5.0 CAPABILITY ASSESSMENT

Image Source: Monmouth Arts
Creative Expressions Arts and Wellness Program

5.0 CAPABILITY ASSESSMENT

5.1 OVERVIEW

A Capability Assessment evaluates local regulatory, administrative, technical, and fiscal capabilities to accomplish hazard mitigation actions through existing mechanisms. This assessment helps Monmouth County and its municipalities identify strengths that could be used to reduce losses and risks in the community. The capability assessment also provides an inventory of the most critical local planning tools available within each municipality and a summary of the fiscal and technical capabilities available through programs and organizations outside of the County. It also identifies emergency management capabilities and the processes used to comply with the NFIP.

To fully understand each jurisdiction's existing authorities, policies, programs, and resources, the Project Team distributed a capability assessment survey to Monmouth County and its 53 municipalities prior to each municipal meeting. During the meetings, the Project Team and local officials discussed new capabilities since the acceptance of the previous Monmouth County HMP and updated the worksheet based on feedback. Where there were gaps in local knowledge or where extra information was available through research, this information was added to complement local feedback. The Worksheet divides capabilities into four categories: Planning and Regulatory; Administrative and Technical; Financial; Education and Outreach. Each municipal capability assessment is located in the Appendix Vol. I – Jurisdictional Information.

5.2 NEW JERSEY STATE REGULATIONS

New Jersey Flood Hazard Area Control Act

The New Jersey Flood Hazard Area Control Act (FHACA), part of New Jersey Administrative Code (NJAC) § 7:13, contains a regulatory standard for new habitable buildings in a flood hazard area or, in certain cases, in an area that was previously in a flood hazard that exceeds federal regulation. It requires these buildings add one foot of freeboard to the Flood Hazard Design Flood Elevation (DFE) and be set no lower than the elevation required under the Uniform Construction Code, NJAC 5:23. Habitable buildings are any building intended for regular human occupation and/or residence. This includes single-family homes and duplexes, multi-residence buildings, critical buildings, commercial buildings, accessory structures that are regularly occupied, mobile or manufactured homes and trailers intended for human residence, and any other building that is regularly occupied.

New Jersey Model Code Coordinated Ordinances

For better coordination between the requirements set forth in the NFIP, the FHACA, and the Uniform Construction Code (UCC), the New Jersey Model Flood Damage Prevention Ordinances supplied by NJDEP were upgraded to create Model Code Coordinated Ordinances in 2021. These model ordinances include statewide minimum standards and optional suggested language for higher standards. Municipalities that have adopted floodplain ordinance that exceed the statewide minimum standards within Ocean County are described in their municipal appendices (Appendices V.1 – Jurisdictional Information). These updated regulations represent a strengthening and alignment of codes that dictate floodplain management.

New Jersey Protecting Against Climate Threats Reform to Support Resilient Environments and Landscapes

The New Jersey Protecting Against Climate Threats (NJPACT) Resilient Environments and Landscapes (REAL), part of Governor Phil Murphy's January 2020 Executive Order 100, addresses environmental concerns and bolsters resilient investments in New Jersey. It adjusts coastal flood hazard areas to consider rising sea levels and storm surge, increases jurisdictional area further inland, requires higher first-floor elevations or floodproofing, and mandates higher roadways. It also implemented an inundation risk zone for structures proposed in areas of permanent or daily inundation from sea level rise. NJPACT REAL added onto stormwater management practices, encouraged nature-based solutions and renewable energy, and streamlined NJDEP permitting practices. Lastly, it worked with FEMA to clarify updates the Federal Housing Authority rules with regards to the NFIP program.[1]

Inland Flood Protection Rules

Effective as of July 2023, the Inland Flood Protection rule of New Jersey seeks to better define vulnerable areas and regulate new construction in these areas. New DFE adds two feet to fluvial (non-tidal) flood elevation mapped by NJDEP. The rule mandates use of future projected precipitation when calculating flood elevations, conformance with NJ Uniform Construction Code standards, and meeting or exceeding minimum FEMA NFIP requirements. It also requires that stormwater Best Management Practices account for runoff from both today's storms as well as future storms.[2]

5.3 MONMOUTH COUNTY CAPABILITIES

This section discusses County and regional-level established capabilities that are used to help advance hazard mitigation.

CRS Assistance Program

The CRS Program, which is run by FEMA through the NFIP, scores communities on their effectiveness in dealing with flood mitigation as well as flood plain management and development. Flood insurance policy holders in participating CRS communities are eligible for discounts in Special Flood Hazard Areas based on their community's CRS rating. The Monmouth County Division of Planning and the Monmouth County OEM have partnered to offer a Monmouth County CRS Assistance Program to provide their professional and technical expertise in hazard mitigation, community planning, public outreach, and Geographic Information System (GIS) mapping to municipalities that wish to participate.

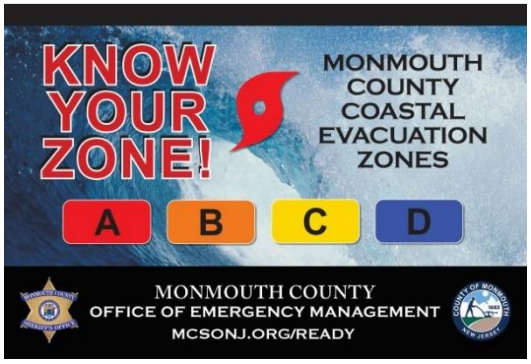
The Monmouth County CRS Assistance Program has the following work program initiatives:

- Attends municipal Insurance Services Office (ISO) meetings to ask direct questions and coordinate with towns on their certification responses.
- Provide towns with all Activity 420 mapping and analysis requirements, 440 mapping, and Special Flood Hazard Area (SFHA) calculations.
- Develops RL Area mapping and lists.
- Field questions and get back to towns with answers from State and federal officials.
- Maintains a CRS Program Resources webpage and hosts quarterly user group meeting.
- Participates in outreach efforts that earn towns additional CRS points.
- Place all required FEMA documents and historic flood information in the County library.
- Creates plans and templates for activities in 510 - Floodplain Management Planning (Floodplain Species Assessment/Plan).

[1] https://dep.nj.gov/njreal/
[2] https://dep.nj.gov/inland-flood-protection-rule/

- Incorporates the CRS program into our County's Master Plan (Community Resiliency) and our Comprehensive Economic Development Strategy (CEDS).
- Joined New Jersey Coastal Coalition (NJCC) along with several towns.
- Procured Forerunner for all Monmouth County CRS municipalities at low/no cost to them.

Other notable accomplishments of the Monmouth County CRS Assistance Program include the High-Water Mark and Know Your Zone initiatives designed to increase community awareness of flood risk and evacuation zones. The High-Water Mark initiative has distributed approximately 100 signs throughout the shore towns on public and private properties to show the high-water mark from past flooding events. Know Your Zone is a public education campaign implemented by the Monmouth County OEM to inform the residents, businesses, and visitors of Monmouth County of the new hurricane evacuation zones and their vulnerability to storm surge. Evacuation Zones should not be confused with flood zones. Evacuation zones are based on storm surge values using various hypothetical storm models bases on worst case scenarios. Zones established based on threat strength direction and storm surge.



Floodplain Management Software

In 2020, the Monmouth County Board of County Commissioners launched a shared service for a floodplain management platform for all 17 towns participating in the NFIP CRS program. Monmouth County was awarded a NJDCA LEAP Challenge Grant for CRS management software. The Commissioner's utilized the grant money, along with CARES Act funding, to acquire Forerunner's Floodplain Management Platform, which is designed to manage the floodplain compliance and outreach in communities. Forerunner was created as a tool to help plan for resiliency, create a more effective workflow for planners in municipalities and reduce flood insurance premiums for residents. The Forerunner CRS management software program was activated for all participating towns at the end of December 2020. This shared service was renewed for 16 participating towns in 2024 and will continue through March of 2027 with funding from a FEMA Fiscal Year (FY) 2022 Flood Mitigation Assistance (FMA) grant and County and municipal match funding. Towns using Forerunner will receive direct credits in CRS for using the software and a wide variety of additional credits for flood mitigation activities, which are facilitated through its use. Participating municipalities will be able to manage their CRS and other floodplain administration responsibilities with ease, reducing further challenges to executing effective floodplain management.

National Weather Service (NWS) *StormReady* County

On October 31, 2024 Monmouth County was designated a StormReady® County by the NWS. The recognition is valid for four years and it includes all municipalities in the County. Monmouth County is only 1 of 3 counties in New Jersey to have this designation. As a recognized StormReady County, towns are authorized to use the StormReady logo on their webpage, official letterheads, brochures, and other official documentation. The StormReady designation is also eligible for CRS points under the 600 series (see Chapter 610 of the 2017 CRS Coordinator's Manual).

Becoming a NWS StormReady county offers several key benefits:

- Enhanced Public Safety: StormReady designation demonstrates that the County has established reliable weather monitoring, alert, and emergency

communication systems. This helps reduce risks to residents by ensuring prompt alerts and more effective responses to severe weather events.

- Community Preparedness: The program helps build a culture of preparedness by requiring educational outreach and preparedness activities. This often includes public workshops, school programs, and community events to educate residents on severe weather safety.
- Strengthened Emergency Management: By meeting StormReady criteria, the County demonstrates that it has solid emergency management strategies and an organized response plan for hazardous weather. This can include the formation of specialized weather response teams and coordination with local Community Emergency Response Teams (CERTs) to support storm preparedness and response efforts.
- Improved Coordination: StormReady counties work closely with the NWS, ensuring direct access to timely weather information and resources. This partnership allows for better situational awareness, faster decision-making, and coordinated responses with local agencies.
- Potential for Lower Insurance Premiums: Some insurance providers recognize StormReady status as a marker of proactive disaster preparedness, potentially leading to lower premiums or improved community resilience ratings.
- Enhanced Reputation and Community Trust: Being designated as StormReady showcases the County's commitment to protecting residents, building community trust and fostering a sense of security among citizens and businesses.
- These benefits ultimately help communities better withstand and recover from extreme weather, reducing potential damages and increasing resilience.

S.T.O.R.M Program

The S.T.O.R.M Program is a dual use of the acronym, representing two readiness programs: "Students Taking on Readiness Measures Program" and "Seniors Taking on Readiness Measures Program." These programs are both offered by the Monmouth County Sheriff's Office which educate students and seniors on the importance of emergency preparedness. Participants receive a family disaster plan booklet to document personal, medical, and emergency information. Upon completing and returning the booklet, they are provided with an emergency supply kit containing basic necessities for use during emergencies.

Monmouth County CERT

CERT is a volunteer-based emergency preparedness and response program managed by the Monmouth County Sheriff's Office OEM. CERT trains community members in disaster preparedness, basic emergency response skills, and supporting emergency services during crises.

Key Aspects of Monmouth County CERT:

- Volunteer-based: Over 70 active members who assist in various emergency and planned events.
- Training & Certification: Members receive FEMA-approved training in disaster preparedness, fire safety, medical operations, search and rescue, and other critical emergency response skills.
- Deployment & Support: CERT members have:
    - Assisted in senior home evacuations.
    - Supported presidential details and large-scale events.
    - Participated in community outreach and "Register Ready" events for vulnerable populations.
    - Helped with emergency deployment of equipment and points of distribution (PODs).
    - Logged over 1,640 hours in just over a year, including advanced training, drills, and exercises.

Purpose & Impact: Monmouth County CERT enhances local emergency preparedness by providing trained volunteers who can assist first responders and support community resilience during disasters or public safety incidents.

Monmouth County "Ready Go Bag" Program
The Monmouth County "Ready Go Bag" Program is an initiative designed to assist seniors and individuals with disabilities in preparing for emergencies that may require evacuation. Developed by the Monmouth County Division on Aging, Disabilities, and Veterans Services in collaboration with the Sheriff's OEM, the program provides participants with a free disaster preparedness bag.

Key Features of the "Ready Go Bag":

- Emergency Contact List: A section to record vital emergency contacts.
- Medical Information: Space to note medical conditions and medications.
- Vital Documents Checklist: A guide to ensure essential documents are included.
- FEMA Resources: Information addressing preparedness for seniors, individuals with disabilities,

The bag is thoughtfully designed for ease of use: Size and Comfort: Measuring 14 inches by 18 inches, made of blue canvas, and equipped with an adjustable strap to be worn comfortably across the body. Accessibility: Secured with Velcro for easy opening and closing. Identification: Labeled to indicate its importance during evacuations, reading: "In case of emergency, this bag must accompany me to all shelters, hospitals, and evacuation sites."

Monmouth County Division of Social Services
The Monmouth County Division of Social Services will collaborate with each municipality to provide outreach services to those impacted communities at a designated location within that community. This Division would educate residents on the services provided and encourage them to apply for programs that they may become eligible for post-disaster such as SNAP (aka Food Stamps), Medicaid, cash assistance (General Assistance/Temporary Assistance to Needy Families) and emergency/temporary housing. This will help expediate their eligibility, to avoid disruption in their human basic needs.

5.4 REGIONAL STAKEHOLDER CAPABILITIES

There are several government agencies, colleges and universities, non-profit organizations, and volunteer organizations that are advancing hazard mitigation through ongoing projects and coordination. This section highlights ongoing capabilities occurring in Monmouth County since the last plan update.

Monmouth University Urban Coast Institute
Monmouth University Urban Coast Institute (UCI), with grant funds, will enhance Cliffwood Beach in Aberdeen Township through a nature-based approach to increase climate resilience and coastal storm protection. Its goal is to replenish the beach area that has been lost over the years. The changes will better habitat, public access, use, and community aesthetics. A 2022 Department of Defense Readiness and Environmental Protection Integration (REPI) Program Challenge Award funded design and planning. Strengthening resiliency along the shoreline will be accomplished using both structural and non-structural components. This includes:

- The construction of a series of living breakwaters to entice new biological development
- The installation of remnant shell and new oyster castle areas
- The creation of a new upland dune
- The establishment a new maritime forest area along Ocean Boulevard to stabilize nonstructural protection strategies

- Performing a beach replenishment to re-establish the beach area that has been lost due to erosion

Planning, site assessment, and design have been completed. The planning phase included meetings among UCI, Aberdeen Township, NJDEP, and NWS Earle. UCI obtained all topographic and bathymetric survey materials and coordinated with the U.S. Army Corps of Engineers (USACE), as well as NJDEP, on the proposed course of action to develop the proposed plan of action. Ongoing are final design and permitting. UCI submitted the application for a NJDEP individual permit, the review of which is expected to be complete by the end of summer 2025.

NJCC

Monmouth County is a member of the NJCC, a group of New Jersey floodplain communities that meet monthly in a NJCC has met regularly since January 2013. Meetings are usually held on the first Thursday of each month at various participant facilities. Several Monmouth County municipalities are also part of the Multi-Jurisdictional Program for Public Information (MJPPI), which is an initiative lead by the NJCC.

USACE

The USACE is conducting the Hudson Raritan Estuary Ecosystem Restoration/Oyster Restoration at Naval Weapons Station Earle. Geotechnical borings were completed (November 2-3, 2024) and hydrodynamic instruments (including acoustic doppler current profilers and turbidity sensors) were deployed (November 21, 2024) between the piers to collect data over the subsequent 45 days. Site monitoring will collect data on currents and waves, which will be used to refine the hydrodynamic model. The hydrodynamic model will be used to understand the hydraulic conditions of the installation site and the impact of the oysters on currents and waves. In addition, salinity and turbidity will be monitored to inform the design of the oyster restoration and the development of a long-term monitoring program.

USACE is also performing work at the Raritan and Sandy Hook Bay in Union Beach and in Port Monmouth. The project area in the Borough of Union Beach, New Jersey, is about 1.8 square miles along the coast of Raritan Bay. It is located in low elevation regions with numerous small creeks providing drainage. Low-lying structures in the area experience flooding from coastal storm inundation, worsened in recent years by loss of protective beaches, increased urbanization, and restrictions to channel flow in the tidal creeks. Phase 1 of the project includes sand placement, terminal groins, dune crossovers, and outfall extensions. Real estate acquisition for the project is underway.[3]

In Port Monmouth, the Raritan and Sandy Hook Bay project involves the construction of about 7,070 feet of levees, 3,585 feet of floodwalls, 2,640 feet of dune, and beach renourishment at 10-year intervals along the Raritan Bay and Sandy Hook Bay in Port Monmouth, Middletown Township, New Jersey. This will protect low-lying residential and commercial structures built on and near marshes experiencing flooding caused by coastal storm inundation. The project's estimated year of completion is 2028.[4]

USACE is working to mitigate beach erosion and protect 21 miles of New Jersey shoreline from the Borough of Sea Bright to the Manasquan Inlet, a stretch dense with populated communities and infrastructure. It includes periodic nourishment on a 6-year cycle for a period of 50 years from the start of initial construction. The project started in 1994 and was largely

[3] https://www.nan.usace.army.mil/Missions/Civil-Works/Projects-in-New-Jersey/Raritan-Bay-Sandy-Hook-Bay/Raritan-Bay-Sandy-Hook-Union-Beach/

[4] https://www.nan.usace.army.mil/Missions/Civil-Works/Projects-in-New-Jersey/Port-Monmouth/

completed by 2001; however, the last portion of initial construction was officially completed in March 2024 in Elberon, Monmouth Beach, and Sea Girt. Periodic renourishment will continue as federal and non-federal funding is received.[5]

Sandy Hook Bay at Leonardo Federal Channel is 8 feet deep, 150 feet wide, and about 2,500 feet (0.45 mile) long, from the 8-foot contour in Sandy Hook Bay to the entrance of the small boat harbor at Leonardo, NJ. It serves as a Harbor of Refuge during storms, supports a New Jersey State marina with a publicly accessible boat ramp, and supports recreational and commercial fishing. This USACE project seeks to maintain and dredge the asset. The next step is production of an annual hydrographic channel condition survey and publication of a controlling depth report, which is scheduled for FY2025.[6]

The USACE project at Shark River, a deep-draft inlet, involves the removal of shoals located at the entrance to the inlet that continue to develop and are dredged semi-annually. They were last dredged from July-August 2024. These same recurring shoals were previously dredged bi-annually going back to 2006. With each cycle, approximately 25,000 to 30,000 cubic yards of sand have been removed. This sand was relocated such that it can continue to nourish the down drift sand beaches. During FY2025, a maintenance dredging will occur, as will monitoring of the channel shoaling conditions; coordination with users, the USCG, and stakeholders; production of an annual hydrographic condition survey; and publication of the Controlling Depth Report.[7]

The navigation project of the USACE at Shoal Harbor and Compton Creek, Belford, NJ, consists of a channel about two miles in length. Maintenance dredging occurred in FY2022-23, with about 150,000 cubic yards of sand being moved to a confined disposal facility in Belford. In FY2025, the harbor and creek are due to have similar work performed as that of Shark River: monitoring of the channel shoaling conditions; coordination with users, the USCG, and stakeholders; production of an annual hydrographic condition survey; and publication of the Controlling Depth Report.[8]

The USACE is taking similar hazard mitigation efforts at the Shrewsbury River. This river consists mainly of a large tidal basin that drains into the southeastern end of Sandy Hook Bay. Its channels total over 15 miles. It serves as a Harbor of Refuge during severe storms, supports recreational boating and commercial marinas, and is adjacent to a terminal providing annual public ferry service between Highlands, NJ, and Manhattan, NY. A maintenance dredging was completed in FY2023-24, with 100,000 cubic yards of sand being removed. In FY2025, completion of ongoing maintenance dredging is expected. Also expected are production of an annual hydrographic condition survey and publication of the Controlling Depth Report.[9]

Monmouth Arts

Acknowledging Monmouth Arts as the County's primary "Arts Responder," the organization helps connect the arts community to information, resources, and emergency funding in the aftermath of a disaster. The County values the

[5] http://nan.usace.army.mil/Missions/Civil-Works/Projects-in-New-Jersey/Sandy-Hook-to-Barnegat-Inlet/

[6] https://www.nan.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/487273/fact-sheet-sandy-hook-bay-at-leonardo-federal-channel-new-jersey/

[7] https://www.nan.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/487271/fact-sheet-shark-river-new-jersey/

[8] https://www.nan.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/487261/fact-sheet-shoal-harbor-compton-creek-belford-new-jersey/

[9] https://www.nan.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/487685/fact-sheet-shewsbury-river-new-jersey/

importance of integrating the arts with hazard mitigation and therefore created a mitigation action as part of this HMP update to support Monmouth Arts, in addition to NJ State Council for the Arts and New Jersey Cultural Alliance for Response, for greater disaster preparedness and response for arts, cultural, and historic buildings, structures, and institutions.

Creative Expressions Arts and Wellness Program

Monmouth Arts' Creative Expressions Arts & Wellness Program is a countywide initiative that uses the arts to address the rise in mental health issues in youth, seniors, and other adult populations in need. Teams of teaching artists and mental health professionals deliver free arts programs and services directly to organizations, senior centers, schools and housing facilities.

Monmouth Arts has experience collaborating with various youth organizations, including the Boys and Girls Club of Monmouth County, the YMCA, The Source at RBR, Freehold Recreation, Bradley Elementary in Asbury Park, and the 21st Century Program in Freehold Borough, as well as senior organizations in Asbury Park, Red Bank, Keyport, Eatontown, and Long Branch and the Asbury Park Towers and the Red Bank Housing Authority. It also serves populations in need, including the Mercy Center and HABcore. This year, Monmouth Arts is expanding its programming to include military families and are partnering with the Naval Weapons Station Earle Fleet Family Support Center.

Creative Expressions was established in response to the COVID-19 pandemic to help underserved youth cope with the anxiety and stress resulting from the crisis. Due to the positive reception, Monmouth Arts continued and expanded the program. It has reached nearly 3,000 youth and also served seniors, individuals experiencing homelessness, and those living with HIV and AIDS.

Coastal Arts Hazard Projects

Monmouth Arts leverages art to educate the public about coastal hazards and ways to reduce risk through its Coastal Arts Hazard Projects.

In 2021, Monmouth Arts, in collaboration with Lynn Needle, founder of Art of Motion, presented an immersive performance titled "The Poseidon Project - An Aquatic Myth" to the Long Branch community. The project was featured on the Emmy award-winning New Jersey television show, State of the Arts, for a special episode on NJ Climate Art.

In 2025, Monmouth Arts hosted "Monmouth Beach Rising," a temporary multimedia art project inspired by the increasing sea levels that threaten the coastal community of Monmouth Beach. The project was created by Allison Hunter, a photographer and multimedia artist known for her video work. It occurred at the Monmouth Beach Cultural Center, a public venue near Galilee and the Navesink Marina on Ocean Avenue, and there was a community discussion on floodwater issues and participation by artists and community leaders.

Coastal hazard awareness art projects play a crucial role in educating the public about the potential risks they face and the measures they can take to mitigate these risks. By increasing awareness, communities can make informed decisions that enhance their preparedness for such events. Furthermore, these initiatives are vital for building community resilience.

When individuals feel empowered and equipped with knowledge, they are better prepared to respond to challenges posed by coastal hazards, ultimately leading to stronger, more resilient communities.

Military Installation Resilience
Monmouth County and the United States Navy have a Shared Services Intergovernmental Support Agreement (IGSA) for Installation Resilience Services in support of NWS Earle. The agreement provides supplemental support through Department of Public Works and Engineering to provide hazard tree removal, stormwater maintenance, and wildfire fuel reduction.

Watershed Management Plans

Monmouth County has five locally approved Watershed Based Plans. The Deal Lake Watershed Protection Plan (WPP), adopted by the Deal Lake Commission in 2011, and the Wreck Pond Brook Watershed Restoration Plan, adopted by the Wreck Pond Brook Watershed Regional Stormwater Management Plan Committee in 2015, are entirely within Monmouth County. The Manalapan Brook Watershed Protection and Restoration Plan, adopted by the Manalapan Brook Watershed Restoration and Protection Plan Project Committee in 2011, overlaps with Middlesex County. The Metedeconk River Watershed Protection and Restoration Plan, adopted by Brick Township Municipal Utilities Authority in 2018, overlaps with Ocean County. Finally, the Raritan Basin Watershed Management Plan, adopted by NJ Water Supply Authority in 2002, overlaps with Morris, Hunterdon, Somerset, Mercer, and Middlesex counties. Each plan has received funding through NJDEP Section 319(h) Grants for Nonpoint Source Pollution Control, a section of the Clean Water Act. While not administered by a government body, these plans attempt to address water quality issues, stormwater management, and flooding a regional level.

The Deal Lake WPP takes a regional approach and aggressive management of stormwater runoff. One of the biggest issues facing the Deal Lake, and the tributaries the feed into the lake, is stormwater runoff and high levels of pollutants from that runoff as well as from recreation use. The municipalities that share the Deal Lake Watershed are Asbury Park City, Loch Arbor Borough, Ocean Township, Allenhurst Borough, Deal Borough, Interlaken Borough, and Neptune Township. The Deal Lake Commission was created in 1974 by those seven municipalities so the problems affecting Deal Lake could be addressed on a regional scale. As previously noted, each municipality is required to develop and submit a Municipal Stormwater Management Plan and Ordinance. These plans and ordinances, in addition to other regulatory changes, are reviewed and then incorporated into the Deal Lake WPP.

The Wreck Pond Brook Watershed Restoration Plan encompasses Wall Township, and the Boroughs of Spring Lake, Spring Lake Heights, and Sea Girt. It was identified by NJDEP as a watershed of concern, due to the bacteria levels and bathing beach standards, which results in swimming bans once rainfall exceeds 0.1 inch. In addition to water quality levels, other areas of concern are in algal blooms, nutrient loads, sedimentation, and flooding.

The Metedeconk River is the primary water source for the Brick Township Municipal Utilities Authority which serves residents in Howell Township in Monmouth County along with residents in Ocean County. The Watershed also encompasses portions of Freehold Township, Millstone Township, and Wall Township. The Manalapan Brook Watershed includes portions of municipalities in Monmouth County, including Englishtown Borough, Freehold Township, Manalapan Township, and Millstone Township, as well as municipalities in Middlesex County. The Raritan Basin Watershed Management Plan includes portions of Millstone Township, Manalapan Township, Marlboro Township, Freehold Borough, and Freehold Township.

5.5 PLAN INTEGRATION

County Integration Activities

Planning for the protection and management of the coast, open space, and natural resources already integrates hazard mitigation into other planning mechanisms and provides an excellent opportunity for continued and improved integration. Monmouth County has adopted several plans and programs within the last eight years.

Monmouth County At-A-Glance (Annual)
The Monmouth County Division of Planning publishes the Monmouth County At-A-Glance report annually, which includes a description of the landscape and history, topical planning issues, demographics, cost of living, and land use for each of the 53 municipalities and Monmouth County. Under topical planning issues are links to the latest municipal master plan and information on recent development and redevelopment; resilience projects, studies, and ordinances; and CRS classification. The Project Team used the 2024 Monmouth County At-a-Glance report to help update the municipal appendices in this plan update. Note this was the most recent version of the At-a-Glance at the time of this plan update.

Monmouth County Master Plan (2016)
The Monmouth County Master Plan integrates hazard mitigation planning by framing its goals, principles, and objectives to encourage planning and mitigation measures that protect and strengthen their municipalities against the increasing threat posed by severe storm events. In Chapter 12.0 Community Resilience, the County provides several recommendations for resiliency and hazard mitigation planning, including having the Planning Division assist OEM with reviewing the County HMP update and municipal master plans and ordinances for consistency with the HMP. The Monmouth County Master Plan also provided resources and information for the HMP public project website, such as the links to resiliency and hazard mitigation planning tools. The Monmouth County Master Plan adopted the 2015 HMP update as an element of the plan and continues to act as a resources and leader in planning for resiliency and hazard mitigation. The County is currently undergoing an update to the 2016 County Master Plan.

Monmouth County Emergency Operations Plan (2017)
As noted previously, all counties and municipalities in New Jersey must prepare and adopt an Emergency Operations Plan (EOP). The primary purpose of the EOP is to prevent or mitigate, prepare for, respond to, and recover from both manmade and natural disasters. This includes providing an organizational structure for emergency responders and managing operations within the County by coordinating available resources from County and municipal governments. The plan also augments cooperation with municipalities through mutual-aid agreements with all 53 municipalities.

Monmouth County Multi-Jurisdictional Coastal Flood Evacuation Plan (2017)
One of the greatest weather-related threats to the County's population and its structures is coastal flooding. Some of the densest communities are located within one mile of the coast and the geographic location of the County along the New York Bight makes it more susceptible to storm surges over 20 feet. In 2009, an evacuation study was undertaken to evaluate how the existing evacuation routes could be improved and expanded to help move people away from flood zones. The Coastal Flood Evacuation Plan lists several factors that would lead to an evacuation decision. Those factors include population affected, water temperatures, time of day, forecast uncertainty, duration of surge, other weather hazards including winds and ice, and the timing with astronomical tide levels. There are four evacuation zones and the affected population is about 25% of the total County population (roughly 157,000 residents). The Evacuation Plan also provides guidelines for issuing County-wide flood warnings.

Monmouth County OEM Disaster Debris Management Plan (2017)

In 2017, Monmouth County became the first county in New Jersey to adopt a Disaster Debris Management Plan, receiving final FEMA approval in September 2018. The purpose of the plan is to expedite debris removal and recovery efforts in the affected area and mitigate any potential threats to life, safety, or welfare. The plan provides an organizational structure and guidelines for responsibility before a clearance event and during the removal. The Disaster Debris Management Plan also covers the responses and the recovery for all debris-causing events. As of early 2019, there were 57 approved sites for debris management; 15 County-owned and 42 municipally owned, and six applications are currently under review. Although this plan is designed to stand-alone, it aligns with the Monmouth County HMP, County EOP, and municipal EOPs. The plan will be reviewed twice a year, once in April, prior to Hurricane season, and again in September, prior to snow season, and updated if needed.

Monmouth County Short-Term Recovery Plan

The Short-Term Recovery Plan provides a framework for short-term disaster recovery for Monmouth County and its 53 municipalities. This plan also lays the foundation for long-term community recovery. The scope of this plan covers the first two weeks of incident recovery aimed at the restoration of critical services, infrastructure, and key economic drivers.

NWS Earle Joint Land Use Study (2017)

The NWS Earle Joint Land Use Study (JLUS) included nine mitigation measures regarding climate resilience with the purpose of protecting NWS Earle and nearby community assets from storm surge, localized flooding, and inundation from sea level rise. Mitigation measures focused on the use of natural solutions for shoreline protection, intergovernmental coordination and plan integration on resilience projects, and the continued study of risks to critical assets and transportation corridors. These mitigation measures were advanced in subsequent County and regional plans, including the New Jersey Fostering Regional Adaptation Through Municipal Economic Scenarios (NJ FRAMES): Two Rivers, One Future Regional Resilience Adaptation Action Plan (2019), Raritan/Sandy Hook Bay Coastal Resilience Planning Study (2019), and the Next Steps to Compatibility Planning Study (2022).

Raritan/Sandy Hook Bay Coastal Resilience Planning Study for Monmouth County (2019)

The Raritan/Sandy Hook Bay Coastal Resilience Planning Study (2019) continued the work of JLUS 2017 with the purpose of selecting "coastal resilience projects that could improve the sustainability and resiliency of NWS Earle facilities and navigational channels; the USACE projects; and the Bayshore municipalities from current and future coastal hazards." This study focuses on the Raritan/Sandy Hook Bayshore in Monmouth County. The study developed concept plans for 11 proposed coastal resilience projects in the Raritan Sandy Hook Bayshore region, including five projects in Middletown Township related to wetland restoration, beach stabilization, dune restoration, and the expansion of wave-attenuating oyster reefs landward of the NWS Earle Restricted Area. The coastal resilience projects developed as part of the Raritan/Sandy Hook Bay Coastal Resilience Planning Study (2019) were added to the mitigation strategy for Monmouth County as part of the Monmouth County Multi-Jurisdictional Hazard Mitigation Plan (2021), qualifying these projects for FEMA Hazard Mitigation Assistance (HMA) funding.

Two Rivers, One Future Regional Resilience Adaptation Action Plan (2019)

The Two Rivers, One Future Regional Resilience Adaptation Action Plan created via the NJDEP's NJ FRAMES project, is part of a multi-year risk assessment effort for the Two Rivers region in Monmouth County. The Two Rivers region includes 15 communities along the Shrewsbury and Navesink rivers. The plan developed six strategies in response to a comprehensive risk analysis for the impacts of coastal storms and sea level rise on the region. These strategies are broadly in line with those in the JLUS 2017, focusing on protecting coastal infrastructure and critical facilities as well as fostering intergovernmental coordination through a Monmouth County Coastal Resilience Committee.

Next Steps to Compatibility Planning Study, Monmouth County, New Jersey (2022)
The Next Steps to Compatibility Planning Study as a follow-up to the 2017 JLUS for NWS Earle. The project included a strategic planning process among the five municipalities surrounding NWS Earle to encourage compatible development within the NWS Earle's Military Influence Area. This study mapped opportunities and constraints within the study area, including analysis of current zoning and land use, environmental constraints and opportunities, recent housing and redevelopment, and transportation corridors. Among the environmental constraints were natural hazards including wildfire, flooding, and storm surge. This approach systematically evaluated logical places for future development through the development of a toolbox of land use options compatible with NWS Earle and do not create potential encroachment challenges. This study was the first of its kind for New Jersey, pulling precedents from across the country and crafting the strategies that align with New Jersey's Municipal Land Use Law (MLUL).

Bayshore Coastal Resilience Design Study (2022)
To advance the goals of the Raritan/Sandy Hook Bay Coastal Resilience Planning Study (2019), the County of Monmouth selected two sites for further conceptual design. The selection process considered the importance to the NWS Earle mission, operation and/or protection of base facilities, and the need for design refinement. Ultimately the County of Monmouth selected Whale Creek in Aberdeen Township and Flat Creek in Union Beach Borough. The two sites are located on coastal wetlands, along the mouths of Whale Creek in Aberdeen Township and Flat Creek in Union Beach Borough, which are experiencing more frequent and severe coastal flooding from sea level rise and storm surge impacts. The report detailed site characterizations, summarized field assessments and data collection efforts, and presented conceptual designs for each site to ensure the longevity of the coastal wetland systems.

Monmouth County Farmland Preservation Plan (2022)
The 2022 Monmouth County Farmland Preservation Plan discusses the overlap between farmland preservation and flood prevention. One such program discussed in the Preservation Plan include the federal Farmable Wetlands Program which restores previously farmed wetlands and buffers to restore vegetation and water flow which betters water quality, traps and breaks down pollutants, prevents soil erosion, prevents flooding, and provides wildlife habitat.

Local Integration Activities

Table 5.6-1 details how each municipality is currently integrating their plans and regulations with hazard mitigation and their strategy to integrate this HMP update with other community planning initiatives.

Table 5.5-1 Ongoing Municipal Planned Integration Activities with Hazard Mitigation

Municipality	Ongoing Municipal Integration Activities with Hazard Mitigation
Aberdeen, Township of	Aberdeen participated in the 2022 Raritan/Sandy Hook Bay Coastal Resilience Design Study undertaken by the Monmouth County Division of Planning. The study, funded by the Department of Defense, focused on evaluating existing conditions at the Whale Creek wetlands inland of Veteran's Memorial Park and identifying potential improvements Potential improvements for the Whale Creek wetlands include restoring the native tidal marsh community, establishing a maritime scrub-shrub community, and addressing the current hydraulic constriction. Aberdeen is one of four New Jersey municipalities currently being studied by A. R. Siders (University of Delaware) to understand how development in floodplains is regulated.
Allenhurst, Borough of	Allenhurst Design Guidelines for Historic preservation
Allentown, Borough of	Panhandle Plan, Upper Freehold Historic Farmland Byway Corridor Management Plan (2010)

Municipality	Ongoing Municipal Integration Activities with Hazard Mitigation
Asbury Park, City of	One City: West Side Choice Neighborhood Transformation Plan The Sunset Lake Master Plan Asbury Park Arts and Culture Plan
Atlantic Highlands, Borough of	The General Zoning Provisions of the Borough contains a Steep Slope Ordinance. This ordinance requires a permit for most work or disturbance, including tree trimming, in the designated Slope Area. The goal of such an ordinance is to reduce the hazards of steep slopes, such as erosion, flooding, and soil slippage.
Avon-By-The-Sea, Borough of	Part of the Regional Flood Mitigation Group that produces flood studies and ongoing mitigation projects.
Belmar, Borough of	No plan integration with hazard mitigation at this time.
Bradley Beach, Borough of	Part of the Regional Flood Mitigation Group that produces flood studies and ongoing mitigation projects.
Brielle, Borough of	No plan integration with hazard mitigation at this time.
Colts Neck, Township of	Next Steps to Compatibility Planning Study, Monmouth County, New Jersey (2022) encourages compatible development within the NWS Earle's Military Influence Area. Among the environmental constraints are natural hazards including wildfire, flooding, and storm surge.
Deal, Borough of	No plan integration with hazard mitigation at this time.
Eatontown, Borough of	No plan integration with hazard mitigation at this time.
Englishtown, Borough of	No plan integration with hazard mitigation at this time.
Fair Haven, Borough of	Monmouth County Fair Haven Borough Healthy Community Planning Report
Farmingdale, Borough of	No plan integration with hazard mitigation at this time.
Freehold, Borough of	No plan integration with hazard mitigation at this time.
Freehold, Township of	No plan integration with hazard mitigation at this time.
Hazlet, Township of	Hazlet was included in the County's Naval Weapons Station (NWS) Earle Joint Land Use Study (JLUS), completed in 2019. Hazlet received an environmental assessment report for Natco Lake Park that provides pertinent information to help guide conservation management and enhancement of the park, as well as potential solutions for the heavy tick population along park trails. The report released in February 2022 will help guide the renovation of Natco Park's trails this year.
Highlands, Borough of	The Borough was included in the study areas for two regional flood resilience projects: NJ Fostering Regional Adaptation through Municipal Economic Scenarios (FRAMES) and the NWSE JLUS. The NJ FRAMES study identifies some of the main challenges of Highlands Borough as eroding beaches, constant flooding, unprotected ferry terminals, and vulnerable sewer and sanitary pump stations. The study suggests retrofitting the marinas with hardened infrastructure for storm-surge protection as well as raising vulnerable homes and roads. The NWSE JLUS study suggests that Highlands, along with other nearby municipalities, should recognize the 3,000 ft. buffer from NWS Earle boundaries in planning documents and encourage compatible land development within this buffer. Incompatible uses include new medium to high density residential development, which would be inappropriate within the buffer.
Holmdel, Township of	No plan integration with hazard mitigation at this time.
Howell, Township of	No plan integration with hazard mitigation at this time.
Interlaken, Borough of	The Borough places a high priority on tree preservation to preserve its community character. In 2016, the Borough received funding to hire a forester to inventory all the trees within the Borough and make recommendations on maintaining this resource. This effort led to the adoption of a tree preservation ordinance in 2020 designed to prevent indiscriminate, uncontrolled, and excessive destruction, removal, and clear cutting of trees to maintain the Borough's aesthetic character and prevent erosion.

Municipality	Ongoing Municipal Integration Activities with Hazard Mitigation
Keansburg, Borough of	In the fall of 2020, graduate students from the Bloustein School at Rutgers University completed the "A More Resilient Keansburg" report that is intended to help the Borough develop a municipal resilience plan. The report includes a flood risk assessment highlighting the areas in Keansburg most at-risk to flooding, a social vulnerability assessment, as well as an evaluation of whether Keansburg's vulnerable populations face different risks from coastal flooding as compared to the community as a whole. $3.2 million in disaster relief funding has been allocated for flood control re-evaluation for projects in Keansburg and its neighboring communities. In February 2023, the U.S. Army Corps of Engineers (USACE) and the New Jersey Department of Environmental Protection announced the initiation of the Raritan Bay and Sandy Hook Bay Coastal Storm Risk Management (CSRM) Feasibility Study. The study will focus on measures including, but not limited to, beach renourishment, dune and beachfill profile changes, potential structural and non-structural measures to reduce risk of damages from coastal storm events, including hurricanes and nor'easters, and modifications to the existing project to provide improved erosion control and storm damage prevention in the project area. The USACE plans to prepare a National Environmental Policy Act document that will assess the impacts of the proposed project.
Keyport, Borough of	In 2021 the Borough developed the Keyport Complete Streets Design Guide and Complete Streets Implementation Guide, along with a Complete Streets ordinance and demonstration project. The temporary demonstration project aimed to show community members what potential traffic calming and visibility improvements to the intersection of Maple Place, Atlantic Street and Church Street could look like. This plan will advance the Borough's sustainable land use, transportation, economic, and green building planning elements by providing recommendations for Complete Streets design and implementation tailored to Keyport's roadways and community needs. Establishing Complete Streets goals, design standards and review checklist, and a complete streets ordinance. The Complete Streets Ordinance amends Keyport's municipal code to prioritize implementing complete streets in all design, planning, construction, and maintenance projects. It emphasizes how sustainable green streets design elements such as green stormwater infrastructure, shade trees, and traffic calming treatments protect and create a healthier environment and reduce localized flooding.
Lake Como, Borough of	No plan integration with hazard mitigation at this time.
Little Silver, Borough of	We have this outlined in our EOP as our sheltering plan, evacuation plan, and local EOP encompasses hazard mitigation In 2024, the Borough adopted a Complete Streets Policy, aiming to provide "safe, convenient, equitable, healthy, and environmentally and economically beneficial transportation for all users."
Loch Arbour, Village of	In response to Superstorm Sandy, Loch Arbour adopted the "Flood Damage Prevention" chapter in the Borough Code to include updated definitions of flood terms, such as Advisory Base Flood Elevation (ABFE) and Substantial Damage. The Borough also updated the basis for establishing Special Flood Hazard Areas, adopted new standards for residential and nonresidential construction, and established that structures must be elevated above the Base Flood Elevation, ABFE, or as required by the Uniform Construction Code.
Long Branch, City of	No plan integration with hazard mitigation at this time.
Manalapan, Township of	No plan integration with hazard mitigation at this time.
Manasquan, Borough of	Flood Mitigation Plan
Marlboro, Township of	2023 Farmland Preservation Plan
Matawan, Borough of	No plan integration with hazard mitigation at this time.
Middletown, Township of	Next Steps to Compatibility Planning Study, Monmouth County, New Jersey (2022) encourages compatible development within the NWS Earle's Military Influence Area. Among the environmental constraints are natural hazards including wildfire, flooding, and storm surge. We have a couple design standards in our Land Use Ordinance to protect steep slopes. We also have storm water ordinances.
Millstone, Township of	2020 Comprehensive Farmland Preservation Plan
Monmouth Beach, Borough of	Flood Mitigation Plan
Neptune City, Borough of	Part of the Regional Flood Mitigation Group that produces flood studies and ongoing mitigation projects.
Neptune, Township of	Steep Slope Ordinance Part of the Regional Flood Mitigation Group that produces flood studies and ongoing mitigation projects.
Ocean, Township of	The Township is currently implementing a 5-year plan to clean the existing stream corridors as well as working with the Borough of Deal in an attempt to alleviate flooding in the community.

Municipality	Ongoing Municipal Integration Activities with Hazard Mitigation
Oceanport, Borough of	Leaf Compost Area, StormReady and SnowReady
Red Bank, Borough of	Red Bank Marine Park Plan (2019) Areas in Need of Rehabilitation Map Impervious Cover Reduction Action Plan for Red Bank (2017) Tree Management Plan (2016-2020) NJ FRAMES Tree Removal Ordinance (2024)
Roosevelt, Borough of	No plan integration with hazard mitigation at this time.
Rumson, Borough of	Continued comprehensive sewer rehabilitation 2024-2025
Sea Bright, Borough of	2021 Sea Bright Hazard Mitigation Plan 2018 Flood Damage Prevention Ordinance
Sea Girt, Borough of	No plan integration with hazard mitigation at this time.
Shrewsbury, Borough of	No plan integration with hazard mitigation at this time.
Shrewsbury, Township of	No plan integration with hazard mitigation at this time.
Spring Lake Heights, Borough of	Various Codes and Ordinances that serve to address potential infrastructure, residential or commercial activity that may introduce risk to the community
Spring Lake, Borough of	No plan integration with hazard mitigation at this time.
Tinton Falls, Borough of	Next Steps to Compatibility Planning Study, Monmouth County, New Jersey (2022) encourages compatible development within the NWS Earle's Military Influence Area. Among the environmental constraints are natural hazards including wildfire, flooding, and storm surge.
Union Beach, Borough of	No plan integration with hazard mitigation at this time.
Upper Freehold, Township of	Hazard mitigation plan updated
Wall, Township of	Next Steps to Compatibility Planning Study, Monmouth County, New Jersey (2022) encourages compatible development within the NWS Earle's Military Influence Area. Among the environmental constraints are natural hazards including wildfire, flooding, and storm surge.
West Long Branch, Borough of	No plan integration with hazard mitigation at this time.