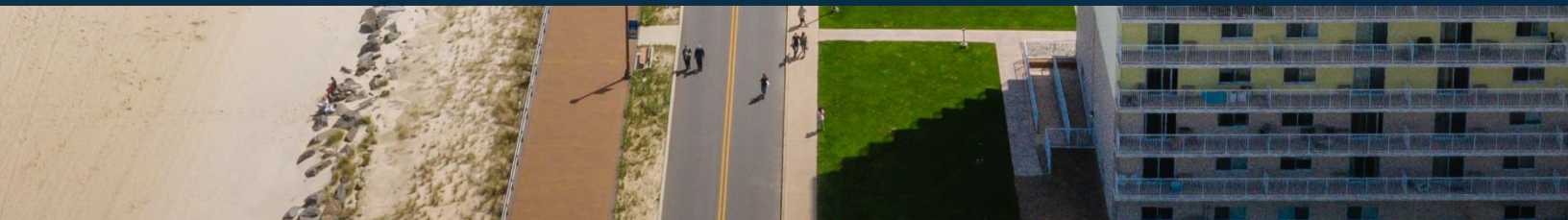




6.0 MITIGATION STRATEGY



6.0 MITIGATION STRATEGY

6.1 OVERVIEW

Monmouth County’s mitigation strategy is the blueprint for reducing potential future losses from hazards. The mitigation strategy provides information to guide County and municipal decision-making regarding the protection of people and property. The Monmouth County HMP includes goals, objectives, and actions identified by municipal, County, and other stakeholders. Mitigation goals are general guidelines that explain what the County wants to achieve. Goals are usually expressed as broad policy statements representing desired long-term results. Mitigation objectives describe strategies or implementation steps to attain the identified goals. Objectives are more specific statements than goals; the described steps are usually measurable and can have a defined completion date. Actions provide more detailed descriptions of specific work tasks to help the County and its municipalities achieve prescribed goals and objectives. Each action in the County mitigation strategy advances one or more hazard mitigation goal.

The steps involved in developing a mitigation strategy were first introduced at the October 2023 Steering Committee Kickoff Meeting and discussed in depth at the municipal mitigation workshops in December 2024. During these meetings, the Project Team and the municipality discussed new regional and local mitigation actions to address the hazards of highest concern identified through the risk assessment workshop conducted in October 2024. This section describes the strategy in developing County and municipal mitigation actions.

The Monmouth County 2026 mitigation strategy includes 129 new and 460 ongoing mitigation actions. Since 2021, a total of 115 mitigation actions have been completed, while 42 have been withdrawn. Any withdrawn action is detailed in the relevant appendix. New actions were identified by each municipality based on their risk and capability. A variety of mitigation methods were used to address all hazards present in Monmouth County.

6.2 HAZARD MITIGATION PLAN GOALS

Monmouth County revised the 2021 HMP Goals to align with recent FEMA guidance and Steering Committee comments. Additionally, mitigation objectives were added to each goal to detail implementation steps to attain the identified goals. The value of these goals in the overall mitigation strategy is that every mitigation action identified in this HMP must align with one of the nine goals below.

Table 6.2-1 Mitigation Goals and Objectives (Red Text = revision to previous goal/objective)

Goal	Objectives (all new and added per Steering Committee comments and FEMA guidance)
Goal 1 – Protect life.	1.1 Improve communication to the public during emergencies. 1.2: Reduce the risk of natural hazards on all residents and visitors, accounting for the needs and considerations of all socially vulnerable populations and underserved communities.
Goal 2 – Protect property and public infrastructure and reduce economic impacts.	2.1: Pursue pre-disaster mitigation assistance grants to assist low-income/income-qualified homeowners to mitigate homes prior to flood events as well as post-disaster. 2.2: Protect public infrastructure, community assets, and community lifelines from hazard events.
Goal 3 – Increase public preparedness, awareness, and resiliency.	3.1: Expand use and contents of current tools, such as the Know Your Zone tool. 3.2: Maintain County and local OEM website with accurate information, and consistency with information provided on State OEM website.
Goal 4 – Develop, maintain, and monitor an understanding of increased risk from climate change impacts of risks from hazards.	4.1: Review and incorporate updated hazard data into the County hazard mitigation plan. 4.2: Promote collaboration and information sharing among various stakeholders. 4.3: Work with communities to identify the impacts of hazards on socially vulnerable populations.
Goal 5 – Enhance local resilience and mitigation capabilities to reduce hazard vulnerabilities.	5.1: Continue to promote and support County shared service opportunities. 5.2: Prioritize local resilience and mitigation capabilities for socially vulnerable populations and underserved communities.

Goal	Objectives (all new and added per Steering Committee comments and FEMA guidance)
Goal 6 – Promote hazard resilient development and protection of natural resources from natural- and human-based hazards.	<p>6.1: Promote and implement nature-based solutions as an alternative to man-made mitigation activities where appropriate, including those designed to reduce carbon emissions</p> <p>6.2: Incentivize natural hazard risk reduction activities that mitigate risk to the public, infrastructure, and disadvantaged communities.</p>
Goal 7 – Support continuity of operations pre-, during, and post-hazard events.	<p>7.1: Account for the needs of individuals with household pets and service animals prior to, during, and following a major disaster or emergency, per the Pets Evacuation and Transportation Standards Act of 2006.</p> <p>7.2: Encourage planning and the implementation of alternative energy sources.</p>
Goal 8 – Support enhancement of Community Rating System (CRS) program.	<p>8.1: Encourage County participation during ISO and FEMA visits with local communities.</p> <p>8.2: Provide regional assistance for municipalities joining or maintaining status in the CRS program.</p>
Goal 9 — Mitigate High Hazard Potential Dams	<p>9.1: Monitor and maintain, using mitigation projects where necessary, to reduce the risk of dam failure across the County.</p>

6.3 EVALUATION AND PRIORITIZATION OF MITIGATION ACTIONS

When the Project Team met with the municipalities and the County, each mitigation action was discussed and updated based on their current status. The status evaluation includes completed, ongoing, withdrawn, or new.

Completed: The County and each municipality established which mitigation actions were successfully completed over the previous five-year cycle. For these completed actions, the County or municipality identified action details that may have changed or expanded, such as scope, cost, and funding source. The 2025 HMP contains the most up-to-date information provided for these actions, and the action will not be included in the mitigation actions table in future plan updates.

Ongoing: The Planning Team worked with the County and each municipality to reflect progress in the HMP implementation. Ongoing mitigation actions are those that were started but not completed or not started. They are carried forward from the 2014 and/or 2021 plan into this plan update. In each municipal appendix, the reasoning for the ongoing status is noted in the “Notes” column.

Withdrawn: The Planning Team also worked with the County and each municipality to pinpoint Withdrawn Mitigations Actions, those that were included in the previous HMP but are no longer feasible, practical, or necessary to implement. These typically are actions completed by another entity or actions combined with other actions but may also be actions that did not retain political or fiscal viability.

New: The Planning Team worked with the County and each municipality to identify New Mitigation Actions to include in the hazard mitigation planning process. These may be actions that were started but not discussed in previous HMPs or actions that the County or municipality intends to start in the coming five years.

Prioritization of Mitigation Actions

In addition to reviewing the status of each mitigation action, the Project Team worked with municipalities and the County to prioritize all ongoing and new actions using the New Jersey State Hazard Mitigation Plan’s 2024 Mitigation Action Prioritization Tool (MAP-T). Municipalities and the County reviewed their ongoing and new actions against MAP-T’s 14 criteria (Table 6.3-1) to evaluate the priority of the mitigation action. The more criteria that an action addresses, the higher its priority becomes. Action prioritization rankings are Low (action meets less than 6 criteria), medium (action meets between 7-11 criteria, and High (action meets above 11 criteria).

Table 6.3-1 MAP-T’s Criteria and Description

Criteria	Description
Life Safety	Protection of life and prevention of injury Consider adverse effects on one segment of the population.
Property Protection	Elimination and reduction of damage to structures and infrastructure. Consider development in the floodplain or high-risk areas.
Cost-Effectiveness	Commensurateness of cost of the action with the benefits achieved.
Political	Public support and political will in support of the action. Consider any conflict with development pressures.
Legal	Authority to implement the action.
Fiscal	Capability to fund under existing program budgets, obtain authorization for a new budget, or acquire funding from another source like a grant.
Environmental	Potential environmental impacts of the action, compliance with environmental regulations, and co-benefits of the action.
Social Vulnerability	Benefits to socially vulnerable populations and underserved communities.
Administrative	Personnel and administrative capabilities to implement the action and maintain it, capability to obtain outside help, and alignment of the project’s scope and scale with the entity’s capabilities.
Hazards of Concern	Mitigation of high-ranked hazards through the action.
Climate Change	Incorporation of climate change projections for the State into the action, designs to withstand/address long-term conditions, and consistency with the State’s climate resilience goals.
Timeline	Capability to complete the action in less than 5 years (within the planning horizon of the HMP).
Community Lifelines	Benefits that the action provides to community lifelines.
Other State and Local Objectives	Advancement of other entity objectives, like capital improvements, economic development, environmental quality, or open-space preservation, and support of policies of other plans and programs.

6.4 MUNICIPAL MITIGATION STRATEGY

This section provides a high-level summary for each municipality’s mitigation strategy. New to this plan is the “Mitigation Statement,” which summarizes what each municipality has prioritized through hazard mitigation planning since the last HMP in 2021 and their plan on what to prioritize for hazard mitigation in the next five years (2031). The Project Team worked with the municipalities to develop their mitigation strategy statement, which is included in Table 6.4-1. Additionally, the number of completed, ongoing, new, and withdrawn actions are also included in Table 6.4-1. For the full municipal mitigation strategy, refer to each municipal appendix (Appendices Vol. I – Jurisdictional Information).

Table 6.4-1 Municipal Mitigation Strategy Summary

Municipality	Mitigation Statement	# of Completed Actions	# of Ongoing Actions	# of New Actions	# of Withdrawn Actions
Aberdeen, Township of	The Township of Aberdeen is a Bayshore Community that actively seeks to establish proactive policies with the goal of increasing Aberdeen Township's resilience to natural catastrophe damage and adapting to future climate issues. The Township is currently working on a Beach Restoration Program to counteract shoreline erosion. Aberdeen Township has produced a Stormwater Management Plan, a Watershed Protection and Restoration Plan, and a Capital Improvement Plan, all of which promote a thriving community and help the Township achieve its resiliency goals. Moving forward, Aberdeen Township will prioritize home, roadway, and critical infrastructure elevation, ongoing upgrades to water, sewer, and stormwater conveyance	5	6	0	0

Municipality	Mitigation Statement	# of Completed Actions	# of Ongoing Actions	# of New Actions	# of Withdrawn Actions
	systems, and collaboration with State and local agencies on the best ways to achieve resiliency in this vulnerable coastal community.				
Allenhurst, Borough of	The Borough of Allenhurst is a sustainable community that actively works to fuse scientific evidence with proactive policy and aims to improve Allenhurst’s resiliency to damage from natural disasters and adapt to future climate concerns. Since 2020, the Borough has completed an emergency generator, and emergency operations plan which promotes a flourishing community and further support the municipality’s resiliency goals. Moving forward, Allenhurst will remain forward thinking and prioritize home, roadway and critical infrastructure improvements, continued upgrades to water, sewer and stormwater conveyance systems and coordinate with State and local agencies on the best ways to achieve resiliency within this vulnerable coastal community.	2	4	2	2
Allentown, Borough of	Allentown Borough actively works to improve resiliency to damage from natural disasters. Since 2020, the Borough has adopted updated stormwater management and floodplain management ordinances. Moving forward, the Borough will remain forward thinking and continue to coordinate with State and local agencies on the best ways to achieve resiliency within the community.	1	5	2	1
Asbury Park, City of	The City of Asbury Park has prioritized flood prevention as a major goal in 2025. Recent flooding events and overall stormwater system deficiencies necessitate the development of strategies and implementation of capital improvements to prevent future flooding, minimize flood damage, and improve the performance of the City’s existing stormwater infrastructure.	2	12	1	0
Atlantic Highlands, Borough of	The Borough of Atlantic Highlands is a sustainable community that actively works to integrate environmental planning with proactive policy and aims to improve resiliency to damage from natural disaster. Since 2020, the Borough has completed the standby generator project and continues to work on completion of additional projects to enhance the municipality’s resiliency goals. Moving forward, Atlantic Highlands Borough will remain forward thinking and prioritize roadway, steep slope, and critical infrastructure improvements, coordinating with local, County, and State agencies on the best ways to achieve resiliency within this community.	0	7	1	0
Avon-By-The-Sea, Borough of	Since 2021 Avon-By-The-Sea has been focused on flood mitigation with new homes being built to the new flood elevations and the remodeled homes being retrofitted as much as possible to bring them into compliance. We have also been focused on the river and lake with flood compliance as well. The Shark River has had back-flow preventers installed in three different pipes that allow outfall of water to the river to prevent water from backing up into the road surfaces adjacent to the river. These have been successful in reducing flooding along the river unless the water comes over the wall adjacent to the river. At the Sylvan Lake we have removed a concrete wall adjacent to the lake in three larger sections and replaced the wall with a sloped area of vegetation which reduces the likelihood of flooding from coming into adjacent roadways or yards. A middle section of the lake is still under consideration for this type of work, but this area has several sections which are already down and reducing the challenges with flooding. Other than that, the Town continues to educate the residents on emergency preparedness.	0	6	0	0
Belmar, Borough of	The mission of the Borough of Belmar Hazard Mitigation Plan is to enhance the resiliency and safety of our community by proactively identifying, assessing, and reducing the risks posed by natural and human-made hazards. Through collaborative efforts, strategic planning, and the implementation of practical solutions, we aim to protect lives, property, and the environment while ensuring the continued vitality of Belmar. We are committed to fostering a culture of preparedness, promoting sustainable development, and prioritizing the well-being of our residents and visitors in the face of current and future challenges.	2	5	4	1
Bradley Beach, Borough of	The Borough of Bradley Beach has prioritized the installation of a new outfall pipe and bulkhead at Sylvan Lake as well as replacement of dunes along the entire beachfront. Extend the promenade and bulkhead along Ocean Avenue. Elevate or relocate buildings and infrastructure in flood prone areas. Dredge Sylvan Lake. Acquire and install generators and surveillance cameras to critical structures for continuity of service in Bradley Beach. Additionally,	0	8	1	0

Municipality	Mitigation Statement	# of Completed Actions	# of Ongoing Actions	# of New Actions	# of Withdrawn Actions
	coordination efforts with neighboring municipalities and Monmouth County to address localized flooding is also a priority.				
Brielle, Borough of	Our overall mitigation strategy focuses on enhancing community resilience by addressing the most critical vulnerabilities to natural disasters. Over the next five years, we will prioritize infrastructure improvements. Additionally, we will invest in flood control measures and emergency response enhancements to ensure the safety and well-being of our community.	0	5	0	0
Colts Neck, Township of	Colts Neck Township has been and continues to actively seek proactive planning to better serve the Township with regards to natural disasters that may hinder the daily operations of the Township and its residents. Since 2021, the Township has collaborated with shared service opportunities, both public and private, to mitigate future disasters around the Township. This has been an ongoing process and continues to be assessed on a quarterly basis (LEPC). Colts Neck Township will continue to develop its planning with for future potential hazards with the highest concerns for public safety and awareness.	0	6	1	0
Deal, Borough of	Since the 2021 plan update, the Borough of Deal has prioritized coastal resilience, stormwater management improvements, and enhanced emergency response capabilities to mitigate the risks posed by flooding and severe weather events. Key efforts have included upgrades to drainage infrastructure, reinforcement of the Borough’s seawalls, and expanded community preparedness initiatives. Over the next five years, Deal will focus on shoreline stabilization, flood mitigation along critical roadways, and sustainable stormwater solutions to address the growing challenges of climate change. These proactive measures will help protect residents, safeguard infrastructure, and ensure long-term resilience for the community.	0	2	10	0
Eatontown, Borough of	Since the last plan, the Borough is prioritizing getting the Wampum Lake gates replaced and dredging of the brooks. During heavy rainstorms we are having our brooks over run their banks, which creates flooding. When this happens, the Borough must shut down roads thus impeding our emergency response. Also, we have purchased three schools (shelters) and we are waiting for the board of education to complete the study to have generators installed. Finally, we have been working with the various departments to write SOPs to deal with storm events and how they impact their departments.	1	5	1	0
Englishtown, Borough of	No mitigation strategy identified at this time.	0	6	0	0
Fair Haven, Borough of	Since the 2020 plan update The Borough of Fair Haven has focused on rebuilding the Department of Public Works Building, installing a generator for all Borough buildings and acquired a flood prone house at the end of Fair Haven Road. We will continue to improve our storm sewer infrastructure to reduce flooding and will work with utility companies for better maintenance of trees prone to damaging wires during a storm. These efforts underscore The Borough of Fair Haven’s commitment to safeguarding residents and promoting sustainable growth in the face of evolving hazards.	4	5	0	0
Farmingdale, Borough of	The Borough has most recently focused on hardening its Emergency Services for the community. The prior shared service with Howell Township has been dissolved and we have been focusing on building an OEM that directly serves the residents of Farmingdale. This encompasses all services from disaster planning and recovery to immediate emergent services. We are focused on “hardening” the Borough to do what we can to insulate its citizenry from disaster. This includes office upgrades for Boro staff, mitigating issues brough on by natural occurrences while making public buildings more available to the community in times of need. We are also undergoing an overhaul to our Water Utility, having completed a total rehab of the Water plant and Water Tower 2 years ago, and currently upgrading all the water meter stock to a remote read system. Not only allowing for ease of meter reads, removing for the need for staff contact with residents, but allowing us to more accurately and quickly pinpoint when and where breaks may occur, reducing the waste of natural resources. These efforts underscore the Borough of Farmingdale’s commitment to safeguarding residents and promoting continuity in the face of evolving hazards.	1	5	0	0

Municipality	Mitigation Statement	# of Completed Actions	# of Ongoing Actions	# of New Actions	# of Withdrawn Actions
Freehold, Borough of	The Borough of Freehold is an older town with many large trees. Some of these trees are located between the sidewalk and the curb making them a hazard as the mature in age. These trees are easily uprooted during times of storms and heavy winds. The Borough of Freehold Shade tree Program will continue to identify these trees and dead trees and remove them so they do not fall on structures, take down power lines and block streets. The Borough also works with the Power Company, Jersey Central Power & Light and allows them to trim the trees so they are less likely to take down power lines and create power outages throughout the Borough of Freehold. The Borough of Freehold also, when it is possible, replaces trees that have been removed, the replacement trees that are used are ones that are less likely to uproot sidewalks and curbs and only grow to a height which are below the power lines so in the future there will be fewer large trees that could fall on and damage structures and take down power lines. The Borough of Freehold will continue to investigate funding to install backup electrical generators as stated in the below new actions.	3	7	1	0
Freehold, Township of	The Township of Freehold has provided the below mitigation actions to prioritize mitigation measures to protect the health safety and welfare of the public. This includes but is not limited to improvements to the streams throughout the Township to minimize impacts of downstream erosion, upstream flooding, etc.; providing backup power to critical facilities and ensuring that Township infrastructure (both utilities and roadway infrastructure) can function and mitigate further damage during a disaster. As seen by the below table, several actions have been completed or are at the precipice of being completed in the near future and we intend to continuous our strategies in a similar fashion in the future.	2	11	2	2
Hazlet, Township of	As we improve roadways in the floodplain, we plan to install drainage to help mitigate localized flooding.	3	5	3	2
Highlands, Borough of	Since 2020 Highlands Borough has adopted August 2022 the NJDEP Model Floodplain Ordinance and invested in a new 2024 Department of Buildings and Housing with technical staff to dovetail the UCC and Floodplain Compliance required to create a comprehensive Floodplain Permitting Process that will facilitate efforts to remove National Violation Tracker NVT properties from FEMA Region 2. Additionally, this investment promotes floodplain compliance through education and compliance action with our residents – creating a resilient place to live, work and invest. Investment in Forerunner Platform August 2023 to manage, track and maintain all Floodplain documentation demonstrates Highlands’ commitment to floodplain management. Highlands continues working closely with Monmouth County CRS to attain CRS certification and is awaiting a CAV visit to be scheduled since June 2024.	0	11	1	0
Holmdel, Township of	The Township of Holmdel is committed to becoming a community resilient to damage from natural disasters and climate concerns. The Township and its stakeholders have formed critical partnerships to develop plans and identify much-needed upgrades and changes. The Township recently completed a Stormwater Management survey and updated emergency response plans. We continue to prioritize areas for improvement and look for alternatives to achieve our goals. As the Township moves forward, we will maintain transparency with the community and will distribute plans as they are developed.	3	6	0	0
Howell, Township of	The Township of Howell is consistently working on mitigation strategies to build a sustainable and resilient community. Our efforts are to improve and build-upon our current infrastructure to make us better prepared for both man-made and natural disasters. Through a collaborative effort with our stakeholders, we have identified threats and hazards and developed the following strategies to mitigate any damage that may occur to our community.	1	12	1	0
Interlaken, Borough of	Since the 2021 plan update, the Borough of Interlaken has focused on strengthening flood resilience, improving stormwater infrastructure, and enhancing emergency preparedness to mitigate natural hazard risks. Key initiatives have included upgrades to drainage systems, reinforcement of coastal barriers, and improved coordination for emergency response efforts. Over the next five years, Interlaken will prioritize shoreline flood mitigation, roadway elevations along critical access routes, and investments in sustainable stormwater management to address	0	3	3	0

Municipality	Mitigation Statement	# of Completed Actions	# of Ongoing Actions	# of New Actions	# of Withdrawn Actions
	increasing climate challenges. These proactive measures will help protect residents, reduce property damage, and ensure long-term community resilience.				
Keansburg, Borough of	Keansburg needs sand replenishment. After Sandy, USACE had replenished the sand once, but there is need for more replenishment. In Lower Carr Ave/Beachway, there is concern that a building near a construction pit that fills with up water during heavy rainfall would fall in. However, there is a plan in the works to fill in/develop the pit and install pumps. Waacaack Creek needs dredging and bigger pumps. As a result, during high tide, flapper valves are blocked by debris causing 99% of the Borough to flood. The new pipes are perhaps too efficient for the current pumps, so the Borough needs better pumps. The Borough is looking for grants to assist with the dredging and pump installation. The floodgate in the Borough is owned by the State.	22	30	0	0
Keyport, Borough of	Since 2021, the Borough of Keyport has worked to leverage Federal, State and Local funding to plan and implement significant investments in its municipal infrastructure and emergency operations. Given the Borough’s geographic location along the Bayshore, coastal storm and flooding hazards are a familiar threat faced by its residents, with hazardous weather events exacerbated by the effects of climate change. Borough leadership has set a goal to work towards a resilient future. This encompasses not only vulnerable waterfront facilities, including storm sewer improvements and the elevation of bulkheads, roadways, and low-lying areas, but also for the Borough’s storm sewer, sanitary sewer, and water networks which have served residents for over a century. Notably, the Borough was selected by the EPA as one of ten municipalities across the State for its Lead Service Line Replacement accelerator program, which will fund and target the replacement of antiquated drinking water infrastructure over the next five years. The Borough’s team is focused on providing the necessary infrastructure and operational improvements and planning necessary to prepare for both natural and human-induced hazards, while providing consistent and safe services to residents.	3	16	3	3
Lake Como, Borough of	The mission of the Borough of Lake Como Hazard Mitigation Program is to enhance community resilience by identifying, reducing, and managing risks associated with natural and human-made hazards. Through proactive planning, public engagement, and strategic investments, we aim to protect lives, property, and the environment while ensuring the long-term sustainability of our community. We are committed to identifying and assessing potential hazards that may impact Lake Como, implementing cost-effective and sustainable mitigation strategies, promoting public awareness, education, and preparedness and strengthening infrastructure and natural systems to reduce vulnerabilities. By fostering a culture of preparedness and resilience, we strive to safeguard the well-being of our residents, businesses, and visitors while preserving our community's unique character.	3	4	3	2
Little Silver, Borough of	The Borough of Little Silver is a sustainable community that actively works to fuse scientific evidence with proactive policy and aims to improve Little Silver’s resilience to damage from natural disasters and adapt to future climate concerns. The Borough is in discussions with Installing a series of Living Breakwaters that would be positioned in the Shrewsbury River, east of the Gooseneck Bridge on both the Oceanport and Little Silver side to assist with flood mitigation. Moving forward, Little Silver will remain forward thinking and prioritize home, roadway and critical infrastructure elevation, continued upgrades to water, sewer and stormwater conveyance systems and coordinate with State and local agencies on the best ways to achieve resiliency within this vulnerable coastal community.	1	7	1	2
Loch Arbour, Village of	Since the 2021 plan update, The Village of Loch Arbour has prioritized enhancing flood resilience, strengthening emergency response capabilities, and improving critical infrastructure to mitigate natural hazard risks. Key completed actions include upgrading stormwater management systems, reinforcing evacuation routes, and improving backup power at essential facilities. Over the next five years, our focus will shift toward addressing the increasing impacts of climate change by implementing targeted roadway elevation projects, enhancing floodplain management strategies, and expanding public emergency preparedness initiatives. These efforts	0	4	5	0

Municipality	Mitigation Statement	# of Completed Actions	# of Ongoing Actions	# of New Actions	# of Withdrawn Actions
	are designed to safeguard residents, minimize property damage, and ensure long-term community resilience.				
Long Branch, City of	The City of Long Branch is a sustainable community that is focused on actively working to mitigate common issues in town to improve our resilience to major storms and weather events as well as maintaining a level of operational readiness to respond to and mitigate any and all threats. Since 2021, our major focus was to reduce flooding in prone areas especially those that follow evacuation routes out of and through Town infrastructure updates and assuming the risk in RL and SRL buildings and property. Moving forward, our goal is to continue these efforts as well as implement changes to the sewage treatment plant systems in town and to coordinate with other local and State agencies to achieve a level of whole community resiliency within this vulnerable coastal city.	0	18	3	0
Manalapan, Township of	Following Manalapan Township’s last plan update, municipal staff has continued its focus on the Special Flood Hazard Areas, which are primarily adjacent to brooks, creeks & other waterbodies. The Township’s mitigation strategies to reduce the impact of potential flooding conditions are as follows: a) inspection of streams, brooks, other waterbodies and storm water outfalls to identify obstructions and confirm flow; b) removal of obstructions when permitted by State guidelines; c) examination and maintenance of municipal detention and retention basins to control storm water runoff as originally designed; d) enforcement of its floodplain management and storm water management ordinances to ensure compliance with corresponding County, State and federal regulations, thereby reducing flood risk and adverse downstream impacts; and e) cooperation and communication with the NJDEP relative to compliance with its land use regulations, including but not limited to the Freshwater Wetlands Protection Act Rules and the Flood Hazard Area Control Act.	1	4	0	0
Manasquan, Borough of	The Borough of Manasquan is prioritizing flood mitigation in this plan update as a multitude of other local mitigation activities have already been completed since the last update, including but not limited to increasing public notification systems, lightning protection, emergency back-up power for critical facilities as well as redundant communication networks. Manasquan is prioritizing flood mitigation actions such as tide valves, road elevations, seawalls, bulkheads and other storm surge barriers due to an observed increase in frequency of storm events as well as documented and sustained sea level rise which has adversely impacted public safety, increased property damage, and impeded local transportation for Manasquan residents. Flooding poses an increased public safety threat as residents often become trapped in their vehicles or homes and also impacts accessibility of public safety functions such as law enforcement, emergency medical services and fire / rescue responses.	8	7	0	4
Marlboro, Township of	Marlboro Township strives to improve its resilience through the use of the latest technologies, means, methods and scientific data available. The Township will continue to review and evaluate existing or emerging conditions and work with Federal, State, County and other Local agencies to develop mitigation strategies based on the hazards and threats identified. These strategies are supported through a dynamic 6 year capital plan that is used to prioritize, recommend and direct local resources towards addressing stormwater and stream corridor issues brought about by extreme rainfall events and shifting climate conditions, as well as providing system redundancy in response to disruptions to power and IT infrastructure.	0	6	1	0
Matawan, Borough of	The Borough of Matawan is a mostly residential community that actively works to implement proactive policy and improvements aimed at increasing Matawan's resilience to damage from natural disasters and adaptation to future climate concerns. Since 2021, the Borough has provided auxiliary power to the Matawan Municipal Community Center and has relocated its Police Headquarters to join Borough Hall and the Office of Emergency Management’s Operations Center all under one roof. It also has begun a project to raise Aberdeen Rd. (scheduled completion of July 2025), a necessary improvement prior to replacing existing high hazard dams. These projects promote a flourishing community and further support the municipality’s resiliency goals. Moving forward, the Borough of Matawan will remain forward thinking and prioritize the replacement of both Lake Lefferts (scheduled start date of October 2025) and Lake	0	8	1	0

Municipality	Mitigation Statement	# of Completed Actions	# of Ongoing Actions	# of New Actions	# of Withdrawn Actions
	Matawan dams, in addition to other projects regarding the cleaning out of outfall pipes located within the numerous ravines throughout the Borough and the upgrading of critical facility generators (Sewer pumping stations) in addition to coordinating with State and local agencies on the best ways to achieve resiliency within the community.				
Middletown, Township of	The Township has prioritized and will continue to prioritize the enforcement of our Flood Hazard Ordinance, particularly the substantial improvement process and elevation requirements. We also plan to continue the multi-agency work with NJDEP and the Army Corps to progress the Port Monmouth Flood Control projects, bulkhead repair in Belford, and marsh and dune restoration in Leonardo. Our Municipal Master plan update will be adopted soon, and we continue to include climate resilience and mitigation moving forward into the future.	5	9	2	0
Millstone, Township of	During our annual budget process, we review and assess risks and potential hazards. During the past few years upgrading some of our arterial roads via milling, paving, and upgrading the drainage structures with the help of NJDOT grants has been our largest capital expenditures.	1	8	2	0
Monmouth Beach, Borough of	Since the last plan update, our mitigation strategy has prioritized enhancing resilience to sea level rise and tidal flooding, as well as strengthening defenses against emerging threats like cyber terrorism. Over the next five years, we will focus on investing in infrastructure improvements to address coastal flooding, implementing floodplain management initiatives, and advancing Artificial Intelligence alternatives and cybersecurity measures to protect critical systems. Our approach is to continually fortify against current vulnerabilities and proactively preparing for future risks.	5	9	1	3
Neptune City, Borough of	The Borough of Neptune City is actively working on several projects with the ultimate goal of assisting with and increasing resilience against damage from natural disasters and having the ability to adapt to future climate concerns. Since 2020, the Borough has entered into a Comprehensive Drainage Study to help mitigate flooding throughout the community. Furthermore, the Borough intends to upgrade critical infrastructure to increase resiliency towards natural disasters in this coastal community.	3	4	3	1
Neptune, Township of	Since the last plan update in 2021, Neptune Township has prioritized infrastructure improvements to reduce flood risk, including the construction of living shorelines, bulkhead replacements, and stormwater management upgrades. Moving forward, the Township will focus on enhancing resilience through continued flood mitigation efforts, upgrades to critical infrastructure, and targeted property acquisitions in high-risk areas. These efforts aim to protect residents, reduce repetitive loss properties, and strengthen the community's ability to withstand future hazard events.	3	15	7	4
Ocean, Township of	The Township of Ocean (Monmouth County) is a sustainable community that actively integrates scientific evidence into proactive policymaking. Its objective is to enhance the Township's resilience to natural disasters and adapt to evolving climate concerns. Since 2020, the Township has been actively engaged in cleaning primary brooks and streams within its jurisdiction to improve stormwater runoff. Furthermore, various projects are currently in various stages of planning and implementation to further enhance stormwater management. As the frequency and severity of storms and other events continue to increase, the Township will prioritize projects that contribute to life safety, property conservation, and other essential objectives.	1	10	4	3
Oceanport, Borough of	The Borough of Oceanport actively works to include best practices with proactive policies and careful planning to improve Oceanport resilience to damage from natural disasters and adapt to future climate concerns. Since our last plan submission, the Borough has completed the relocation of Borough Hall, Police Department and Public Works on to Fort Monmouth, addressed generators in critical facilities, continued improvements to our stormwater system and street curbing, all which further support the municipality's resiliency goals. Moving forward, Oceanport will remain forward thinking and prioritize home, roadway elevation and continued upgrades to stormwater conveyance systems while coordinating with State, local agencies and non-governmental organizations/other partners on the best ways to achieve resiliency within our vulnerable community."	0	8	3	1

MONMOUTH COUNTY, NEW JERSEY
HAZARD MITIGATION PLAN 2026

Municipality	Mitigation Statement	# of Completed Actions	# of Ongoing Actions	# of New Actions	# of Withdrawn Actions
Red Bank, Borough of	The Borough of Red Bank is going through multiple development projects regarding residential and commercial construction. Critical infrastructure including Borough facilities are being addressed by the Engineer as these projects are proposed and approved. Over the next 5 years Red Bank anticipates the area at marine park will be transformed into a space on the river that is pedestrian and more family useable once the parking is removed from that area. Grading and hardscape will further address any flood prone areas. The Borough of Red Bank is looking forward to completing a plan for the use of the Senior Center at 90 Shrewsbury Ave. as a temporary shelter if needed.	0	8	1	0
Roosevelt, Borough of	Roosevelt Borough is a residential community with significant swathes of protected forest and wetlands. Therefore, increasing the Borough’s capacity to deal with hazards caused by extreme weather events, especially those involving forest fire or flooding, will remain a priority. Those actions that will be prioritized are: (1) Expanding the brush removal program to mitigate hazards caused by wildfires, including the speed at which they could spread and thus imperil both our residential and municipal properties; (2) Continue and Enhance the Stream Maintenance Program to decrease the hazards of flooding due to extreme weather events; and (3) Retrofit structures with Ignition-resistant materials when repairs are required in order to decrease the impact of wildfires on critical municipal infrastructure.	0	10	0	2
Rumson, Borough of	Since the 2021 plan update, the Borough of Rumson has focused on enhancing flood resilience, improving emergency response capabilities, and upgrading critical infrastructure to mitigate natural hazard risks. Key completed actions include elevating homes to meet updated FEMA standards, improving drainage systems, and enhancing backup power at essential facilities. Over the next five years, Rumson aims to prioritize projects that address emerging climate challenges, such as sea-level rise, by expanding mitigation strategies like updated flood mapping, adopting advanced emergency alert systems, and upgrading community shelters. These efforts underscore the Borough of Rumson’s commitment to safeguarding residents and promoting sustainable growth in the face of evolving hazards.	1	20	11	3
Sea Bright, Borough of	While improvements are ongoing, we have made completed updates to the seawall along the beachfront to mitigate ocean flooding. We continue to see improved bulkheads along the riverfront side with new projects and residences going up, but the effects have yet to bear fruit until the projects are completed.	0	10	0	1
Sea Girt, Borough of	The Borough of Sea Girt has prioritized the mitigation of flooding and storm protection since our last update. Recent repairs and extensions to our outflow pipes, the work at Wreck Pond, dune maintenance/care and the 785,000 cu yds of sand recently replenished by the Army Corps of Engineers on our beaches contribute towards this goal. The Borough also has prioritized the notification to residents from all departments and emergency events that happen that require notification and attention.	5	8	1	0
Shrewsbury, Borough of	Shrewsbury Borough continues to implement comprehensive strategies to proactively reduce the risk of damage and loss of life from natural hazards like floods, hurricanes, and winter storms by identifying high-risk areas, implementing preventative measures like land use planning and zoning, infrastructure upgrades, public awareness campaigns, and community preparedness initiatives, ultimately aiming to minimize the impact of future natural disasters and build resilience within the community. Past focus and priority have been to reduce repetitive flooding while improving and maintaining drainage infrastructure. Future projects will further focus on this area.	1	4	0	0
Shrewsbury, Township of	The Township of Shrewsbury would like to prioritize improvements their critical facilities, including a generator for the municipal building, air conditioning for gymnasium to use as a cooling station, and lighting to assist with safety and security concerns for the park and recreation.	0	6	1	0
Spring Lake Heights, Borough of	The Borough of Spring Lake Heights is committed to fostering a robust shore community by engaging in both planning and mitigation actions which serve to build resiliency, sustainability and which recognize and manage risk on an ongoing basis. The Borough will continue to seek broad stakeholder participation in this effort and maintain a keen awareness of climate change	5	7	1	0

Municipality	Mitigation Statement	# of Completed Actions	# of Ongoing Actions	# of New Actions	# of Withdrawn Actions
	as it evaluates risk/all-hazards with local, State and Federal partners. Major weather events and nuisance flooding remain a future focus.				
Spring Lake, Borough of	The Borough of Spring Lake has placed hazard mitigation and resilience as a high priority. Multiple hazard mitigation projects have been designed and constructed to improve the stability of our coastal shores and to manage our stormwater management infrastructure. The Borough continues to make the community more resilient by upgrading infrastructure and by controlling development in flood prone areas. The Spring Lake Office of Emergency Management has updated our Emergency Operations Plan and provided a plan for evacuation routes, public communication and temporary shelters. We currently have funding and a plan in place to perform dredging in Lake Como to provide adequate storm water storage, water quality and storm water management.	6	3	1	1
Tinton Falls, Borough of	The Borough of Tinton Falls is committed to doing all we can to mitigate hazards before they happen to create a more resilient community that reduces the threat of loss of life and property due to both natural and manmade events. Since the last plan update, we have completed various stormwater and flooding improvement projects, as well as nearing the completion of security and safety upgrades at the Municipal Complex. We have also obtained Bronze Level with Sustainable Jersey. Over the next five years, we plan to continue to address areas with chronic flooding and complete the security and safety upgrades at the Municipal Complex and other Borough-owned properties. We also plan to take a more proactive approach to community awareness and education through increased social media posts.	0	18	0	0
Union Beach, Borough of	Since Superstorm Sandy, the Borough of Union Beach has focused on enhancing flood resilience, improving emergency response capabilities, and upgrading critical infrastructure to mitigate natural hazard risks. Key completed actions include elevating homes to meet updated FEMA standards and raising critical roads that impact response and evacuation. Over the next five years, Union Beach aims to prioritize projects that address emerging climate challenges, such as sea-level rise, by expanding mitigation strategies like updated flood mapping, advancing the Boroughs advance warning system, and continuing the Army Corps project for the beach. These efforts will benefit the Borough of Union Beach and its residents for many years to come.	3	13	0	0
Upper Freehold, Township of	Upper Freehold Township is a rural farming community with a commitment for open space and preservation of our natural resources. In addition, there are numerous horse farms in Upper Freehold Township. The Horse Park of New Jersey is located within our Township. Upper Freehold has established a Right-to-Farm Ordinance and provides support for Future Farmers of America. The Upper Freehold Country Code provides a framework for our commitment to preserve our lands and forests; to improve our resilience to natural disasters and to mitigate the effects of climate change. This initiative has begun by restricting high density zoning regulations thereby providing more open land for natural drainage during excessive rainfall events. Going forward more work is needed to lessen the impacts of climate change. Damage from lightning can be mitigated by installing lightning rods on critical facilities and installing surge protection on all electrical equipment. Educational materials for the public can be sent with the municipal tax bill; posted on the municipal web page and OEM Facebook. Lightning safety is currently taught in science classes at the Middle School.	2	8	0	0
Wall, Township of	Wall Township's mitigation action strategy focuses on enhancing community resilience by addressing key vulnerabilities to critical infrastructure. Priority initiatives include the removal of dead and hazardous trees around essential power grid components to reduce storm-related outages and the deployment of stationary license plate readers to support homeland security and crime reduction efforts. Additionally, the installation of natural gas generators at all water treatment plants and wastewater pump stations has been completed, with plans to expand generator coverage to all critical Township infrastructure to ensure continuity of operations during emergencies.	2	6	0	0

Municipality	Mitigation Statement	# of Completed Actions	# of Ongoing Actions	# of New Actions	# of Withdrawn Actions
West Long Branch, Borough of	Since the last plan update, our mitigation strategy has prioritized updating communication efforts and methods to keep residents informed and prepared for all potentially hazardous events. Over the next five years, we will focus on investing time and resources for additional planning capabilities and management initiatives, and the advancement of artificial intelligence alternatives along with cybersecurity measures to protect critical systems. Our approach is to continually fortify against current vulnerabilities and proactively prepare for future risks.	1	6	0	0
Special Districts	Although there is not one mitigation strategy, there are mitigation actions for Special Districts within Monmouth County, including Two Rivers Water Reclamation Authority, Bayshore Regional Sewerage Authority, Manasquan River Regional Sewerage Authority, and Long Branch Sewerage Authority	0	0	14	0

6.5 COMPLETED MITIGATION ACTIONS SINCE LAST PLAN UPDATE

The table below highlighted completed mitigation actions since the last plan update in 2021. For more information on each action, refer to each municipal appendix in Appendices Vol. I – Jurisdictional Information.

Table 6.5-1 Completed Mitigation Actions

Municipality	Completed Action #	Completed Action Name	Completed Action Description
Monmouth County	Action 1	Protect and Restore Claypit Creek and Portland Place	Re-establish, restore, and stabilize the eroded bluff and establish a living shoreline at the river edge to further provide protection of the slope to future storm events as well as provide and enhance habitat for fish and wildlife.
Monmouth County	Action 2	Elevate Highway District #8 Office in Hazlet	The office building and garage at Highway District #8, in the Township of Hazlet, is prone to flooding. This project is for the design and reconstruction of the building and garage at a higher elevation to ensure the continuity of services during a disaster or crisis.
Monmouth County	Action 3	Repair, Remove, or Rehabilitate the Lake Topanemus Dam in Freehold Township	Repair, remove, or rehabilitate Lake Topanemus Dam, a High-Hazard Potential Dam, located along McGellaird's Brook.
Aberdeen Township	Action 1-1	Improve Drainage/Elevate Flood-prone Roadways	Develop specific mitigation solutions for flood-prone roadways, specifically State Highway 35 at Long Neck Creek, under leadership of New Jersey Department of Transportation (NJDOT); Lakeshore Drive at Greenwood Avenue, by Township; and Amboy Avenue under the leadership of Monmouth County. Route
Aberdeen Township	Action 1-2	Elevate Pumping Stations Above Current Base Flood Elevation (BFE) or Waterproof Stations	Raise structures, or vulnerable components thereof, to either be above current BFEs, or otherwise waterproofed, to provide resiliency in future events and minimize wastewater overflows
Aberdeen Township	Action 1-3	Repair Recreation Facilities and Sidewalks Near Seawall	Develop specific mitigation solutions for both dunes and sidewalk that would help mitigate future damages and provide a greater level of resiliency.
Aberdeen Township	Action 1-4	Improve Communications and Create a Community Shelter for Extreme Temperatures	Develop specific mitigation solutions that help residents prepare for and mitigate loss of communications and seasonal severe temperature events by providing a community shelter. This project is intended to protect public health and safety and reduce the

Municipality	Completed Action #	Completed Action Name	Completed Action Description
Aberdeen Township	Action 1-5	Install Surveillance Cameras along the Sea Wall	The Township is currently installing surveillance cameras along a portion of the sea wall to monitor natural and human-based hazards. There is a need for more cameras along the second half of the sea wall.
Allenhurst Borough	Action 2-1	Purchase and Install Natural Gas Emergency Generators	The Borough seeks to provide temporary power via gas generators for Borough Hall and the Fire Station.
Allenhurst Borough	Action 2-4	Create a Temporary Shelter and Warning Center	Create a Temporary Shelter and Warming Center.
Allentown Borough	Action 3-1	Build a Flood Wall around the Wastewater Treatment Plant	Protect two buildings at the wastewater treatment plant by installing a flood wall around both buildings and portable flood gates which can be installed or removed when storms are approaching. All other tanks and treatment units will be installed above the 500-year flood hazard elevation as part of the Wastewater Treatment Plant Upgrade Project.
Asbury Park City	Action 4-1	Purchase Portable Light Towers	Portable light towers for rescues at night or during a power outage.
Asbury Park City	Action 4-2	Replace and Upgrade Generators at Critical Facilities	Replace generator at Wastewater Treatment Plant, purchase and install generators at the Asbury Park Senior Citizen Center, and replace generator at City Hall (housing the OEM Command Center and the police station). All three facilities will require a prop
Belmar Borough	Action 7-1	Purchase and Install Transfer Switches for Generators	Transfer switches for generators at the fire station/first aid building, municipal complex.
Belmar Borough	Action 7-2	Mitigate Silver Lake Flooding	The Silver Lake Flooding mitigation project is constructed. A 48" gravity fed and forced main running from Silver Lake to the Shark River Inlet under A Street.
Belmar Borough	Action 7-3	Consolidate and Relocate Emergency Services Outside of SFHA	Consolidate the three fire stations and first aid squad to a building outside the SFHA.
Eatontown Borough	Action 12-1	Develop a Power Failure Plan	Update Winter Storm Response Plan to incorporate all current aspects of recent changes throughout the Borough. Inclusive of but not limited to adding new facilities and/or structures erected since the last update, and identify personnel changes which may
Fair Haven Borough	Action 14-1	Purchase and Install a Natural Gas Generator Borough Hall/DPW Building	Purchase and install a natural gas generator Borough Hall/DPW building for loss of power in buildings.
Fair Haven Borough	Action 14-2	Acquire Two Flood-prone Properties and Convert to Open Space	Purchase property the end of Fair Haven Rd and two properties along the Navesink Rd. Demolish each house (two are vacant since Superstorm Sandy) and convert to open space.
Fair Haven Borough	Action 14-3	Repair or Enlarge Outfall Pipes along the Navesink River	The outfall pipes at the end of Haddon Park, Lewis Ln, Gillespie Ave, and River Road (County-owned) are failing and need repaired.
Fair Haven Borough	Action 14-4	Rebuild the Department of Public Works (DPW) Building and Upgrade Fuel Pumps for Continuity of Operations	The DPW building needs to be rebuilt with upgraded fuel pumps. During Superstorm Sandy, the DPW building supplied fuel to Sandy Hook
Farmingdale Borough	Action 15-1	Purchase and Install Generator for Borough Wells	The Borough Wells need backup power in the case of power failure.
Freehold Borough	Action 16-1	Update Generator for Firehouse Emergency Operations Center (EOC)	Upgrade the current and outdated generator at the firehouse which houses the Emergency Operations Center for OEM, Fire Department, Police Department, and Emergency Medical Services (EMS).

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Municipality	Completed Action #	Completed Action Name	Completed Action Description
Freehold Borough	Action 16-2	Upgrade Generator for Shelter	Upgrade of current generator at the Freehold Learning Center used as an evacuation center.
Freehold Borough	Action 16-3	Install Surveillance Cameras at Water Plant	Add security cameras to the new water plant, which is currently in the design phase.
Freehold Township	Action 17-1	Excavate and Remove Existing Storm Pipe, Stabilize Stream Banks, Replace Storm Pipe, and Install New Drainage Structure along Rose Court	Stabilization and drainage improvement of Rose Court, at the end of the cul-de-sac. Remediation of this hazard will include excavation and removal of the existing storm drainage pipe and flared end section, and stabilization of stream banks.
Freehold Township	Action 17-2	Reconstruct Culvert on Plymouth Drive	Rehabilitation of the structure number 1316X68 will include repairing the existing voids behind the side walls of the culvert with a concrete type material, lining the culvert with a high-density polyethylene elliptical pipe, and grouting the annular space.
Hazlet Township	Action 18-2	Purchase and Install Generators for Critical Facilities	Purchase, install and maintain generators for First Aid, two generator upgrades and one new generator for fire houses, and a generator upgrade for the police station.
Hazlet Township	Action 18-3	Purchase Police Protective Gear	Purchase additional police protective gear, such as helmets, outer vest carriers, ballistic vest to mitigate against the rise in terrorism.
Hazlet Township	Action 18-5	Join FEMA's CRS Program	Join CRS program to complete pro-active floodplain management and assist residents with flood insurance costs.
Holmdel Township	Action 20-1	Purchase and Install Generators for Critical Facilities	Purchase and install generators for local gas stations and generators for traffic lights at high-traveled intersections.
Holmdel Township	Action 20-2	Conduct a Fire Analysis Study	Develop a Fire Analysis Study to increase fire capabilities in southern Holmdel.
Holmdel Township	Action 20-3	Conduct Ongoing Maintenance of the Morrhoris Brook/Waycaake Creek	Desnagging and desilting Morrhoris Brook/Waycaake Creek.
Howell Township	Action 21-1	Purchase and Install Generators for Critical Facilities to Continue Emergency Services During Storms	Power for essential equipment to sustain Continuity of Operations during hazards that cause loss of power.
Keansburg Borough	Action 23-1	Relocate the Police Headquarters and Emergency Operation Center out of Flood Area	Relocate the police headquarters and emergency operation center from 179 Carr Avenue to a vacant property in the Borough.
Keansburg Borough	Action 23-2	Develop a Variance Plan	Develop a plan to allow variances on foundations of newly built structures.
Keansburg Borough	Action 23-3	Develop Hazard Mitigation Outreach Program	Create an outreach program to help residents prepare for disasters.
Keansburg Borough	Action 23-4	Reconstruct Randall Place	Improve road conditions on Randall Place.
Keansburg Borough	Action 23-5	Reconstruct Maple Avenue	Improve road conditions on Maple Avenue.
Keansburg Borough	Action 23-6	Reconstruct Grove Place	Improve road conditions on Grove Place.
Keansburg Borough	Action 23-7	Reconstruct Woodside Avenue - Phase 1	Improve road conditions on Woodside Avenue.
Keansburg Borough	Action 23-8	Reconstruct Woodside Avenue - Phase 2	Improve road conditions on Woodside Avenue.

Municipality	Completed Action #	Completed Action Name	Completed Action Description
Keansburg Borough	Action 23-9	Reconstruct Lawrence Avenue	Improve road conditions on Lawrence Avenue.
Keansburg Borough	Action 23-10	Reconstruct Myrtle Avenue	Improve road conditions on Myrtle Avenue.
Keansburg Borough	Action 23-11	Reconstruct Forest Avenue -Phase 1	Improve road conditions on Forest Avenue.
Keansburg Borough	Action 23-12	Reconstruct Forest Avenue -Phase 2	Improve road conditions on Forest Avenue.
Keansburg Borough	Action 23-13	Reconstruct Murray Lane	Improve road conditions on Murray Lane.
Keansburg Borough	Action 23-14	Reconstruct Inlet on Seeley Avenue	Improve drainage on Seeley Avenue by reconstructing the inlet and repairing the pavement and sidewalk.
Keansburg Borough	Action 23-15	Replace Piping at Willis Avenue & Park Avenue	Replace the pipe and repair the pavement and sidewalk at the intersection of Willis Avenue and Park Avenue.
Keansburg Borough	Action 23-16	Construct/Rehabilitate a Two Million Gallon Storage Tank	Improve water and sewer capacity by constructing a two-million-gallon storage tank.
Keansburg Borough	Action 23-17	Replace Pressure Filter in Water Plant	Improve stormwater and sewer systems and reduce flooding by replacing the pressure filter in water plant.
Keansburg Borough	Action 23-18	Purchase a New Sweeper Vac	Purchase one new sweeper vac to maintain streets and keep debris from entering stormwater and sewer pipes.
Keansburg Borough	Action 23-19	Purchase New Wave Runners	Purchase two new wave runners to improve emergency water rescue response.
Keansburg Borough	Action 23-20	Purchase Two New Trucks for Water/Sewer Department	Purchase two new trucks for the Water/Sewer Department to assist with ongoing Water/Sewer maintenance.
Keansburg Borough	Action 23-21	Purchase Three New Department of Public Works Trucks	Purchase three new DPW trucks to assist with ongoing maintenance and continuity of operations within the Borough.
Keansburg Borough	Action 23-22	Update Winter Storm Response Plan	Update Winter Storm Response Plan to incorporate all current aspects of recent changes throughout the Borough. Inclusive of but not limited to the relocation of Police Headquarters, adding new facilities and/or structures erected since the last update.
Keyport Borough	Action 24-1	Extend Beach Park Pipe Past Division Street	Extend the Beach Park pipe discharging Division Street to prevent flooding due to obstruction of the pipe.
Keyport Borough	Action 24-3	Develop Storm Debris Dumpster Storage Plan	Develop a regional approach to storm debris dumpster storage.
Keyport Borough	Action 24-4	Purchase and Install Generators at Pump Stations	Install generators to ensure proper performance of the sewer pumps in the event of power outage
Lake Como Borough	Action 25-1	Construct a New Outfall Pipe and Pump at Lake Como to Allow Water to be Released to the Ocean	Lake Como, Spring Lake, and Belmar are seeking remedies to prevent flooding. Currently implementing a solution to reduce the amount of water in the lake prior to heavy rain events. The outfall pipe and area for pumps has to be designed to allow water to b
Lake Como Borough	Action 25-2	Improve Water System	Lining project and replacement to upgrade the distribution of water system.
Lake Como Borough	Action 25-3	Purchase and Install Generator for OEM Central Command Center - Borough Hall	Loss of power is possible during hazard events including flooding, surge, extreme wind, hurricane and tropical storm, nor'easter, extreme temperatures, and lightning. OEM Central Command Center - Borough Hall lacks backup power.
Little Silver Borough	Action 26-1	Improve Communications between Police Officers	New internet provider (ISP) for police/Borough communications to enable responders to communicate with each other and community members.

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Municipality	Completed Action #	Completed Action Name	Completed Action Description
Manalapan Township	Action 29-1	Acquire Flood-prone Properties Along Birmingham Drive	Purchase properties along Birmingham Drive for the purposes of removing the structures which are located in Pine Brook Floodplain.
Manasquan Borough	Action 30-1	Complete the Borough Risk Assessment for Structures, Facilities, and Equipment in the Borough	Conduct a hazard-specific, community-wide risk assessment of all structures, facilities, and equipment and identify, map, quantify, and rank vulnerable structures for each of the hazards. This will include identifying and mapping high hazard areas for each hazard addressed. This will also include inventorying and evaluating existing at-risk housing stock, commercial buildings, as well as public facilities and equipment and assessing each for vulnerabilities to each hazard addressed. The action will be a more detailed presentation and assessment of data from what is in the HMP.
Manasquan Borough	Action 30-2	Establish Funding Mechanism for HMP	Establish a permanent funding mechanism and budget for hazard mitigation planning and mitigation actions.
Manasquan Borough	Action 30-3	Continue Monitoring the Implementation of the Hazard Mitigation Plan	Monitor the implementation of the hazard mitigation plan and make updates to the plan as required. This includes forming a plan implementation steering committee to monitor progress on local mitigation actions as well as implementation monitoring schedule and outlining responsibilities.
Manasquan Borough	Action 30-4	Continue Monitoring the Implementation of the Hazard Mitigation Plan	Implement a comprehensive program for public information that systematically distributes hazard awareness information as well as actions that citizens can take to mitigate those hazards. The program will also promote household disaster preparedness as well as private mitigation efforts. The program will include the formation of a public information steering committee and will include specific public outreach goals, responsibilities, and monitoring.
Manasquan Borough	Action 30-5	Increase Public Warning Capabilities	Increase public warning capabilities through the implementation of FEMA developed IPAWS alerting, upgrade warning siren coverage, implement a Reverse911 system, upgrade electronic warning sign system coverage, and improve use of web-based programs and social media for public warning.
Manasquan Borough	Action 30-6	Provide Lightning Protection for Critical Facilities	This action item will include conducting lightning protection of these structures based upon rank (most vulnerable) and importance (most critical). This will include installing lightning protection devices and methods, such as lightning rods and grounding, on communications infrastructure and other critical facilities, as well as installing and maintaining surge protection on critical electronic equipment.
Manasquan Borough	Action 30-8	Restore Natural Buffers to Mitigate Flooding Borough-Wide	Provide natural resource restoration to existing dunes, salt marshes, coastal wetlands, maritime forests, stream corridors and natural floodplains in order to enhance natural buffers and flood mitigation. This will include developing a comprehensive approach that combines dune, maritime forest, coastal wetlands, salt marsh, and stream corridor restoration with potential flood mitigation opportunities and integrated high-water controls in order to reduce both riverine and tidal flooding and protect against sea level rise. The project will restore over 60-acres of coastal wetlands and maritime forest and 6-miles of stream corridors.
Manasquan Borough	Action 30-12	Restore Natural Buffers to Mitigate Flooding Borough-Wide	Provide natural resource restoration to existing dunes, salt marshes, coastal wetlands, maritime forests, stream corridors and natural floodplains in order to enhance natural buffers and flood mitigation. This will include developing a comprehensive approach that combines dune, maritime forest, coastal wetlands, salt marsh, and stream corridor restoration with potential flood mitigation opportunities and integrated high-water controls in order to reduce both riverine and tidal flooding and protect against sea level rise. The project will restore over 60-acres of coastal wetlands and maritime forest and 6-miles of stream corridors.
Matawan Borough	Action 32-1	Provide Auxiliary Power to the Matawan Municipal Community Center/Borough Hall	Provide auxiliary power to the Matawan Municipal Community Center-Borough Hall (201 Broad Street), to allow for continuity of government operations and public access to the Municipal Complex during a sustained loss of power. Having auxiliary power would also facilitate the use of the complex as a temporary shelter or warming/charging station during a declared state of emergency.
Middletown Township	Action 33-1	Provide for Continuity of Operations by Elevating Generators and Switches at Fire Stations	Elevate generators and switches at all fire stations located in the flood hazard area.

Municipality	Completed Action #	Completed Action Name	Completed Action Description
Middletown Township	Action 33-2	Build Upland Dune Restoration Install Wave-attenuating Oyster Reefs to Protect the Leonardo Neighborhood from Flooding	This action proposes marsh restoration bordered to the west by a maritime forest berm to provide a buffer to Normandy Road and neighboring properties. Upland dune restoration landward of the replenished beach, along with the expansion of the wave-attenuating oyster reefs within the NWS Earle Security Zone could serve as nature-based solutions to mitigate flooding and storm.
Middletown Township	Action 33-3	Create a Plan to Define Steep Slope/ High-risk Areas to Manage Development in Landslide Areas	Create a plan to implement reinforcement measures in Landslide Township Municipal budget 3 years new high-risk areas.
Middletown Township	Action 33-4	Develop a Microgrid Feasibility Study (2017)	In August 2020, Middletown Township was awarded a \$150,000 grant from the New Jersey Board of Public Utilities to hire experts to conduct an initial study to determine a cost-effective configuration that will allow the Township to use local resources to power critical facilities, especially during times of emergency.
Middletown Township	Action 33-5	Increase the Number of Drones and Provide Drone Training	More drones and drone training for police officers. Two officers have completed the training already.
Millstone Township	Action 34-1	Complete Millstone Road Program	Millstone Road milled and paved, improve drainage structures arterial road.
Monmouth Beach Borough	Action 35-4	Elevate Evacuation Roadways	Elevate the following roadways (listed in order of importance): (1) Patton Ave, (2) Riverdale, (3) Meadow Ave, and (4) North Rd.
Monmouth Beach Borough	Action 35-5	Develop a Civil Unrest Response Plan and Preparation	Improve ability to respond to a civil unrest event by purchasing shields, helmets and riot gear.
Monmouth Beach Borough	Action 35-6	Develop an Action plan to Address Pandemic Event Action	Emergency Response to address pandemic event.
Monmouth Beach Borough	Action 35-7	Develop an Action plan to Address Power Failure	Action plan to address and respond to power failure events and install a generator at Monmouth Beach Elementary School
Monmouth Beach Borough	Action 35-8	Develop a Terrorism Response Plan	Emergency Response to Terroristic Threat
Neptune Township	Action 36-1	Purchase and Install a Generator at North Island Pump Station	Create elevated platform for new emergency generator to service pump station.
Neptune Township	Action 36-3	Purchase and Install Generators for Critical Infrastructure	Generators for stormwater pumps and at the Township EOC center.
Neptune Township	Action 36-5	Retrofit Pump stations with Watertight Doors and/or Windows	Retrofit existing pump stations in flood zones with watertight doors and/or windows.
Neptune City Borough	Action 37-01	Increase Piping Capacity and Reduce Sediment/Debris within Watershed	The Borough improves their stormwater system every year with their yearly roadway program. Develop mitigation steps to reduce damage and losses due to flooding through control of stormwater runoff and more efficient drainage and discharge to Shark River.
Neptune City Borough	Action 37-02	Purchase and Install Generators at Borough Hall, the Fire Station, and the School	To maintain police, fire, and medical service throughout the municipality, the Borough seeks to provide temporary power for Borough Hall, the Fire Station, and the School. The Office of Emergency Management and a Central Command is within Borough Hall.
Neptune City Borough	Action 37-03	Elevate and Waterproof Sewer Pump Station	Elevate the sewer pumps within the building and to waterproof the building to mitigate any future damage.

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Municipality	Completed Action #	Completed Action Name	Completed Action Description
Ocean Township	Action 38-4	Purchase and Install Generators for Other Critical Facilities	Acquire emergency generators for critical facilities, including the gym, high school, recreation center, and elementary school.
Rumson Borough	Action 42-1	Upgrade Supervisory Control and Data Acquisition (SCADA) System to Control and Monitor Critical	Upgrade SCADA system to more efficiently and effectively control and monitor critical facilities.
Sea Girt Borough	Action 44-1	Extend Outflow Pipe	Extend the outflow pipe past the Mean High Tide Mark into the ocean and raise to an elevation as to not clog with sand.
Sea Girt Borough	Action 44-2	Install New Alert Horn and Siren System	Improve the notification to residents by the addition of and installation of a new generation electronic horn and public address system. Our neighboring town Manasquan Borough has this system stationed throughout its town and is able to not only alert the
Sea Girt Borough	Action 44-3	Reopen Wreck Pond	Reopen the east end of the pond to allow for flow between Wreck Pond and the Atlantic Ocean.
Sea Girt Borough	Action 44-4	Dredge Wreck Pond	Continue to work with DEP, Spring Lake, Spring Lake Heights, Wall Borough, and Monmouth County to bring the project to completion.
Sea Girt Borough	Action 44-5	Repair of Neptune Place pipe, addressing beach sinkholes.	Repair of outflow pipe at Neptune Place, in Spring 2024 causing beach sinkholes and subsidence. 780 cubic yards of beach were replenished.
Shrewsbury Borough	Action 45-1	Upgrade Drainage System and De-snag and Clean the Little Silver Creek	Replacement and upgrade of stormwater drainage infrastructure, stream clearing, and desnagging of Little Silver Creek.
Spring Lake Borough	Action 47-01	Install Wreck Pond-Sluice Gate	The installation of sluice gates on the existing Wreck Pond outlet control structure. Prior to a major storm event, the gates would be closed to prevent flooding.
Spring Lake Borough	Action 47-02	Dredge Wreck Pond: Phase III and Remove Dredge Materials from Wreck Pond to Another Location	The dredging will result in the removal of approximately 20,000 cubic yards of material. Work will be performed by Monmouth County as a shared service. Materials dredged from the middle of the pond cannot be reused on the beach and must be trucked out.
Spring Lake Borough	Action 47-03	Reconstruct the Sand Dune at Pier Beach	Reconstruct the 20-foot-high mature sand dune for protection from tidal flooding and will provide a buffer against wave action and over-wash.
Spring Lake Borough	Action 47-04	Bypass Culvert from the Emergency Spillway to Ocean	Install an additional outflow pipe from Wreck Pond to the Atlantic Ocean. Project will double the current outflow capacity of the Pond during a heavy rainfall event.
Spring Lake Borough	Action 47-05	Enact Lake Como Outflow Reconstruction Project	Project will consist of construction of new outfall structure(s) from Lake Como to Ocean.
Spring Lake Borough	Action 47-07	Purchase and Install Generators for Critical Facilities	Generators for Borough Hall, HW Mountz School, recreation center, and the fire house/first aid station.
Spring Lake Heights Borough	Action 48-1	Hazard Zoning & High-Risk Hazard Land Use Ordinances	Revise zoning ordinance to address development in hazardous areas and also implement changes in design requirements to develop structures that are flood resilient. Introduce and adopt development ordinances which require compliance with new base flood elevation, mandatory flood proofing, and other similar measures.
Spring Lake Heights Borough	Action 48-2	Increase Education and Risk Awareness	Public outreach includes discussion and handouts at Municipal Council meetings or other publicly supported events and meetings.
Spring Lake Heights Borough	Action 48-3	Provide Protection from Tidal Flooding	Continue to implement mitigation practices such as development regulations and enforcement of mitigation practices in flood prone areas. Enforce zoning ordinances which restrict development in hazardous areas and also implement changes in design requirements to develop structures that are flood resilient.

Municipality	Completed Action #	Completed Action Name	Completed Action Description
Spring Lake Heights Borough	Action 48-4	Elevate and Secure Pump Stations	The Black Creek Pump Station is located at the south end of Sixth Avenue along the northern bank of the North Branch of Wreck Pond. The elevation of this pump station does not meet the recommended freeboard. The Shore Road Pump Station is located along the north shore of Wreck Pond. The elevation of this pump station is below the 100-year flood elevation.
Spring Lake Heights Borough	Action 48-5	Elevate or Retrofit of Existing Utilities above the BFE	Raise existing utilities above expected flood levels to reduce flood damage. The utility improvements include the elevating of outdoor HVAC equipment, relocation of overhead electrical services to underground conduit and weather proofing of these services as required.
Union Beach Borough	Action 50-1	Elevate Spruce Street, Center Street, and Fifth Street	Raising the elevation of the roadway to decrease the occurrence and severity of flooding in the area.
Union Beach Borough	Action 50-2	Elevate Florence Ave.	Raising the elevation of the roadway to decrease the occurrence and severity of flooding in the area.
Union Beach Borough	Action 50-3	Elevate Park Avenue	Elevate Park Avenue to keep roadway clear from flooding.
Upper Freehold Township	Action 51-1	Continue to Provide Hazard Education and Risk Awareness	Ongoing development of education materials for distribution on the Township website and the OEM Facebook portal as well as print materials. Emergency notifications will be made as necessary via the Township's emergency notification system.
Upper Freehold Township	Action 51-2	Improve Drainage System Capacity	Seasonal cleanup of culverts, roadside water management ditches, and drainage basins in flood prone areas.
Wall Township	Action 52-1	Install Natural Gas Generators at Critical Facilities	Aim to equip all critical facilities used by the Township in hazard events (for resources, staging, emergency response, shelter) with natural gas generators.
Wall Township	Action 52-2	Purchase and Install Emergency Power to Critical Facilities	Upgrade and install emergency power to the Wall Township Police Department, Wall Township Office of Emergency Management Emergency Operation Center, Wall Township Municipal Building, Water Treatment Plants, and Wastewater Pump Stations.
West Long Branch Borough	Action 53-2	Target Harden Critical Facilities by Installing Surveillance Cameras and Backup Servers	Harden the Municipal Building and DPW Yard with stronger security (cameras) and possibly relocate backup servers to a more secure location.

6.6 COUNTY MITIGATION STRATEGY

The Planning Team met with Monmouth County departments that had mitigation actions in the previous plan – or had new mitigation actions to include in this plan update, in January and February of 2025. Those County departments include the Division of Planning, Public Works & Engineering, Park System, OEM, and Buildings and Grounds. In addition to the County departments, the Project Team met with regional stakeholders to see if there were mitigation actions they wanted to include in this plan update. Regional stakeholder mitigation actions are included in this section as well as the County actions.

Completed or Removed Actions

Table 6.6-1 Monmouth County Completed or Removed Mitigation Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 1	Protect and Restore Claypit Creek and Portland Place	Re-establish, restore, and stabilize the eroded bluff and establish a living shoreline at the river edge to further provide protection of the slope to future storm events as well as provide and enhance habitat for fish and wildlife.	Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Monmouth County Park System	FEMA HMA, County Capital	\$720,000	2 years	Completed	<p>For the Hartshorne Woods Park – Claypit Creek Area Shoreline stabilization project, shoreline plantings were installed in front of bulkhead of Claypit Creek. This included high and low marsh plantings and a special seed mix. The bulkhead was taken down to elevation 1 to allow flow behind it in order to do a living shoreline project. HMA funded it. The project was completed in 2017 for \$70,867.50.</p> <p>At Portland Place, a new basket revetment system was installed. It was funded by County Capital and cost \$720,000. It was completed in 2020.</p> <p>Both projects are complete, although there is monitoring, replanting, and control of the phragmites in front. This is funded through the capital budget.</p>
Action 2	Elevate Highway District #8 Office in Hazlet	The office building and garage at Highway District #8, in the Township of Hazlet, is prone to flooding. This project is for the design and reconstruction of the building and garage at a higher elevation to ensure the continuity of services during a disaster or crisis.	Flood, Nor'easter, Hurricane and Tropical Storm	Medium	Monmouth County Public Works & Engineering	FEMA HMA	\$600,000	2 years	Completed	

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 3	Repair, Remove, or Rehabilitate the Allentown Dam	Repair, remove, or rehabilitate Allentown Dam, a High-Hazard Potential Dam, located along Doctors Creek.	Dam Failure	High	Allentown Borough	County budget, NJDEP Bureau of Dam Safety and Flood Control	\$0.00	3 years	Withdrawn	Withdrawn due to the dam recently being upgraded and requires more ongoing maintenance than a remodel. Also the Borough of Allentown owns this dam now.
Action 4	Replace or Elevate County Bridges and Culverts	Projects may include the replacement of a County bridge or culvert and/or elevating the approach roadway above the flood elevation or to accommodate the new bridge structure. Project locations include, but are not limited to, the following: County Bridge H-5 H-5A, Palmer Ave (CR 7), Holmdel Middletown; County Bridge MA-11, Aberdeen Road, Matawan; County Bridges ML-17, ML-18, ML-19, Station Rd., Marlboro; County Bridge R-5, Florence Ave (CR 39), Union Beach; Union Ave (CR 39), Union Beach.	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Monmouth County Department of Public Works & Engineering	FEMA HMA, NJDOT		3 years	Withdrawn	Combined with new Action 67.

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Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 5	Inspect and Maintain the Structural Integrity of County Infrastructure	Hard armoring of creek and riverbanks and shorelines is not always possible or desirable. In most areas of the County, the only way to mitigate the results of flooding is to anticipate for, maintain, and provide efforts to recover after an extreme event. Thus, it is essential to inspect and maintain the structural integrity of County infrastructure and to perform activities to remove debris and sediment that may negatively affect the flow of surface water in and around this infrastructure. This includes activities such as removing debris from underneath low-lying bridges and culverts, clearing sediment build-up, or repairing embankment erosion on riverbanks near County infrastructure. Also, repairing and cleaning stormwater drains and other drainage systems.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm	Medium	Monmouth County Department of Public Works & Engineering and local municipalities.	County budget		2 years	Withdrawn	Combined with new Action 67.

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 6	Install Hard-armorings on County Bridges that Experience Coastal Erosion	Due to the location of coastal bridges, the substructure is highly susceptible to scour and the effects of waves, tides, and storm surges. Installing hard armorings (i.e. rip rap, jetty stone, and/or steel sheeting) would mitigate this coastal erosion that jeopardizes County bridges and the roads they carry. One such bridge is Monmouth County Bridge W- 43 over the Shark River in the Boroughs of Avon-by-the-Sea and Belmar. Bridge W-43 carries Ocean Ave. (CR 18). Other potential bridges include but are not limited to; S-31 (Middletown, Rumson), 5-32 (Rumson, Sea Bright), and W-9 (Brielle, Manasquan).	Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Monmouth County Department of Public Works & Engineering	FEMA HMA		2 years	Withdrawn	Combined with new Action 67.
Action 7	Repair, Remove, or Rehabilitate the Lake Topanemus Dam in Freehold Township	Repair, remove, or rehabilitate Lake Topanemus Dam, a High-Hazard Potential Dam, located along McGellaird's Brook.	Dam Failure	N/A	Monmouth County, owns dam	County budget, NJDEP Bureau of Dam Safety and Flood Control		N/A	Completed	This dam has been rehabilitated. By court order, Freehold Township and Borough are responsible for maintenance. The NJDEP has deemed the dam to be co-owned by the County, the Freehold Borough, and Freehold Township.

New and Ongoing Actions

Table 6.6-2 Monmouth County Ongoing and New Mitigation Actions

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 8	Provide Assistance to the National Flood Insurance Program's (NFIP) Community Rating System (CRS) Program	Provide technical and professional assistance to local municipalities for their engagement and advancement in the NFIP CRS program. Assistance includes hazard mitigation planning, community outreach, public information, flood protection information, mapping assistance, grant management, and floodplain regulation consultations.	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Monmouth County Division of Planning and OEM	Dedicated staff time, FMA, other State funds	\$100,000 per year	5 + years	Ongoing	See Section 5.0 Capability Assessment for more information on the County's CRS Assistance Program. The County also helps with mapping services for wildlife species in the floodplain.
Action 9	Support Municipal Floodplain Management Planning	Assist municipalities in identifying and executing floodplain management activities that improve flood hazard mitigation, community resiliency, and recovery from storm events. Expand understanding, capabilities, and expertise in floodplain management. Monmouth County staff members would welcome more advanced training and certifications in areas such as floodplain management strategies and land use development in the SFHA. Training and certification would be necessary to provide resource support to reduce these costs and bridge the planning gap.	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Monmouth County Division of Planning and OEM	Dedicated staff time, FEMA HMA	\$25,000 per year	5 + years	Ongoing	The County coordinates with New Jersey Department of Environmental Protection (DEP) and NFIP on floodplain trainings, provides courtesy reviews of stormwater control ordinances and stormwater management plans in accordance with DEP.
Action 10	Expand Online Mapping Services	Many municipalities rely on GIS assistance from Monmouth County. This system can be improved to provide municipal access with online services. This requires new software and/or software licenses, hardware and equipment, data updates, and upgrades as well as investments in the existing technology infrastructure. This system would also allow the public to access GIS information and customize maps showing risks to their property	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Monmouth County Division of Planning, OEM, Division of GIS	Dedicated staff time, FEMA HMA	\$50,000 per year	5 + years	Ongoing	The County has a self-service GIS flood mapper, FEMA maps posted on the County website, contracts Forerunner, and promotes Know your Zone.

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		and community. It also ties back to CRS mapping requirements as well as to information used in the development of local master plans, planning, hazard response, community outreach, public information, flood information, mapping, municipal training, and CRS Support. Support development of interactive, online mapping services for public use provides municipalities with technical assistance and training, improves inhouse GIS system network, provides mapping and analysis services to CRS engaged communities, and enhances information assimilation and distribution.								
Action 11	Acquire Flood-prone Properties, especially Repetitive Loss and Severe Repetitive Loss Properties	To create a County-wide public open space system that will help meet park and recreation needs and conserve vital natural resources, the Monmouth County Park System will continue to acquire properties within project areas designated in the Monmouth County Open Space Plan (2019). Properties subject to flooding, severe winter weather, and associated storm surges are considered for purchase to meet the goals of the Monmouth County Open Space Plan. By purchasing these properties, any buildings located in the flood zone are removed and the land is restored to a natural condition.	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge, Winter Storm	High	Monmouth County Park System	FEMA HMA, NFIF grant	\$100M	5 + years	Ongoing	This action is ongoing. The Park System continues to purchase properties across the County. Since 2019, it has acquired 27 properties totaling 326 acres. The Open Space Plan is dated 2019. The County hopes to do an update or amendment in 2025.
Action 12	Improve Coastal Dune System, Maritime Forests, and Near-Coastal Habitats	Regrade sand fencing to establish dune topography and increase vegetation management to establish native coastal vegetation adapted to coastal hazard and slopes for Fisherman's Cove Conservation Area, Seven Presidents Oceanfront Park, Henry Hudson Trail at Popamora Point, and Bayshore Waterfront Park. Restore a pond area	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Monmouth County Park System, US Fish & Wildlife Service, NOAA, FEMA, HRERP	NJCWRP, FEMA HMA, NFWF, Acres for America, NOAA, US FWS EPA, NJDOT	\$1.4M	3 years	Ongoing	This action is ongoing. An invasive removal project as well as a wildlife conservation project at Seven Presidents were performed to get vegetation back into native cover. Dredging

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		and hydroseeded a large field area that was previously a parking lot to establish a coastal habitat there.								was completed at Fisherman's Cove. Old parking lot was converted to field and pond area to establish coastal habitat.
Action 13	Install Stream Bank Stabilization Techniques for the Ramanessin Brook, Pine Brook, and Manasquan River	A proposal has been in the planning phase for many years to reintroduce stream form and function in the upper reaches of the watershed where extensive straightening occurred in the past. This will result in more stream stability and improved water quality	Flood, Nor'easter, Hurricane and Tropical Storm	Medium	Monmouth County Park System	FEMA HMA, County budget	\$2.3M	2 years	Ongoing	A J Hook was installed in Ramanessin Brook, and the stream bank was redone. This is tied into upgrades to the detention basins; the traditional basins were turned into swales with best management practices.
Action 14	Conduct Scheduled Burning and Mechanical Thinning at 3 County Parks	Conduct scheduled burning and mechanical thinning at Fisherman's Cove Conservation Area (Manasquan), Turkey Swamp Park (Freehold Twp.), and Bayshore Waterfront Park (Middletown Twp).	Wildfire	Medium	Monmouth County Park System	County budget	\$55,000	1 year	Ongoing	No scheduled burning has been done since 2017 because of the liability language of State Forest Fire. The Park System is in active conversations with the County Administration regarding this. The Park System is controlling the phragmites at Fisherman's Cove through mechanical thinning. At Turkey Swamp Park there is a bid out to remove the invasive shrubs there to reduce fire hazard. At Bayshore, invasives have been removed

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
										using hand tools and non-mechanical methods. All funding comes from the County budget.
Action 15	Implement Slope Stabilization Techniques Along the Henry Hudson Shoreline	A one-mile segment of the coastal trail will be the target area of this project. Various living shoreline techniques and wave attenuation structures will be investigated to find the "best fit" approach that will be permittable, economic, and supported by adjacent residents. Additional work of stabilization of the slope will also be investigated that will replant or restore the slope for adjacent public owned properties.	Flood, Wave Action, Landslide Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Monmouth County Park System	FEMA HMA, NJDEP Blue Acres, EPA, NOAA, NFWF	\$20M	3 years	Ongoing	The Park System is looking to implement several techniques in the area and is at the phase of applying for funding.
Action 16	Improve County Evacuation Preparations	Improve the physical (signage, striping, conversion of traffic signals to LED) and operational preparation (identifying severe inundation zones as priority areas) to place first responders at key intersections and check points and coordinate of highway advisory radio. This is in addition to Long Term Improvements (widening and elevating of roads and bridges) of the County Evacuation Routes, as documented in the 2009 Monmouth County Coastal Evacuation Routes Improvement Study. This study provided a transportation system condition and assessment of 12 Portal Evacuation Routes within the County. Some targeted improvements based on the recommendations would likely result in substantial benefits on roadway capacity, balancing travel demand and safety along the overall length of each portal route. Physical	All Hazards	Medium	Monmouth County Department of Public Works & Engineering and Monmouth County Planning Division	County budget	\$20M	5 + years	Ongoing	No update.

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Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		and operational preparations would be in addition to promoting Monmouth County's Know Your Zone initiative.								
Action 17	Increase Hazard Education and Risk Awareness at the County Level	Delivering preparedness education and community outreach on programs geared towards preparedness and small-scale mitigation efforts. This action will be the delivering of preparedness education in the form of mitigation seminars discussing mitigation options (i.e. flood vents, wet and dry floodproofing, elevation of utilities). The action will involve community focus meetings targeting the most at-risk communities and working through each area of the County.	All Hazards	High	Monmouth County OEM	County budget	\$582,000	5 + years	Ongoing	<ol style="list-style-type: none"> Seniors and students take programs on readiness measures. The cost is \$62 per person, and 250 seniors and 85 students have taken it. Ready, Go, Bag – About 3,000 people per year are involved in this. <p>CERT has 55 active volunteers.</p>
Action 18	Provide Building Retrofits for the County Evacuation Centers	Provide building retrofits with hurricane-proof glass and storm shutters for the exterior windows and any applicable doors.	Extreme Wind, Nor'easter, Hurricane and Tropical Storm	Medium	Monmouth County OEM	FEMA HMA	\$1M	1 year	Ongoing	No progress. The Park System noted that Fort Monmouth is a shelter but does not have all of these retrofits. OEM said that Biotech needs another new generator (A 600kW one was obtained.). The Police Academy needs HVAC upgrades and a generator for the full facility. The water and plumbing are dated. This may cost \$400,000. A facilities management transfer switch would cost around \$500,000.

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 19	Create a Repetitive Loss (RL) and Severe Repetitive Loss (SRL) Bundle Project	Create a project that groups together RL and SRL Properties and then the County and NJOEM apply for a regional level mitigation project.	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge, Winter Storm	High	NJOEM	NJOEM	TBD	2 years	Ongoing	NJOEM is prioritizing elevation bundles of RL/SRL properties. The County supports this project.
Action 20	Improve Financial Management of Grant Monies	Hire new staff or rearrange existing staff's responsibilities to improve financial management of grant monies allotted to the County.	All Hazards	Medium	Division of Shared Services and Finance	DCA	\$100,000 per year	5+ years	Ongoing	The County would like to hire a grant writer.
Action 21	Create 3D digital Elevation Models of Structures and Infrastructure within the 500-year Flood Zones	Use mobile LiDAR Technology to create current 3D digital elevation models of all homes, businesses and infrastructure within Monmouth County coastal communities located within the 500-year flood zones. This project will collect digital images and develop models that provide an accurate assessment of flood damages that have been incurred by residents, businesses, and infrastructure because of specific past events. Additional information to be included within each property /parcels data set will be first floor elevations of mitigated properties, affixing property elevation certificates, NFIP information and creating an ArcGIS online web application for viewing. In addition, the project will overlay FIRM data on the first-floor elevation data to help identify which buildings and infrastructure are at future risk of flooding. All in the effort of building smarter more efficient ways of working towards greater resiliency. This also enhances various components of CRS program.	Flood, Nor'easter, Hurricane and Tropical Storm	Medium	Monmouth County OEM	County budget	\$250,000	2 years	Ongoing	Rutgers University is doing this in Ocean County; Monmouth County is also interested in it.

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Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 22	Strengthen Damage Assessment Teams	Monmouth County has established regional Damage Assessment Teams that are comprised of the Building and Construction Officials from within the municipal jurisdictions. This action is focused on increasing the training, exercising and further implementation costs associated with this program. The overall intent is to provide team members with the requisite FEMA training for accurately assessing damaged properties, appropriate personal protective equipment, a cache of tablets for utilizing ESRI ARCGIS web-based assessment tool and the required storage and sever capacity to maintain data.	All Hazards	Medium	CERT Team	County budget	\$56,000	2 years	Ongoing	
Action 23	Assist the NJ State Council for the Arts, NJ Cultural Alliance for Response (NJCAR), and Monmouth Arts in Improving Disaster Preparedness and Response for Arts, Cultural and Historic Buildings, Structures, and Institutions.	Prepare an action plan for arts organizations that support post disaster programs that support individual's emotional well-being, community engagement, assists with conflict resolution, and improve public health by channeling post-traumatic stress and anxiety into creative and productive community outcomes. Identify which cultural assets are threatened by storm surge; severe flooding, and/or sea level rise.	All Hazards	Low	New Jersey State Council for the Arts, NJCAR, and Monmouth Arts	County budget	TBD	2 years	Ongoing	Monmouth Arts has done outreach funded through DEP and NOAA Hazard Risk Communications "community-based arts grant"
Action 24	During Non-emergency Events, Continue to Support and Strengthen the Relationships between Government	Continue to build their capacity to respond to acute and chronic post-emergency situations as well as improve means of providing redundant support, coordination, and communications in times of need.	All Hazards	Low	Monmouth County OEM	Robin Hood Foundation , County budget	TBD	5 + years	Ongoing	2026 update: In response to major storms, reactive the Long-term Recovery Group.

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
	Agencies, Non-profits Organizations, and Volunteers that are Community Partners in the County's Long-Term Recovery Group									
Action 25	Work with State Agencies to Update Regional Risk Maps for Risks that Extend Past the County Boundary	Work with State agencies to update regional risk maps, such as dam inundation flood limit maps.	Dam Failure	High	Monmouth County	County budget	Staff time	3 years	Ongoing	County OEM obtained updates on each of its dams from NJDEP after the April 2024 earthquake. Now it is putting this data into incident management system maps.
Action 26	Coordinate with the Monmouth County Chamber of Commerce to Improve Business Response Post Disaster	Work with the Chamber of Commerce to improve business response to disruption and preparedness from disasters.	All Hazards	Low	Monmouth County, Monmouth Regional Chamber of Commerce	County budget	Staff time	3 years	Ongoing	No update
Action 27	Purchase and Install Generators at County Highway District Facilities	Purchase and install permanent emergency generators at critical County Highway District facilities and the County Complex, which houses the administration buildings of the Department of Public Works & Engineering (including Bridge, Highway, and Traffic Safety Sections) which ensure the continuity of services during a disaster or crisis. The Highway Districts and Department of Public Works & Engineering maintain and repair approximately 1,000 miles of County roadways and nearly 1,000 bridges and culverts, as well as the associated traffic	All Hazards	Medium	Monmouth County Department of Public Works & Engineering	FEMA HMA, County budget	\$2,000,000.00	1 year	Ongoing	The generators at the Thompson Park headquarters were funded with County capital and cost \$152,000. The Hall of Records and Human Services should have continuity of operations.

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Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		signals and signs. Many roads and bridges are also considered critical infrastructure, particularly those providing ingress and egress for evacuees and those allowing emergency vehicles access to those in need. These roads are located in areas vulnerable to storm surge and inundation.								
Action 28	Rehabilitate, Upgrade, or Decommission Dams to Meet Current NJDEP Bureau of Dam Safety Standards.	Rehabilitate and upgrade dams to meet current NJDEP Bureau of Dam Safety Standards for spillway, embankment, low level outlet structure downstream channel improvements. Replace the adjoining County-owned bridge raise the roadway profile to address the issue associated with a potential dam failure or improve passage during flood events. Project locations include, but are not limited to, the following: 1) Lake Lefferts Dam, County Bridge MA-9, Ravine Dr. (CR 6A), Matawan (design ongoing); 2) Matawan Lake Dam, County Bridge MA-13, Main St. (CR 516), Matawan (design ongoing); 3) Perrineville Dam, County Bridge MS-48, Perrineville Rd. (CR 1), Millstone (design ongoing); 4) Shadow Lake Dam, County Bridges MT - 30 MT-45, Hubbard Ave. (CR 12), Middletown (preliminary studies ongoing); 5) Indian Dam, County Bridge U-18, Church St. (CR 526), Allentown (inspection and preliminary studies ongoing); 6) Hurley Pond Dam, County Bridge W18, Allenwood Rd., Wall (H&H complete); 7) County Bridge MN-4, Millstone; and (8) Englishtown Lake Dam, County Bridge MN-33, Main Street, (CR 527), Englishtown (H&H and alternative analysis complete).	Dam Failure, Flood, Nor'easter, Hurricane and Tropical Storm	High	Monmouth County Department of Public Works & Engineering; Monmouth County Park System	FEMA HMA, NJDEP Bureau of Dam Safety and Flood Control, FEMA's High-Hazard Potential Dam Grant Program	More than \$2,000,000.00	3 - 5 years	Ongoing	The Perrineville Dam, owned by the Park System, is a Class II Significant Hazard Dam. The Park System is actively working on a project with County Engineering to bring the dam into compliance as well as to improve the County bridge. Lake Lefferts should be done by Summer 2025. The bridge and dam will be advertised late spring/early summer 2025 and under construction by the end of the year.

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		Decommission Red Valley Dam and repair or rehabilitate County Bridge U-1, Trenton - Lakewood Rd. (CR 526), Upper Freehold. Preliminary studies are ongoing.								
Action 29	Replace or Elevate County Bridges and Culverts	Projects may include the replacement of a County bridge or culvert and/or elevating the approach roadway above the flood elevation or to accommodate the new bridge structure. Project locations include, but are not limited to, the following: County Bridge H-5 H-5A, Palmer Ave (CR 7), Holmdel Middletown; County Bridge MA-11, Aberdeen Road, Matawan; County Bridges ML-17, ML-18, ML-19, Station Rd., Marlboro; County Bridge R-5, Florence Ave (CR 39), Union Beach; Union Ave (CR 39), Union Beach.	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Monmouth County Department of Public Works & Engineering	FEMA HMA, NJDOT		3 years	Ongoing	MA-11 is ongoing; it will be completed in August 2025 and allow for the Lake Lefferts dam. H5 and R5 are completed. Others are under design.
Action 30	Inspect and Maintain the Structural Integrity of County Infrastructure	Hard armoring of creek and riverbanks and shorelines is not always possible or desirable. In most areas of the County, the only way to mitigate the results of flooding is to anticipate for, maintain, and provide efforts to recover after an extreme event. Thus, it is essential to inspect and maintain the structural integrity of County infrastructure and to perform activities to remove debris and sediment that may negatively affect the flow of surface water in and around this infrastructure. This includes activities such as removing debris from underneath low-lying bridges and culverts, clearing sediment build-up, or repairing embankment erosion on riverbanks near County infrastructure. Also, repairing and cleaning stormwater drains and other drainage systems.	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm	Medium	Monmouth County Department of Public Works & Engineering and local municipalities	County budget		2 years	Ongoing	The Bridge department takes care of this.

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Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 31	Install Hard-armor on County Bridges that Experience Coastal Erosion	Due to the location of coastal bridges, the substructure is highly susceptible to scour and the effects of waves, tides, and storm surges. Installing hard armor (i.e. rip rap, jetty stone, and/or steel sheeting) would mitigate this coastal erosion that jeopardizes County bridges and the roads they carry. One such bridge is Monmouth County Bridge W- 43 over the Shark River in the Boroughs of Avon-by-the-Sea and Belmar. Bridge W-43 carries Ocean Ave. (CR 18). Other potential bridges include but are not limited to; S-31 (Middletown, Rumson), 5-32 (Rumson, Sea Bright), and W-9 (Brielle, Manasquan).	Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Monmouth County Department of Public Works & Engineering	FEMA HMA		2 years	Ongoing	Rumson Seabridge is under construction now. Nothing is done on W-9.
Action 32	Preserve Land within the Vicinity of NWS Earle	Purchase conservation/agricultural easements and open space in order to help create a buffer surrounding NWS Earle to further mission sustainment and maintain public health, safety, and welfare. Easements and open space also mitigate the risk of flooding and wildfire by preventing new development in hazardous areas.	Wildfire, Storm Surge, Flood, Nor'easter, Hurricane and Tropical Storm	High	County Planning Division, U.S. Navy, participating municipalities , Monmouth Conservation Foundation, County Park System	REPI Program, DEP Green Acres Program	\$25M	5+ years	New 2026	As of January 2025, the County has preserved two properties and are working on acquiring one more.
Action 33	Improve Safety for the Traveling Public	There is growing concern about roadway safety, particularly the increase in pedestrian fatalities. In 2024, Monmouth County reported 48 fatalities involving drivers, passengers, bicyclists, and pedestrians. To address this urgent issue, the County is developing a Safe Streets for All (SS4A) Action Plan. This initiative aims to create a comprehensive, data-driven, and community-focused strategy to identify and mitigate travel safety concerns. The intent is to implement	Public Roadway Safety-Transportation Accidents	High	Monmouth County Planning Division	Federal Highway Administration, Safe Streets for All (SS4A) Grant Program	TBD in the Action Plan	3 years	New 2026	

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		the plan's recommended safety enhancement projects and policy directives, resulting in a significant reduction or elimination of traffic-related fatalities and serious injuries.								
Action 34	Removing Barriers to Mobility	In 2024, the Monmouth County Division of Planning completed the Barriers to Mobility Study, known as Monmouth PATHS: Access for All. The study highlighted significant mobility and accessibility challenges faced by residents and visitors, along with strategies to enhance infrastructure, services, and policies to address these issues. Tackling these barriers is critical, as obstacles such as flooding, inadequate drainage, missing links in infrastructure critical to mobility such as sidewalks, or malfunctioning equipment can severely disrupt the movement of people and emergency services during crises. Removing these obstacles will lead to a safer, more equitable, and efficient transportation system, enabling faster response times for first responders and smoother evacuations, particularly for individuals who rely on walking, cycling, or public transit for mobility.	All Hazards	Medium	Monmouth County Planning Division	TBD	TBD in the Action Plan	5 years	New 2026	
Action 35	Reduce Human and Animal Conflicts on Roadways	In 2022, Monmouth County recorded 310 deer-vehicle collisions, the highest number of such incidents in the state. With shrinking habitats and a lack of natural predators, deer pose a significant threat to public safety on roadways. There is growing agreement that improved engineering techniques and design approaches could help	Public Roadway Safety/Transportation Accidents	Low	Monmouth County Planning Division, County Park System	TBD	TBD	5 years	New 2026	The County Park System conducted a Deer Management Plan in 2024.

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Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		mitigate these conflicts—not only with deer but also with other species that frequently intersect with human infrastructure. Reducing animal fatalities and minimizing conflicts with drivers requires a multifaceted approach, including driver awareness through signage, warning systems, and animal detection technologies; habitat conservation and land management; and infrastructure enhancements such as wildlife corridors, bridges, culverts, underpasses, tunnels, rope ladders, and similar solutions designed to facilitate safe wildlife movement and migration. Connecting Habitat Across New Jersey (CHANJ), an initiative by the NJDEP, aims to make landscapes and roadways more accessible for terrestrial wildlife by identifying critical areas and actions to achieve habitat connectivity across the state.								
Action 36	Obtain an Upgraded Generator for the Fire Academy	Obtain an upgraded generator to replace the current, outdated one. Connect it to the public utilities. The cost would be \$800,000 for water, \$150,000 for design, and \$800,000 for installation.	Power Failure	High	Monmouth County OEM	FEMA HMA	\$500M	2 years	New 2026	
Action 37	Install Fire Suppression in the County Courthouse and the Manalapan Western Branch Archives in case of a fire due to an act of terrorism	Install fire suppression in the west wing of the courthouse. At the moment, only the east wing has fire compression. Install fire suppression in the Manalapan Western Branch Archives. It holds the records for the County.	Terrorism	High	Monmouth County OEM	County budget, DHS	TBD	2 years	New 2026	

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 38	Upgrade the Cameras in Portions of the Monmouth County Courthouse, Public Safety Center, and Prosecutors Office	Upgrade the cameras in portions of the Monmouth County Courthouse, Public Safety Center, and Prosecutors Office	Terrorism	High	Monmouth County OEM	DHS	TBD	4 years	New 2026	
Action 39	Obtain Portable Water Pumps (12"), Portable Generators, And Portable HVAC Units (Trailers).	Obtain portable water pumps (12"), portable generators, and portable HVAC units (trailers) at the Prosecutors Office in Asbury Park, Linkages in Tinton Falls, the Community Center in Neptune, and OEM Building Facilities. The OEM Building Facilities need two more generators with a 400-foot cable and may cost \$400,000.	Power Failure	Medium	Monmouth County OEM	FEMA HMA, County budget	\$400k	4 years	New 2026	
Action 40	Enhancement/Upgrades to the Shrewsbury River Flood Warning System	Enhance and upgrade the Shrewsbury River Flood Warning System. Six sites currently have it. Eight sites total are needed.	Hurricane and Tropical Storm; Nor'easter; Flood; and Storm Surge	High	Monmouth County OEM, DOT, surrounding municipalities	NOAA, FEMA HMA	\$100k	2 years	New 2026	
Action 41	Generator and Transfer Switch to Fort Monmouth OEM Warehouses, MedStar HQ, SACC / Back Up EOC, and Radio Sites (13)	Oceanport, Long Branch, Little Silver, Sea Bright, Rumson, Monmouth Beach, Highlands. Replacement generators are \$150,000 each.	Power Failure	Medium	Monmouth County OEM	County budget, FEMA HMA	\$2M	4 years	New 2026	

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Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 42	Purchase and install a generator to Support COOP/COG 600KW+ with 400+ Ft Feeder cables	The County needs a large, portable generator to Support COOP/COG 600KW+ with 400+ Ft Feeder cables	Power Failure	Medium	Monmouth County OEM	County budget, FEMA HMA	\$2M	4 years	New 2026	
Action 43	Build a covered storage areas with solar panels for OEM equipment.	The facility storage is for all OEM equipment for the OEM warehouse. Incorporate solar panels are on top of the building.	All Hazards	Medium	Monmouth County OEM	County budget, sustainable grants	\$5M	3 years	New 2026	
Action 44	Decommission Red Valley Dam and Repair or Rehabilitate County Bridge U-1, Trenton - Lakewood Rd. (CR 526), Upper Freehold.	Decommission Red Valley Dam and repair or rehabilitate County Bridge U-1, Trenton - Lakewood Rd. (CR 526), Upper Freehold. Preliminary studies are ongoing.	Flood, Wave Action. Nor'easter, Hurricane and Tropical Storm	High	Monmouth County Department of Public Works & Engineering	State of New Jersey, Monmouth County	\$2 million	2 - 5 years	New 2026	
Action 45	Shoreline Stabilization at Belford Ferry and N-61 Dredge Disposal area	Stabilize shoreline at Belford Ferry and N-61 Dredge Disposal area. Beach maintenance is per CAFRA General Permit.	Flood, Wave Action. Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Monmouth County Department of Public Works & Engineering	State of New Jersey, Monmouth County	\$2 million	2 - 6 years	New 2026	
Action 46	Compton's Creek/Shoal Harbor Jetty Repairs and Rehabilitation	Repair and rehabilitate Compton's Creek/Shoal Harbor Jetty.	Flood, Wave Action. Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Monmouth County Department of Public Works & Engineering	State of New Jersey, Monmouth County	\$4 million	1 - 6 years	New 2026	

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 47	Construct Metal Storage Building at Highway District No. 10 for Relocation of Highway District No. 8	Construct metal storage building at Highway District No. 10 for relocation of Highway District No. 8.	Flood, Wave Action. Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Monmouth County Department of Public Works & Engineering	State of New Jersey, Monmouth County	\$7.5 million	1 - 3 years	New 2026	
Action 48	Maintaining, Updating, and Hard Armoring (as needed) Bridges and Roadways	Maintain and update, as needed, including A-51, Hockhockson Road, Colts Neck Township, Bridge (overtops and is considered functionally obsolete); F-26, Three Brooks Road, Freehold Township, Bridge overtops, (3) x 48" RCP; H-5, Palmer Ave, Holmdel Township, Bridge overtops; H-7, Middle Road, Holmdel Township, Bridge and approaches overtop; H-9, S. Laurel Ave, Holmdel Township, Overtopping pipe; HL -9, Howell Road, Howell Township, Overtops, bridge (is in poor condition); HL- 11, Wycoff Mill Road, Howell Township, Overtops, 5 ft RCP; HL -19, Friendship Road, Howell Township, 36" CMP, overtops; HL -80, Friendship Road, Howell Township, 30 inch RCP, overtops; HL-22, Aldrich Road, Howell Township, Bridge overtops (over all condition is fair, structure is considered functionally obsolete); HL- 64, Southard Ave, Howell Township, Bridge (overtops and is considered to be SD) (under design); MA-10, Matawan Ave, Matawan Borough, Pipe overtops; ML-17, Station Road, Marlboro Township, Overtops (under design); ML-18, Station Road, Marlboro Township, Overtops (under design); ML-19, Station Road, Marlboro Township, Overtops (under design); MN-35, CR 527, Englishtown Borough,	Flood, Wave Action. Nor'easter, Hurricane and Tropical Storm, Storm Surge	Low to High	Monmouth County Department of Public Works & Engineering	State of New Jersey, Monmouth County	\$41,000,000.00	2 to 5+ years	New 2026	

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Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		24" pipe overtops; MN-31, CR 527, Englishtown Borough, Bridge (overtops, structure is functionally obsolete); MN-34, CR 527, Englishtown Borough, Bridge (overtops structure is functionally obsolete) (recently repaired); MN-36, Pension Road, Englishtown Borough, Bridge overtops; MN-56, Tennent Road, Manalapan Township, Bridge overtops; MN-57, Pease Road, Manalapan Township, Bridge overtops; MN-58, Pease Road, Manalapan Township, Pipe overtops; MN-59, Comack Lane, Manalapan Township, Bridge overtops (fair condition); MT-9, Cherry Tree Farm Road, Middletown Township, Bridge overtops; MT-13, Sleepy Hollow Road, Middletown Township, Bridge overtops; MT-14, Sleepy Hollow Road, Middletown Township, Bridge overtops; MT-15b, Stillwell Road, Middletown Township, Overtops; MT-17a, Grand Ave, Middletown Township, Pipe overtops; MT-17b, 7th Ave, Middletown Township, Pipe overtops; MT-33, Middletown-Lincroft Road, Middletown Township, 5' RCP, overtops; MT-46, Middletown-Lincroft Road, Middletown Township, 4' RCP, overtops; MS-9, Red Valley Road, Millstone Township, Bridge overtops; N-17, East End Ave, Neptune City Borough, Approach roadway overtops (under design); N-23, N. Riverside Drive, Neptune Township, Pipe overtops; R-8, Union Ave, Union Beach, Pipe overtops; R-9, Union Ave, Union Beach, Pipe overtops; R-18, Florence Ave, Keyport Borough, Pipe overtops; R-19, Green Grove Avenue, Hazlet								

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		<p>Township, Pipe Overtops; R-32, Florence Ave, Hazlet Township, Pipe Overtops; R-33, Florence Ave, Keyport Borough, Pipe overtops; S-12a, Walter Street, Tinton Falls Borough, Pipe overtops; W-18a, Allenwood Road, Wall Township, Overtops; W-43, Ocean Road, Belmar and Avon Boroughs (Install permanent Emerg. Generator for bascule bridge) (under design; preliminary study); and U-73, Immlaystown-Hightstown Road, Upper Freehold Township, Bridge (over tops, poor condition, considered structurally deficient) (under design).</p> <p>Replace or elevate County bridges and culverts. Such projects may include the replacement of a County bridge or culvert and/or elevating the approach roadway above the flood elevation or to accommodate the new bridge structure. Project locations include, but are not limited to, the following: County Bridge H-5 H-5A, Palmer Ave (CR 7), Holmdel Middletown; County Bridge MA-11, Aberdeen Road, Matawan; County Bridges ML-17, ML-18, ML-19, Station Rd., Marlboro; County Bridge R-5, Florence Ave (CR 39), Union Beach; Union Ave (CR 39), Union Beach.</p> <p>Hard armoring of creek and riverbanks and shorelines is not always possible or desirable. In most areas of the County, the only way to mitigate the results of flooding is to anticipate for, maintain, and provide efforts to recover after an extreme event. Thus, it is essential to inspect and maintain the structural</p>								

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Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
		<p>integrity of County infrastructure and to perform activities to remove debris and sediment that may negatively affect the flow of surface water in and around this infrastructure. This includes activities such as removing debris from underneath low-lying bridges and culverts, clearing sediment build-up, or repairing embankment erosion on riverbanks near County infrastructure. Also, repairing and cleaning stormwater drains and other drainage systems.</p> <p>Due to the location of coastal bridges, the substructure is highly susceptible to scour and the effects of waves, tides, and storm surges. Installing hard armoring (i.e. rip rap, jetty stone, and/or steel sheeting) would mitigate this coastal erosion that jeopardizes County bridges and the roads they carry. One such bridge, previously mentioned in this action, is Monmouth County Bridge W- 43 over the Shark River in the Boroughs of Avon-by-the-Sea and Belmar. Bridge W-43 carries Ocean Ave. (CR 18). Other potential bridges include but are not limited to; S-31 (Middletown, Rumson), 5-32 (Rumson, Sea Bright), and W-9 (Brielle, Manasquan).</p>								
Action 49	Perform Stormwater/Flood Studies.	Perform stormwater/flood studies in Township of Neptune, Borough of Neptune City, and Borough of Bradley Beach.	Flood, Wave Action. Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Monmouth County Department of Public Works & Engineering, Township of Neptune, Borough of	Grant	\$250K	1 - 3 years	New 2026	

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
					Neptune City, Borough of Bradley Beach					
Action 50	Improve Belford Ferry Terminal	The Ferry Terminal is on Compton's Creek on the Sandy Hook Bay. The building and marine elements may need structural improvements to protect against wave action.	Wave Action	High	Monmouth County Department of Public Works & Engineering	Grants	\$5M	1 - 3 years	New 2026	
Action 51	REPI Encroachment Protection Agreement	Multi-year Agreement between NWS Earle, Monmouth County, and Monmouth Conservation Foundation to acquire conservation easements over developable parcels near NWS Earle. REPI provides up to 50% of the total cost of the transaction.	Water Quality, High-Density Development, Flood Risk	Medium	Monmouth County Division of Planning, Naval Weapons Station Earle, Monmouth Conservation Foundation	Readiness and Environmental Protection Integration (REPI)	\$3,000,000.00	3 years	New 2026	Targets conservation easements over two parcels in FY25-26, with two additional parcels in FY26-27.
Action 52	REPI Challenge Military Installation Coastal Resilience	Cooperative Agreement for Installation Resilience Services in support of NWS Earle with Monmouth University Urban Coast Institute to further develop concepts and permitting for coastal sites in Raritan Bayshore and Atlantic Ocean communities in Monmouth County. Supports planning and permitting on 3 projects in County; Cliffwood Beach Restoration in Aberdeen Twp, Veterans Park Living Shoreline in Highlands, and Sylvan Lake Living Shoreline in Avon & Bradley Beach.	Flood Risk Reduction, Wildfire, Stormwater, Water Quality, Habitat Enhancement	Medium	Monmouth University Urban Coast Institute, Naval Weapons Station Earle	Readiness and Environmental Protection Integration (REPI)	\$1,000,000.00	5+ Years	New 2026	

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Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 53	Ware Creek Marsh Restoration	Executed under Cooperative Agreement w/ Monmouth University Urban Coast Institute. Planning and permitting to designate site as beneficial reuse location for channel dredging.	Flood Risk Reduction, Stormwater Conveyance, Habitat Enhancement, Sea Level Rise Adaptation	Medium	Monmouth University Urban Coast Institute, Naval Weapons Station Earle, Monmouth County	Department of the Navy, National Fish and Wildlife Fund, REPI	\$550,000	2025-2029	New 2026	Goal to elevate marsh, restore flow to channels, eradicate phragmites and restore spartina, protecting bordering County and navy infrastructure.
Action 54	Cliffwood Beach Stabilization & Restoration	Executed under Cooperative Agreement w/ Monmouth University Urban Coast Institute. Construction phase of project developed by REPI.	Coastal Erosion, 100-yr and nuisance flooding, Dune Restoration	Medium	Monmouth University Urban Coast Institute, Naval Weapons Station Earle, Aberdeen Twp	REPI, Aberdeen Township	\$7,500,000	2025-2029	New 2026	Project goal replenishes beachfront, installs t-groin protection structures, and establishes vegetated dune system to protect municipal park and roadway.
Action 55	NWS Earle Oyster Restoration Research Area	Several projects lead by Monmouth University Urban Coast Institute to study the reintroduction and establishment of oysters within NWS Earle's restricted waterway.	Habitat Enhancement, Storm Surge, Water Quality	Medium	Monmouth University Urban Coast Institute (Lead), Naval Weapons Station Earle	Office of Naval Research, National Fish and Wildlife Fund	\$3,000,000	2022 - Present	New 2026	Includes oyster research site, Atlantic Highlands Test Bed. Congressional District 6 sponsorship.
Action 56	Oysters at Naval Weapons Station Earle Ecosystem Restoration Area	Project lead by United States Army Corps of Engineers New York District to deploy a 10-acre oyster reef within NWS Earle's Restricted Waterway.	Storm Surge, Coastal Erosion, Habitat Enhancement	Low	USACE NY-District, NJDEP, Monmouth University Urban Coast Institute, Naval Weapons Station Earle	USACE, NJDEP, US Navy, REPI	\$10,000,000+	2024- Present	New 2026	

Action	Name	Description	Hazards Addressed	Priority	Responsible Party	Potential Funding	Cost Estimate	Timeline	Action Status	Notes
Action 57	Ware Creek Nature-Based Shoreline Stabilization Project	Nature-based protection along the Monmouth County and US Navy owned shorelines adjacent to Naval Weapons Station Earle that includes oyster reef breakwaters and marsh restoration aimed to create habitat and protect the Navy's infrastructure and Ware Creek marsh. Current project includes design and permitting being funded by NFWF.	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge, Habitat Loss		US Navy, Monmouth University, NY/NJ Baykeeper	National Fish and Wildlife Foundation (NFWF), FEMA, NOAA	\$5 Million	Design and Permitting: Ongoing Construction: 2 years	New 2026	