sources.

Table 9.11-13. Hazard Event History Since 2019

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
March 6-7, 2018	Severe Winter Storm (DR4368)	Yes	Banding and thundersnow produced pockets of heavier snow in the western sections of the area, closer to the Delaware River. The snow contained large amounts of liquid, making it heavy and wet. This resulted in downed trees, limbs, and wires, leading to numerous power outages across portions of New Jersey.	Although the County was impacted, the Township did not report significant damages.
September 25, 2018	Flash Flood	No	A quick 1 to 2 inches of rain fell in Burlington County during the late afternoon and early evening of September 25.	Widespread roadway flooding
May 29, 2019	Flash Flood	No	Strong to severe thunderstorms brought heavy rain; totals of 1 to 2 inches fell in a short amount of time, with some locally higher amounts reported.	Widespread roadway flooding
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Burlington County accounted for 115,985 positive cases of COVID-19 in the State of New Jersey, and 1,265 of the reported deaths. A total of 991,269 vaccinations were delivered in the County to both residents and non-residents.	The Township was subject to closures and masking/social distancing requirements.



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Burlington County; some areas of the County reported more than 6 inches over several hours. Burlington County Central Communications fielded over 400 emergency calls and 1,400 non-emergency calls, many for flooded basements and residences.	Although the County was impacted, the Township did not report significant damages.
August 26, 2021	Thunderstorm Wind	No	Storms produced locally damaging winds.	Tree limbs and wires were downed on Moravian Ave and Pancoast Blvd.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall, flash floods, and a tornado (EF-1) that moved through Edgewater Park, Beverly, Burlington Township and Burlington City. Rainfall totals exceed 3 inches in parts of County; 4 water rescues occurred due to flash flooding.	Although the County was impacted, the Township did not report significant damages.
April 1, 2023	Heavy Rain, High Wind, Tornado	No	An EF-1 tornado formed along a line of thunderstorms and made initial touchdown in Cinnaminson. The tornado then crossed into Delran.	The tornado crossed Haines Mill Road in Delran where it grew to its greatest width of approximately 0.3 miles or 600 yards.

Source: FEMA 2023, NOAA NCEI 2023

Notes:

DR Major Disaster Declaration (FEMA)

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

N/A Not applicable

Hazard Ranking and Vulnerabilities

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

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Volume 1, Section 4 (Risk Assessment). The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; and community



capabilities to address the hazard and changing future climate conditions. Mitigation action development uses the inputs from the evaluation to target those hazards with highest level of concern.

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

During the review of the hazard/vulnerability risk ranking, the Township of Delran indicated the following:

- The Township agreed with the calculated hazard rankings.

Table 9.11-14. Hazard Ranking Input

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

Critical Facilities

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

Table 9.11-15. Potential Flood Losses to Critical Facilities and Community Lifelines

Name	Type	Exposure	
		1% Event	0.2% Event
Delran Sewerage Authority – Sewer Plant	Water Systems, Hazardous Materials	Yes	Yes

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

Identified Issues

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

- A recent audit of New Jersey’s model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA’s review,



specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.

- Major disaster events can result in large amounts of debris that overwhelm normal trash collection operations.
- 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.
- Stormwater runoff creates instances of flooding at Riverside Park (Stewart Ave., Alden Ave., and Norman Ave.).
- The Rancocas Creek stream bank along River Drive is low, allowing bank overtopping and erosion.
- The tributary at Laurel Run Creek (Stoneham Dr.) have experienced stream bank erosion.
- Although the Township has flood exposure, the Township does not participate in the Community Rating System (CRS) program. Flood insurance premiums continue to rise.
- Critical facilities in the Township do not have back-up power to maintain continuity of operations.
- The National Weather Service (NWS) provides a certification called StormReady to locales that adopt certain weather preparedness principles and planning. The Township does not participate in NOAA's StormReady program.
- The Delran Sewerage Authority is located in the floodplain. Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery.
- The municipalities along the U.S. Route 130 corridor in Burlington County are impacted primarily by riverine flooding that may be worsened by climate change. These communities along the Delaware River and its tributaries, including the Rancocas, Assiscunk, and Pompeston creeks, are frequently impacted by severe flooding events. A joint regional climate change resilience planning effort is needed to assess future risks and identify local and regional solutions.
- As a municipality bound by the Delaware River and the Rancocas Creek, the banks of these tidal waterways as well as Swedes Run, a tributary creek, are prone to flooding. Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 12 repetitive loss properties, but other properties may be impacted by flooding as well.

9.11.7 Mitigation Strategy and Prioritization

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

Past Mitigation Initiative Status

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



Table 9.11-16. Status of Previous Mitigation Actions

Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
T. Delran-1 (former DR-1)	Purchase properties and convert to open space and/or increase first floor elevations and eliminating basements, where applicable at Riverside Park (River Dr., Stewart Ave., Alden Ave., and Norman Ave.)	Lead: Twp. Engineer Support: Twp. DPW, NJOEM, NJDEP	Complete	No	-	-
T. Delran-2 (former DR-2)	Construct pump stations and rebuild the storm water management system to collect and remove storm water runoff at Riverside Park (River Dr., Stewart Ave., Alden Ave., and Norman Ave.)	Lead: Twp. Engineer Support: Twp. DPW, NJOEM, USACE, NJDEP	River Drive – Complete Stewart Ave – In Progress Alden Ave & Norman Ave – Under Review	Yes	Stormwater runoff creates instances of flooding at Riverside Park (River Dr., Stewart Ave., Alden Ave., and Norman Ave.)	Lead: Twp. Engineer Support: Twp. DPW, NJOEM, USACE, NJDEP
T. Delran-3 (former DR-3)	Restoring and increase height of berm and stabilizing Rancocas Creek steam bank along River Dr.	Lead: Twp. Engineer Support: Twp. DPW, NJOEM, USACE, NJDEP	In Progress Awaiting review from Army Corp of Engineers	Yes	Rancocas Creek stream bank along River Drive is low, allowing bank overtopping and erosion	Lead: Twp. Engineer Support: Twp. DPW, NJOEM, USACE, NJDEP
T. Delran-4 (former DR-5)	Stabilize stream embankments with steel sheeting or other acceptable method to mitigate against continued erosion of stream bank associated with a tributary to Swede's Run (Conrow Rd.) and Laurel Run Creek (Stoneham Dr.)	Lead: Twp. Engineer Support: Twp. DPW	In Progress Conrow Road – Complete Laurel Run Creek – No Progress	Yes	The tributary at Swede's Run (Conrow Rd.) and Laurel Run Creek (Stoneham Dr.) have experienced stream bank erosion.	Lead: Twp. Engineer Support: Twp. DPW
T. Delran-5 (former DR-6)	Evaluate benefits of participating in CRS program	Twp. Committee; Planning	In Progress	Yes	The Township does not participate in the CRS Program.	Twp. Committee; Planning



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
T. Delran-6 (former DR-7)	Conduct and facilitate community and public education and outreach for residents and businesses to promote natural hazard risk reduction to include: <ul style="list-style-type: none"> Disaster preparedness Hazard mitigation 	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	Ongoing Capability	No	-	-
T. Delran-7 (former DR-8)	Improve municipal communications systems to include information sharing with county and surrounding municipalities	Municipality with support from County, NJOEM and FEMA	Ongoing Capability	No	-	-
T. Delran-8 (former DR-9)	Obtain and install backup power sources at critical facilities	Municipality with support from County, NJOEM and FEMA	In Progress	Yes	Critical facilities lack back-up power, compromising continuity of operations.	Municipality with support from County, NJOEM and FEMA
T. Delran-9 (former DR-10)	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	Municipality with support from County, NJOEM, FEMA and surrounding communities	Ongoing Capability	No	-	-
T. Delran-10 (former DR-11)	Continue to support the implementation, monitoring, maintenance, and updating of this Plan through participating in the 5-year Plan Update	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	Ongoing Capability	No	-	-
T. Delran-11 (former DR-12)	Promote the participation of Floodplain Administrator within the planning process and other activities.	Municipality with support from County, NJOEM and FEMA	Ongoing Capability	No	-	-



Project #	Project	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
T. Derlan-12 (former DR-13)	Enhance resilience to severe storms by joining the NOAA "Storm Ready" program.	Municipality with support from County, NJOEM and FEMA	No Progress	Yes	The Township does not participate in NOAA's "Storm Ready" program.	Municipality with support from County, NJOEM and FEMA
T. Derlan-13 (former DR-14)	Provide public education and outreach on proper installation and/or use of backup power	Municipal Clerk	Ongoing Capability	No	-	-
T. Derlan-14 (former DR-15)	Address dangerous trees threatening people and property through proactive tree-trimming (vegetation management) programs in conjunction with property owners and utility companies.	Municipal DPW	Ongoing Capability	No	-	-
T. Derlan-15	Require new developments to provide mitigation to ensure that the cumulative rate of peak runoff is maintained at pre-development levels	Municipality	Ongoing Capability	No	-	-
T. Derlan-16	The Township will continue to promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be: funding, benefits versus cost, and willing participation of property owners	Municipality	Ongoing Capability	No	-	-



Additional Mitigation Efforts

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

- None identified

Proposed Hazard Mitigation Initiatives for the HMP Update

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

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

Table 9.11-17. Analysis of Mitigation Actions by Hazard and Category

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

Note: Mitigation categories are described below the Mitigation Initiatives.



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



Action 2024-Delran-01. Code Coordinated Ordinance

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



Climate Change Considerations:	The updated ordinance includes the State’s higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.	
Mitigation Category:	Local Plans and Regulations	
CRS Category:	Preventative	
Priority:	High	
Alternatives:	Action	Evaluation
	No Action	Current problem exists
	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage



Action 2024-Delran-02. Disaster Debris Management Plan

Lead Agency:	Public Works	
Supporting Agencies:	OEM	
Hazard(s) of Concern:	Dam Failure, Drought, Earthquake, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Major disaster events can result in large amounts of debris that overwhelm normal trash collection operations. Depending on the amount generated, temporary staging areas for debris collection may be needed. The municipality does not have a disaster debris management plan in place. During a disaster that results in debris, a plan with outlined responsibilities is needed to adequately address post-disaster cleanup operations.	
Description of the Solution:	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.	
Estimated Cost:	Staff time	
Potential Funding Sources:	Municipal budget	
Implementation Timeline:	Within 5 years	
Goals:	5, 6	
Benefits:	The action will result in increased quicker and more efficient cleanup after disaster events.	
Impact on Socially Vulnerable Populations:	N/A	
Impact on Future Development:	N/A	
Impact on Critical Facilities/Lifelines:	N/A	
Impact on Capabilities:	The action will result in increased post disaster capabilities.	
Climate Change Considerations:	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.	
Mitigation Category:	Local Plans and Regulations	
CRS Category:	Emergency Services	
Priority:	Medium	
Alternatives:	Action	Evaluation
	No Action	-
	Rely on federal cleanup	These services may or may not be available



	Rely on state cleanup	These services may or may not be available
--	-----------------------	--



Action 2024-Delran-03. Substantial Damage Management Plan

Lead Agency:	Floodplain Administrator
Supporting Agencies:	Public Works, OEM, Construction Department
Hazard(s) of Concern:	Dam Failure, Drought, Earthquake, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	<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">• 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. <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>
Description of the Solution:	<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> (https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>
Estimated Cost:	Low
Potential Funding Sources:	Municipal budget
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan
Goals Met:	1, 2, 5, 7
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.



Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.	
Impact on Capabilities:	This action improves disaster recovery capabilities.	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.	
Mitigation Category:	Local Plans and Regulations	
CRS Category:	Emergency Services, Preventative	
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 2024-Delran-04. Pump Station Construction

Lead Agency:	Township Engineer	
Supporting Agencies:	Township Public Works, NJOEM, USACE, NJDEP	
Hazard(s) of Concern:	Flood, Severe Weather	
Description of the Problem:	Stormwater runoff creates instances of flooding at Riverside Park (Stewart Ave., Alden Ave., and Norman Ave.).	
Description of the Solution:	The Township will construct pump stations and rebuild the storm water management system to collect and remove storm water runoff at Riverside Park (Stewart Ave., Alden Ave., and Norman Ave.).	
Estimated Cost:	High	
Potential Funding Sources:	FEMA BRIC, HMGP, Municipal Budget, USACE CAP	
Implementation Timeline:	4 years	
Goals Met:	2	
Benefits:	This action would reduce the flooding impacts felt by the Township from the Rancocas Creek at Riverside Park (Stewart Ave., Alden Ave., and Norman Ave.).	
Impact on Socially Vulnerable Populations:	This action will assist socially vulnerable populations whose properties are impacted by flooding from the Rancocas Creek at Riverside Park (Stewart Ave., Alden Ave., and Norman Ave.). Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.	
Impact on Future Development:	N/A	
Impact on Critical Facilities/Lifelines:	This action would assist in the reduction of roadway flooding from the Rancocas Creek at Riverside Park (Stewart Ave., Alden Ave., and Norman Ave.), permitting first responders to traverse the roadways safely.	
Impact on Capabilities:	N/A	
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects	
Priority	Medium	
Alternatives:	Action	Evaluation
	No action	Current problem continues
	Replace sections of the park with drainage basins	Lose park area, may not be efficient
	Install green infrastructure to help in collecting stormwater runoff	May not have sufficient space for adequate effectiveness



Action 2024-Delran-05. Rancocas Creek Stream Bank Erosion

Lead Agency:	Township Engineer	
Supporting Agencies:	Township Public Works, NJOEM, USACE, NJDEP	
Hazard(s) of Concern:	Flood	
Description of the Problem:	The Rancocas Creek stream bank along River Drive is low, allowing bank overtopping and erosion.	
Description of the Solution:	The stream bank of the Rancocas Creek at River Drive will be restored and elevated to prevent overtopping and continued erosion.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA BRIC, HMGP, Municipal Budget, USACE CAP, NJDEP Coastal Engineering Shore Protection Program	
Implementation Timeline:	4 years	
Goals Met:	2	
Benefits:	This action will prevent overtopping and erosion at River Drive along the Rancocas Creek, protecting property from further impact.	
Impact on Socially Vulnerable Populations:	This action will assist socially vulnerable populations whose properties border the Rancocas Creek and may be impacted by flooding and erosion from the bank overtopping.	
Impact on Future Development:	N/A	
Impact on Critical Facilities/Lifelines:	N/A	
Impact on Capabilities:	N/A	
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. These periods of intense rain may lead to more instances of flooding and increased erosion.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects	
Priority	Medium	
Alternatives:	Action	Evaluation
	No action	Current problem continues
	Remove properties impacted by stream overflow	Costly
	Construct floodwall to prevent flooding	Cost prohibitive and could ruin natural floodplain function



Action 2024-Delran-06. Laurel Run Creek Stream Bank Erosion

Lead Agency:	Township Engineer	
Supporting Agencies:	Township Public Works	
Hazard(s) of Concern:	Flood, Severe Storm	
Description of the Problem:	The tributary at Laurel Run Creek (Stoneham Dr.) have experienced stream bank erosion.	
Description of the Solution:	Stabilize stream embankments with steel sheeting or other acceptable method to mitigate against continued erosion of stream bank associated with a tributary to Laurel Run Creek (Stoneham Dr.).	
Estimated Cost:	High	
Potential Funding Sources:	FEMA BRIC, HMGP, Municipal Budget	
Implementation Timeline:	3 years	
Goals Met:	2	
Benefits:	This action will prevent overtopping and erosion at Stoneham Drive along the Laurel Creek, protecting property from further impact.	
Impact on Socially Vulnerable Populations:	This action will assist socially vulnerable populations whose properties border the Laurel Run Creek and may be impacted by flooding and erosion from the bank overtopping.	
Impact on Future Development:	N/A	
Impact on Critical Facilities/Lifelines:	N/A	
Impact on Capabilities:	N/A	
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. These periods of intense rain may lead to more instances of flooding and increased erosion.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects	
Priority	Medium	
Alternatives:	Action	Evaluation
	No action	Current problem continues
	Remove properties impacted by stream overflow	Costly
	Construct floodwall to prevent flooding	Cost prohibitive and could ruin natural floodplain function



Action 2024-Delran-07. CRS Program Participation

Lead Agency:	Floodplain Administrator	
Supporting Agencies:	Twp. Committee, Planning, OEM	
Hazard(s) of Concern:	Flood	
Description of the Problem:	Although the Township has flood exposure, the Township does not participate in the Community Rating System (CRS) program. Flood insurance premiums continue to rise.	
Description of the Solution:	The Township will evaluate the benefits and costs of participating in CRS program. If feasible, the Township will join the program and begin implementing standards that exceed NFIP requirements.	
Estimated Cost:	Low	
Potential Funding Sources:	Municipal Budget	
Implementation Timeline:	2 years	
Goals Met:	2, 5	
Benefits:	The participation in the Community Rating System (CRS) benefits communities by offering discounted rates for flood insurance premiums, which addresses the three goals of the program: reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management.	
Impact on Socially Vulnerable Populations:	The participation in the Community Rating System (CRS) benefits communities by offering discounted rates for flood insurance premiums, which may be more affordable for some socially vulnerable populations.	
Impact on Future Development:	Future development would need to adhere to any increased standards established as part of joining the CRS program such as increased freeboard and elevation certificate requirements.	
Impact on Critical Facilities/Lifelines:	N/A	
Impact on Capabilities:	This would be a new capability for the Township.	
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. As sea level rises due to climate change, the area of the flood hazard may expand.	
Mitigation Category	Education and Awareness Programs	
CRS Category	Public Information	
Priority	Medium	
Alternatives:	Action	Evaluation
	No action	The Township does not participate in the CRS Program



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



Action 2024-Delran-08. Generators at Critical Facilities

Lead Agency:	Engineering	
Supporting Agencies:	Township OEM, County OEM, NJOEM, and FEMA	
Hazard(s) of Concern:	Dam Failure, Disease Outbreak, Drought, Earthquake, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Critical facilities in the Township do not have back-up power to maintain continuity of operations.	
Description of the Solution:	The Township will obtain and install backup power sources (generators) at critical facilities to ensure continuation of critical functions during power outages.	
Estimated Cost:	High	
Potential Funding Sources:	FEMA BRIC, HMGP, Municipal Budget	
Implementation Timeline:	5 years	
Goals Met:	1, 6, 7	
Benefits:	The Township will be able to maintain continuity of operations.	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations reliant on critical services from lifelines will benefit from the continuity of operations established by backup power.	
Impact on Future Development:	N/A	
Impact on Critical Facilities/Lifelines:	Locations identified in this action are critical facilities. These facilities may need an emergency generator to provide continued assistance to vulnerable populations and/or provide a means for continuity of operations.	
Impact on Capabilities:	The action would maintains the capabilities of supported critical facilities.	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides a safe location with air conditioning and heat for residents and visitors to locate to during hazard events and/or provide a means for continuity of operations.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Emergency Services	
Priority	Medium	
Alternatives:	Action	Evaluation
	No Action	Current problem continues
	Solar Panels	Weather dependent and costly
	Mobile Generator	May lack sufficient power supply or run time



Action 2024-Delran-09. StormReady Program

Lead Agency:	Township OEM
Supporting Agencies:	County OEM, NJOEM, and FEMA
Hazard(s) of Concern:	Severe Weather, Severe Winter Weather, Flood, Extreme Temperatures
Description of the Problem:	The National Weather Service (NWS) provides a certification called StormReady to locales that adopt certain weather preparedness principles and planning. The Township does not participate in NOAA's StormReady program.
Description of the Solution:	The Township will coordinate with the local NWS office to complete all necessary requirements to become a StormReady community.
Estimated Cost:	Low
Potential Funding Sources:	Municipal Budget
Implementation Timeline:	3 years
Goals Met:	1, 2, 3
Benefits:	StormReady is a nationwide program that helps communities better protect their citizens during severe weather. The program encourages communities to take a proactive approach to improving local hazardous weather operations. StormReady provides emergency managers with clear-cut guidelines on how to improve their hazardous weather operations.
Impact on Socially Vulnerable Populations:	To become a participant in the StormReady program, a community must have more than one way to receive severe weather warnings and forecasts and to alert the public. Increasing methods of communication to socially vulnerable populations can assist in the safety and security of residents.
Impact on Future Development:	N/A
Impact on Critical Facilities/Lifelines:	N/A
Impact on Capabilities:	Participating in the StormReady program will increase the capabilities of the Township. To become a participant in the program, a community must establish a 24-hour warning point and emergency operations center, have more than one way to receive severe weather warnings and forecasts and to alert the public, create a system that monitors weather conditions locally, promote the importance of public readiness through community seminars, and develop a formal hazardous weather plan, which includes training severe weather spotters and holding emergency exercises.
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events.
Mitigation Category	Education and Awareness Programs
CRS Category	Public Information
Priority	Medium



Alternatives:	Action	Evaluation
	No Action	The Township does not participate in the Storm Ready Program
	Complete half of the program requirements	The Township would not be eligible to participate in the Storm Ready Program
	Participate in the program, but do not utilize resources	The Township would miss opportunities to strengthen communication and safety skills



Action 2024-Delran-10. Critical Facility in the Floodplain

Lead Agency:	Township Administration	
Supporting Agencies:	OEM, facility manager	
Hazard(s) of Concern:	Flood	
Description of the Problem:	The Delran Sewerage Authority is located in the floodplain. Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery.	
Description of the Solution:	<p>The Township will coordinate with the facility manager at the Delran Sewerage Authority in the Township to support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or relocation to protect structures from future damage.</p> <p>Phase 1: Identify most cost-effective mitigation option</p> <p>Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.</p>	
Estimated Cost:	High	
Potential Funding Sources:	FEMA BRIC, HMGP, Municipal Budget	
Implementation Timeline:	5 years	
Goals Met:	2	
Benefits:	This action will reduce critical facility and community lifeline vulnerability to the flood hazard and remove or reduce safety risks for first responders.	
Impact on Socially Vulnerable Populations:	Retrofitting or relocating the facility will benefit socially vulnerable populations that rely on the facility.	
Impact on Future Development:	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.	
Impact on Critical Facilities/Lifelines:	This action will result in better flood protection for a critical facility.	
Impact on Capabilities:	N/A	
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. As sea level rises due to climate change, the area of the flood hazard may expand.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Structural Flood Control Projects	
Priority	Medium	
Alternatives:	Action	Evaluation
	No action	Current problem continues



	Floodproof existing structure	May not necessarily reduce risk
	Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function



Action 2024- Delran-11. Burlington County – U.S. Route 130 Corridor Climate Change-Related Hazard Vulnerability Assessment

Lead Agency:	Township Administration
Supporting Agencies:	Burlington County Department of Public Works, NJDEP Office of Climate Resilience Resilient NJ: Municipal Assistance Program, Beverly City, Burlington City, Burlington Township, Cinnaminson Township, Edgewater Park Township, Florence Township, Palmyra Borough, Riverton Borough, Riverside Township, and Willingboro Township.
Hazard(s) of Concern:	Drought, Extreme Temperature, Flood, Severe Weather, Severe Winter Weather, Wildfire
Description of the Problem:	The municipalities along the U.S. Route 130 corridor in Burlington County are impacted primarily by riverine flooding that may be worsened by climate change. These communities along the Delaware River and its tributaries, including the Rancocas, Assiscunk, and Pompeston creeks, are frequently impacted by severe flooding events. A joint regional climate change resilience planning effort is needed to assess future risks and identify local and regional solutions.
Description of the Solution:	<p>The NJ DEP will engage consultants on behalf of the communities to complete this work. The resilience planning process to develop the Climate Change-Related Hazard Vulnerability Assessment (CCRHVA) involves the following:</p> <ul style="list-style-type: none">• Community engagement and outreach to plan for each municipality;• Examination of current local conditions through research and review of data, reports, plans, and other information that have shaped the community's and the region's character;• Assessments to understand the current and future local impacts of climate change; and• Identification and prioritization of appropriate strategies, design standards and other resilience actions that address and/or minimize the impacts of climate change and other natural hazards assessed in the CCRHVA. <p>In response to the vulnerabilities identified in the vulnerability assessment, potential strategies, regulations, and design standards that could be implemented to reduce, mitigate, or avoid risks, as well as increase resilience will be identified. Considerations include land use strategies, design standards/ building codes, zoning ordinances, and programming. Resilience actions appropriate for the county or other state/regional entities, and those where cooperation/ coordination by multiple municipalities, if necessary, will be identified in addition to municipal-specific actions. For each action, responsible parties, estimated rough costs for implementation (if applicable), possible sources of funding, and the estimated timelines will be identified.</p>
Estimated Cost:	\$760,000 for full region
Potential Funding Sources:	NOAA through the New Jersey Coastal Management Program
Implementation Timeline:	Within 3 years
Goals Met:	1, 2, 3, 4, 5, 6, 7
Benefits:	<p>This effort will result in the following benefits:</p> <ul style="list-style-type: none">• Current and future threats to, and vulnerabilities of, each municipality associated with climate-related hazards, including, but not limited to, increased temperatures, drought, all types of flooding, hurricanes, increased risk of fire, and sea-level rise will be analyzed.



	<ul style="list-style-type: none"> Assess the threats to, and vulnerabilities of, socially vulnerable populations will be assessed and actions to address the impacts will be identified. A buildout analysis of future residential, commercial, industrial, and other development in each municipality, and an assessment of the threats and vulnerabilities to that development will be developed Critical facilities, utilities, roadways, and infrastructure necessary for evacuation purposes and sustaining quality of life during a natural disaster and immediately thereafter will be identified. Potential impacts of natural hazards on the relevant elements of each individual master plan will be analyzed. Considerations include community facilities plans, open space, housing, economic development, circulation/ transportation, sustainability, health, capital improvements, redevelopment, etc. Potential strategies and design standards that could be implemented to reduce or avoid risks associated with natural hazards will be identified. 	
Impact on Socially Vulnerable Populations:	This effort will assess the potential risks and impacts of hazards on socially vulnerable and underserved populations and describe how they may exacerbate disadvantages. Actions will be developed to reduce risks for these populations.	
Impact on Future Development:	The assessments will include a geographically based build-out analysis of current and future residential, commercial, industrial, and other development in each municipality on developed, underdeveloped, and undeveloped land, to inform an assessment of the exposure and vulnerabilities of those land uses in relation to the hazards identified.	
Impact on Critical Facilities/Lifelines:	The assessments will identify and assess the exposure and vulnerability of critical facilities, systems, utilities, roadways, and other infrastructure necessary for evacuation purposes and sustaining quality of life during and immediately after a natural disaster. The assessments will also identify and assess the exposure and vulnerability of community assets important to community character, regional significance, and sustaining daily quality of life (e.g. neighborhood centers, gas stations, and grocery stores). This includes but is not limited to natural resources and systems, economic assets, social, cultural, government, or professional services, and other community priorities be assessed. Access to important and critical assets and services located outside of the municipalities should also be evaluated as well as community liabilities that have the potential to cause harm, such as contaminated sites.	
Impact on Capabilities:	This effort will allow for incorporation of climate resilience into municipal master plans to enhance planning and regulatory capabilities.	
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of climate related events. This project will include a comprehensive assessment of the vulnerability to current and future climate change-related hazards of the entire multi-municipal region as well as for each of the individual municipalities. The vulnerability assessment will consider all climate change impacts through 2100.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Preventative Measures	
Priority	High	
Alternatives:	Action	Evaluation
	No Action	-
	Elect not to participate in program but develop municipal specific CCRHVA	Costly and lacking regional coordination



	Elect not to participate in program but develop municipal specific assessment without climate change impacts	Costly, lacking regional coordination, and not meeting state requirements
--	--	---



Action 2024-Delran-12. Repetitive Loss Properties

Lead Agency:	Floodplain Administrator
Supporting Agencies:	OEM, NJOEM
Hazard(s) of Concern:	Flood, Severe Weather
Description of the Problem:	As a municipality bound by the Delaware River and the Rancocas Creek, the banks of these tidal waterways as well as Swedes Run, a tributary creek, are prone to flooding. Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 12 repetitive loss properties, but other properties may be impacted by flooding as well.
Description of the Solution:	Conduct outreach to 20 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information, and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).
Estimated Cost:	TBD
Potential Funding Sources:	BRIC, FMA, HMGP, match from property owners
Implementation Timeline:	Within 5 Years
Goals Met:	1, 2, 6
Benefits:	Eliminates flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.
Impact on Socially Vulnerable Populations:	Removing homes from the floodplain immediately removes the risk to life and property. Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.
Impact on Future Development:	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.
Impact on Critical Facilities/Lifelines:	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.
Impact on Capabilities:	Removing the risk from the immediate floodplain via acquisition of properties will free up resources for search and rescue and other emergency operations as needed.
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of severe rainfall, flash flooding, riverine flooding, and coastal flooding from sea level rise and storm surge events. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life



	as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternatives:	Action	Evaluation
	No action	Current problem continues
	Levee around floodplain	Costly, not enough room
	Deployable flood barriers	Requires deployment. Residents may not have adequate time to deploy, especially those who are elderly or disabled.



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



Table 9.11-18. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Community Objectives	Total	High / Medium / Low
2024-Delran-01	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2024-Delran-02	Disaster Debris Management Plan	0	0	1	1	1	1	0	0	1	1	1	1	0	1	9	Medium
2024-Delran-03	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2024-Delran-04	Pump Station Construction	0	1	1	1	1	0	1	0	1	0	1	1	0	1	9	Medium
2024-Delran-05	Rancocas Creek Stream Bank Erosion	0	1	1	1	1	0	1	0	1	0	1	1	0	0	8	Medium
2024-Delran-06	Laurel Run Creek Stream Bank Erosion	0	1	1	1	1	0	1	0	1	0	1	1	0	0	8	Medium
2024-Delran-07	CRS Program Participation	0	1	1	1	1	1	0	0	1	0	1	1	0	1	9	Medium
2024-Delran-08	Generators at Critical Facilities	1	1	1	1	1	0	0	1	1	1	0	1	1	0	10	Medium
2024-Delran-09	StormReady Program	1	1	1	1	1	1	0	0	1	0	1	1	0	1	10	Medium
2024-Delran-10	Critical Facility in the Floodplain	0	1	1	1	1	0	0	0	1	0	1	1	1	0	8	Medium
2024-Delran-11	Burlington County – U.S. Route 130 Corridor Climate Change-Related Hazard Vulnerability Assessment	1	1	1	1	1	1	1	1	1	1	1	1	1	0	13	High
2024-Delran-12	Repetitive Loss Properties	1	1	1	1	1	1	0	0	1	1	1	1	0	1	11	High

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