

Appendix Vol I.54 Monmouth County

Please find below the following documents specific to this jurisdiction that have been included as part of the plan update process.

- Mitigation Action Table
- Mitigation Action Worksheets
- Capability Assessment
- Meeting Material

Monmouth County

NFIP Statistics

22,004 *Polices In-force*

19,658 *Total Losses*

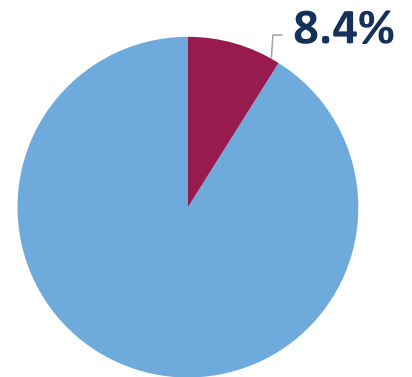
\$929,608,790 *Total Payments*

4,642 *RL - Total Losses*

\$214,147,202 *RL - Total Paid*

407 *SRL - Total Losses*

\$18,504,579 *SRL - Total Paid*



Percent Land Area Within SFHA

30

Total Mitigation Actions

4



Education and Awareness Programs

13



Structure and Infrastructure Projects

7



Local Plans and Regulations

6



Natural Systems Protection



1,978 *SV Population At Risk (2017)*

52,552 *Population at Risk (2017)*

Monmouth County

Monmouth County HMP Mitigation Action Summary

Community Action #	Action Name	Action Description	Action Category	Action Type	Hazard(s) Addressed	Priority	Ease of Implementation	Responsible Party	Potential Funding Sources	Cost Estimate	Timeline	Action Status
54_01	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, and floodplain regulations.	Administrative	Local Plans and Regulations	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Low	Monmouth County Division of Planning and Office and Emergencv	Dedicated staff time	\$50,000.00	5 + years	Ongoing
54_02	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.	Administrative	Local Plans and Regulations	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Low	Monmouth County Division of Planning and Office and Emergencv	Dedicated staff time, FEMA HMA	\$25,000.00	5 + years	Ongoing
54_03	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 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.	Administrative	Education and Awareness Programs	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Low	Monmouth County Division of Planning, GIS Section	Dedicated staff time, FEMA HMA	\$100,000,000.00	5 + years	Ongoing
54_04	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.	Mitigation - Continuity of Fuctional Use	Natural Systems Protection	Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Low	Monmouth County Park System	FEMA HMA, The Nature Conservancy (TNC), National Fish and Wildlife Foundation (NFWF)	\$700,000.00	2 years	Ongoing
54_05	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 (2008). 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.	Mitigation - Risk Reduction	Natural Systems Protection	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge, Winter Storm	High	Medium	Monmouth County Park System	FEMA HMA	\$100,000,000.00	5 + years	Ongoing

Monmouth County HMP Mitigation Action Summary												
Community Action #	Action Name	Action Description	Action Category	Action Type	Hazard(s) Addressed	Priority	Ease of Implementation	Responsible Party	Potential Funding Sources	Cost Estimate	Timeline	Action Status
54_06	Improve Coastal Dune Systems at Four County Parks	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.	Mitigation - Continuity of Fuctional Use	Natural Systems Protection	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Low	Monmouth County Park System, US Fish & Wildlife Service, NOAA, FEMA,	New Jersey Corporate Wetlands Restoration Partnership (NJCWRP), FEMA HMA, National Fish and Wildlife	\$1,400,000.00	3 years	Ongoing
54_07	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 with improved stream function.	Mitigation - Continuity of Fuctional Use	Natural Systems Protection	Flood, Nor'easter, Hurricane and Tropical Storm	Medium	Medium	Monmouth County Park System	FEMA HMA, County budget	\$2,300,000.00	2 years	Ongoing
54_08	Conduct Scheduled Burning and Mechanical Thinning at Three County Parks	Conduct scheduled burning and mechanical thinning at Fisherman's Cove Conservation Area (Manasquan Borough), Turkey Swamp Park (Freehold Township), and Bayshore Waterfront Park (Middletown Township).	Maintenance/Response/Recovery	Natural Systems Protection	Wildfire	Medium	Low	Monmouth County Park System	County budget, State Forest Fire Service	\$55,000.00	1 year	Ongoing
54_09	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.	Mitigation - Continuity of Fuctional Use	Natural Systems Protection	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Medium	Monmouth County Park System	FEMA Hazard Mitigation Assistance (HMA), NJDEP Blue Acres, Environmental Protection Agency	\$20,000,000.00	3 years	Ongoing
54_10	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 and operational preparations would be in addition to promoting Monmouth County's Know Your Zone initiative.	Maintenance/Response/Recovery	Structure and Infrastructure Project	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge, All Hazards	Medium	Low	Monmouth County Department of Public Works & Engineering and	County budget	\$20,000,000.00	5 + years	Ongoing

Monmouth County

Monmouth County HMP Mitigation Action Summary

Community Action #	Action Name	Action Description	Action Category	Action Type	Hazard(s) Addressed	Priority	Ease of Implementation	Responsible Party	Potential Funding Sources	Cost Estimate	Timeline	Action Status
54_11	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.	Administrative	Education and Awareness Programs	All Hazards	High	Low	Monmouth County Office and Emergency Management	County budget	\$582,000.00	5 + years	Ongoing
54_12	Provide Wind-Resistant 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.	Mitigation - Risk Reduction	Structure and Infrastructure Project	Extreme Wind, Nor'easter, Hurricane and Tropical Storm	Medium	Low	Monmouth County Office and Emergency Management	FEMA HMA	\$1,000,000.00	1 year	Ongoing
54_13	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 applies for a regional level mitigation project.	Mitigation - Risk Reduction	Structure and Infrastructure Project	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge, Winter Storm	High	Medium	Monmouth County Division of Planning; Monmouth Countv Office of	County budget		2 years	New
54_14	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.	Administrative	Local Plans and Regulations	All Hazards	Medium	Low	Monmouth County Division of Planning; Monmouth Countv Office of	County budget		2 years	New
54_15	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 as a result 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.	Administrative	Education and Awareness Programs	Flood, Nor'easter, Hurricane and Tropical Storm	Medium	Low	Monmouth County OEM	County budget	\$250,000.00	2 years	New

Monmouth County

Monmouth County HMP Mitigation Action Summary

Community Action #	Action Name	Action Description	Action Category	Action Type	Hazard(s) Addressed	Priority	Ease of Implementation	Responsible Party	Potential Funding Sources	Cost Estimate	Timeline	Action Status
54_16	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.	Administrative	Education and Awareness Programs	All Hazards	Medium	Low	Monmouth County	County budget	\$56,000.00	2 years	New
54_17	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.	Administrative	Local Plans and Regulations	All Hazards	Low	Low	New Jersey State Council for the Arts, NJCAR, and Monmouth Arts	County budget		2 years	New
54_18	During Non-emergency Events, Continue to Support and Strengthen the Relationships between Government Agencies, Non-profits Organizations, and Volunteers that are Community Partners in the County’s Long-Term Recovery Group	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.	Maintenance/Response/Recovery	Local Plans and Regulations	All Hazards	Low	Low	Monmouth County Long-Term Recovery Group	Robin Hood Foundation, County budget		5 + years	New
54_19	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.	Administrative	Local Plans and Regulations	Dam Failure	Low	Medium	Monmouth County	County budget	\$0.00	3 years	New
54_20	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.	Administrative	Local Plans and Regulations	All Hazards	Low	Low	Monmouth County, Monmouth Regional Chamber of	County budget		3 years	New
54_21	Repair, Remove, or Rehabilitate the Allentown Dam	Repair, remove, or rehabilitate Allentown Dam, a High-Hazard Potential Dam, located along Doctors Creek.	Mitigation - Risk Reduction	Structure and Infrastructure Project	Dam Failure	High	High	Monmouth County, owns dam	County budget, NJDEP Bureau of Dam Safety and Flood Control	\$0.00	3 years	New

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Monmouth County HMP Mitigation Action Summary

Community Action #	Action Name	Action Description	Action Category	Action Type	Hazard(s) Addressed	Priority	Ease of Implementation	Responsible Party	Potential Funding Sources	Cost Estimate	Timeline	Action Status
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54_22	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.	Mitigation - Risk Reduction	Structure and Infrastructure Project	Dam Failure	High	High	Monmouth County, owns dam	County budget, NJDEP Bureau of Dam Safety and Flood Control	\$0.00	3 years	New
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54_23	Construct a Fueling Station at Highway District #6 in Eatontown	Monmouth County has strategically located highway district yards throughout the County, which have provided fuel not only to County Municipal fleets, but during disaster events, to the National Guard, Federal Emergency Management Agency, and Local Police, Fire, Ambulatory, and Rescue vehicles. The construction of a fueling station at Highway District #6 in Eatontown would provide fuel in a central and critical area of Monmouth County. To mitigate (i.e. lessen the damage/cost) the results as a flooding event it is necessary to have a source of available fuel for vehicles.		Structure and Infrastructure Project	All Hazards			Monmouth County Department of Public Works & Engineering	County funded only.	\$500,000.00		Completed
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54_24	Purchase and Install Generators at County Highway District	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 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.	Mitigation - Continuity of Fuctional Use	Structure and Infrastructure Project	All Hazards	Medium	Low	Monmouth County Department of Public Works & Engineering	FEMA HMA	\$2,000,000.00	1 year	Ongoing
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54_25	Rehabilitate and Upgrade 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 safety 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; 2) Matawan Lake Dam, County Bridge MA-13, Main St. (CR 516), Matawan; 3) Perrineville Dam, County Bridge MS-48, Perrineville Rd. (CR 1), Millstone; 4) Shadow Lake Dam, County Bridges MT - 30 MT-45, Hubbard Ave. (CR 12), Middletown; 5) Indian Dam, County Bridge U-18, Church St. (CR 526), Allentown; and 6) Hurley Pond Dam, County Bridge W18, Allenwood Rd., Wall.	Mitigation - Continuity of Fuctional Use	Structure and Infrastructure Project	Dam Failure, Flood, Nor'easter, Hurricane and Tropical Storm	High	High	Monmouth County Department of Public Works & Engineering	FEMA HMA, NJDEP Bureau of Dam Safety and Flood Control, FEMA's High-Hazard Potential Dam Grant		3 years	Ongoing
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Monmouth County Public Works & Engineering

Monmouth County HMP Mitigation Action Summary

Community Action #	Action Name	Action Description	Action Category	Action Type	Hazard(s) Addressed	Priority	Ease of Implementation	Responsible Party	Potential Funding Sources	Cost Estimate	Timeline	Action Status
54_26	Purchase and Install Generator at Monmouth County Hall of Records Building and Human Services	Installation of permanent emergency generators at Monmouth County Hall of Records (Freehold Borough) and Human Services Building (Freehold Township). These generators will be designed to handle all potential electrical loads at these buildings thereby ensuring uninterrupted continuity of County government and response to the emergency at hand.	Mitigation - Continuity of Fuctional Use	Structure and Infrastructure Project	All Hazards			Monmouth County Department of Public Works & Engineering	HMGP, PDM, and County match, whether it be financial or in-kind in-house labor or both.	\$1,110,000.00		Completed
54_27	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 Rood, 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.	Mitigation - Continuity of Fuctional Use	Structure and Infrastructure Project	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Medium	Monmouth County Department of Public Works & Engineering	FEMA HMA, NJDOT		3 years	Ongoing
54_28	Inspect and Maintain the Structural Integrity of County Infrastructure	Hard armoring of creek and river banks 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.	Maintenance/Respon se/Recovery	Structure and Infrastructure Project	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm	Medium	Low	Monmouth County Department of Public Works & Engineering and	County budget		2 years	Ongoing
54_29	Install Hard-armoring 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-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 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).	Mitigation - Continuity of Fuctional Use	Structure and Infrastructure Project	Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Medium	Medium	Monmouth County Department of Public Works & Engineering	FEMA HMA		2 years	Ongoing
54_30	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.	Mitigation - Risk Reduction	Structure and Infrastructure Project	Flood, Nor'easter, Hurricane and Tropical Storm	Medium	Low	Monmouth County Public Works & Engineering	FEMA HMA	\$600,000.00	2 years	Ongoing

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_01

Monmouth County

Describing the Action

Action Name:	Provide Assistance to the National Flood Insurance Program's (NFIP) Community Rating System (CRS) Program
Action Category:	Administrative
Action Type:	Local Plans and Regulations
HMA Eligible Activity:	Miscellaneous/Other
Action Description:	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, and floodplain regulations.

Evaluating the Action

Hazard(s) Addressed:	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge
Goals:	1, 2, 3, 5, 7, 8
Risk Reduction:	Towns that take action steps to increase their resiliency to future storm events can help residents and businesses increase their eligibility for policyholder discounts. Many communities in Monmouth County lack the in-house resources to undertake the more technical aspects of the program. In turn, many communities have either not accessed the program at all or have entered at only the lowest levels. Many homeowners and businesses in Monmouth County may see an increase in their flood insurance premiums as the new FEMA Flood Maps are adopted.
Technical:	This program is technically feasible including the production of public information material for distribution, outreach meetings, website and document maintenance, ordinance and master plan preparation assistance, GIS mapping, and land use analysis.
Political:	The CRS program has been formalized by the Monmouth County Board of Chosen Freeholders; 19 local municipalities are either current participants in CRS or have taken actions to implement CRS.
Legal:	No known legal impediments.
Environmental:	No known negative environmental impacts.
Social:	Any property owner in a flood-prone area of a CRS community may directly benefit from this type of assistance; those outside flood prone areas benefit from overall improved community resiliency, minimized storm impacts, lower cleanup repair/replacement costs over time.
Administrative Capability:	Monmouth County has the staff to assist but requires additional training and expertise on some CRS and floodplain subject matters.
Local Champion:	Monmouth County Division of Planning and Office of Emergency Management
Other Community Objectives:	Integrate mitigation activities and practices into county and local master plans, improve public awareness and involvement in mitigation activities and flood preparedness
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$50,000.00
Priority:	High
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Division of Planning and Office and Emergency Management
Local Planning Mechanism:	Participation in the NFIP Community Rating System (CRS), Monmouth County Master Plan (2016)
Likely Funding Source(s):	Dedicated staff time
Timeline:	5 + years
Action Status:	Ongoing
Notes:	This action is ongoing from the 2015 plan as the County continues to assist the municipalities through the Monmouth County Community Rating System Assistance Program, which was recognized as a National Association of Counties (NACo) 2016 Achievement Award Winner in the Category of County Resiliency: Infrastructure, Energy & Sustainability. There are currently 16 municipalities in the CRS program.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_02

Monmouth County

Describing the Action

Action Name:	Support Municipal Floodplain Management Planning
Action Category:	Administrative
Action Type:	Local Plans and Regulations
HMA Eligible Activity:	Miscellaneous/Other
Action Description:	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.

Evaluating the Action

Hazard(s) Addressed:	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge
Goals:	1, 2, 4, 5, 8
Risk Reduction:	Many communities and residents suffer from flooding events on a regular basis and incur significant damages and costs associated with preparation, response, and recovery from these events. There also tends to be to disconnect between local master plans and floodplain management issues.
Technical:	This program is technically feasible as there are numerous staff members with educational backgrounds that support this type of activity including degrees in planning, environmental science, environmental policy, engineering.
Political:	This activity supports advancement of the County's CRS program which has received support from County officials.
Legal:	No known legal impediments
Environmental:	No known negative environmental impacts
Social:	This action benefits multiple municipal jurisdictions in Monmouth County by providing certified staff to assist with local floodplain management strategies including ordinance preparation master plans, and outreach. Communities benefit from having certified experts to call upon at the regional level to assist in floodplain management and reducing flood risk.
Administrative Capability:	Monmouth County has the staff to assist but requires additional training and expertise on some CRS and floodplain subject matters.
Local Champion:	Monmouth County Division of Planning and Office of Emergency Management
Other Community Objectives:	Better integration of floodplain management issues and recommendations into county and local master plans as well as local ordinances. This effort improves County effectiveness to support efforts in the CRS program.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$25,000.00
Priority:	Medium
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Division of Planning and Office and Emergency Management
Local Planning Mechanism:	Master Plan and ordinances, Hazard Mitigation Plan, Monmouth County Master Plan (2016)
Likely Funding Source(s):	Dedicated staff time, FEMA HMA
Timeline:	5 + years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; the County would also like to join the New Jersey Coastal Coalition, a group of New Jersey waterfront communities that meet monthly in a workshop setting, to discuss common municipal flooding issues.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_03

Monmouth County

Describing the Action

Action Name:	Expand Online Mapping Services
Action Category:	Administrative
Action Type:	Education and Awareness Programs
HMA Eligible Activity:	Miscellaneous/Other
Action Description:	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 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.

Evaluating the Action

Hazard(s) Addressed:	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge
Goals:	1, 2, 3, 4, 5, 8
Risk Reduction:	Many local officials in Monmouth County lack direct access to mapping services. This creates a gap in their full understanding of natural hazards in their communities, significant costs are incurred each year for hazard response, recovery, and damage repair. Lack of access to mapping services creates a situation in some communities where mitigation project development is sometimes hindered, and public education/warning programs are not as efficient or targeted as they could be.
Technical:	This program is technically feasible including the development of online mapping services, providing technical outreach assistance, and map assistance with CRS program requirements.
Political:	A GIS program and CRS program including is available to municipalities through the County. This would enhance existing capabilities.
Legal:	No known legal impediments.
Environmental:	No known negative environmental impacts.
Social:	Communities and the public would benefit from risk awareness and analysis. Communities could include mapping and modeling their community master plans, land use studies, environmental resources inventories, etc.
Administrative Capability:	Monmouth County has the staff to assist but requires additional training and GIS capabilities.
Local Champion:	Monmouth County Division of Planning
Other Community Objectives:	Risk identification and analysis, community planning, public information and awareness, remote access to information, asset inventory, and impact modeling.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$100,000,000.00
Priority:	Medium
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Division of Planning, GIS Section
Local Planning Mechanism:	Monmouth County GIS Program, Monmouth County Master Plan (2016)
Likely Funding Source(s):	Dedicated staff time, FEMA HMA
Timeline:	5 + years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; the County is working on setting up Open Source Mapping.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_04

Monmouth County

Describing the Action

Action Name:	Protect and Restore Claypit Creek and Portland Place
Action Category:	Mitigation - Continuity of Functional Use
Action Type:	Natural Systems Protection
HMA Eligible Activity:	Soil Stabilization
Action Description:	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.

Evaluating the Action

Hazard(s) Addressed:	Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge
Goals:	3, 5, 6
Risk Reduction:	Within Hartshorne Woods Park in Middletown Township, there are two unique sites: Claypit Creek and Portland Place. The sites are protected by coastal river edge bluffs which were severely eroded during Superstorm Sandy. Both sites offer passive recreation activities for county residents and have a south-eastern orientation steep bluff, which received the most direct exposure of winds, flooding, and wave action from the storm.
Technical:	Technically feasible by proven methods of river coastal restoration and case studies.
Political:	No political opposition is known. Previous support by other conservation organizations was obtained.
Legal:	No legal obstacles.
Environmental:	Must conform to NJDEP and US Army Corps of Engineers regulations.
Social:	Recreational facilities provide benefits for a wide age and ability cross section of the public. Natural resources are protected for the public good.
Administrative Capability:	Monmouth County has the personnel and administrative capabilities to begin planning and permitting for such a project. Additional specialty consultants will be hired on as needed basis.
Local Champion:	Monmouth County, NJDEP
Other Community Objectives:	Protects existing recreational features or public natural areas adjacent to project sites.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$700,000.00
Priority:	High
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Park System
Local Planning Mechanism:	NJ Municipal Land Use Law (MLUL), NJDEP Permitting, Monmouth County Open Space Plan (2008), Monmouth County
Likely Funding Source(s):	FEMA HMA, The Nature Conservancy (TNC), National Fish and Wildlife Foundation (NFWF)
Timeline:	2 years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; planning has been underway for two years. Construction is scheduled to begin in September 2019.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_05

Monmouth County

Describing the Action

Action Name:	Acquire Flood-prone Properties, especially Repetitive Loss and Severe Repetitive Loss Properties
Action Category:	Mitigation - Risk Reduction
Action Type:	Natural Systems Protection
HMA Eligible Activity:	Property Acquisition and Structure Demolition
Action Description:	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 (2008). 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.

Evaluating the Action

Hazard(s) Addressed:	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge, Winter Storm
Goals:	1, 2, 5, 6
Risk Reduction:	The County Park System acquires land for open space preservation, public park and recreation purposes and natural resources conservation. Some of the properties that are identified for acquisition are ones that are subject to flooding, winter storms or associated storm surges. These properties may be located in coastal zones or located along stream and river corridors throughout the county. When many properties along a watercourse are acquired, they form a protected greenway along the stream or river. By purchasing these properties, any buildings located in the flood zone are removed and the land is restored to a natural condition. Protected lands adjacent to coastal zones and river courses helps to reduce regional flooding by not increasing impervious cover and also allows natural systems of forests and marshes to mitigate some of the effects of flooding.
Technical:	Technically feasible and proven technique to reduce flooding and the elimination of flood prone structures.
Political:	This is a continuing program that has always had favorable support since its inception.
Legal:	No legal obstacles.
Environmental:	Program provides for the protection of natural resources from development.
Social:	Recreational facilities provide benefits for a wide age and ability cross section of the public. Natural resources are protected for the public good.
Administrative Capability:	Monmouth County has the personnel and administrative capabilities to continue in the purchasing properties for Open Space Conservation and Recreational needs.
Local Champion:	Monmouth County
Other Community Objectives:	Provides additional recreational opportunities, land conservation, open space preservation, flood mitigation, and natural resources protection)
STAPLEE Evaluation:	11

Implementing the Action

Cost Estimate:	\$100,000,000.00
Priority:	High
Scale of Ease of Implementation:	Medium
Responsible Party:	Monmouth County Park System
Local Planning Mechanism:	Monmouth County Open Space Plan (2008), Monmouth County Master Plan (2016)
Likely Funding Source(s):	FEMA HMA
Timeline:	5 + years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; the County has acquired 225 properties in Aberdeen since the last plan update. Monmouth County will continue to purchase properties.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_06

Monmouth County

Describing the Action

Action Name:	Improve Coastal Dune Systems at Four County Parks
Action Category:	Mitigation - Continuity of Functional Use
Action Type:	Natural Systems Protection
HMA Eligible Activity:	Soil Stabilization
Action Description:	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.

Evaluating the Action

Hazard(s) Addressed:	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge
Goals:	2, 3, 5, 6
Risk Reduction:	Fisherman's Cove Conservation Area, Seven Presidents Oceanfront Park, Henry Hudson Trail at Popamora Point, and Bayshore Waterfront Park experience coastal dunes loss, erosion of coastal zone open space, real estate loss, a reduction in sedimentation of adjacent channels, and protective features for adjacent private properties.
Technical:	Technically feasible, Seven Presidents Oceanfront Park and Bayshore Waterfront Park have constructed dune systems.
Political:	Political and popular support.
Legal:	County owned property, permittable actions.
Environmental:	No impacts, compliant with land use regulations.
Social:	No specific populations affected. No permanent disruptions to communities.
Administrative Capability:	The County of Monmouth has the personnel and administrative capabilities to plan and coordinate implementation for such a project.
Local Champion:	Monmouth County, Borough of Atlantic Highlands, Manasquan Borough, City of Long Branch, and Middletown Township.
Other Community Objectives:	Structural Project, Natural Resource Protection
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$1,400,000.00
Priority:	Medium
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Park System, US Fish & Wildlife Service, NOAA, FEMA, HRERP
Local Planning Mechanism:	Monmouth County Open Space Plan (2008), Monmouth County Master Plan (2016)
Likely Funding Source(s):	New Jersey Corporate Wetlands Restoration Partnership (NJCWRP), FEMA HMA, National Fish and Wildlife Foundatio
Timeline:	3 years
Action Status:	Ongoing
Notes:	The County was awarded \$50,000 for repairs to Bayshore Waterfront Park, \$6,500 for Fisherman's Cove Conservation Area, \$223,000 for Seven Presidents Park, and \$1.2M for Henry Hudson Park through FEMA's 406 Public Assistance funding.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_07

Monmouth County

Describing the Action

Action Name:	Install Stream Bank Stabilization Techniques for the Ramanessin Brook, Pine Brook, and Manasquan River
Action Category:	Mitigation - Continuity of Fuctional Use
Action Type:	Natural Systems Protection
HMA Eligible Activity:	Floodplain and Stream Restoration
Action Description:	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 with improved stream function.

Evaluating the Action

Hazard(s) Addressed:	Flood, Nor'easter, Hurricane and Tropical Storm
Goals:	1,2,6
Risk Reduction:	Pine Brook (Pine Brook Golf Course, Manalapan) and Ramanessin Brook (Holmdel Park, Holmdel) need stream bank stabilization and the Manasquan River (Turkey Swamp Park, Freehold) needs floodplain restoration. The Manasquan River has been increasingly more flood prone and suffers potable water quality issues related to increased watershed development and past stream channel straightening impacts.
Technical:	Technically feasible by proven methods of stream and river restoration case studies.
Political:	No political opposition is known. Previous support by other conservation organizations was obtained.
Legal:	Proposal utilizes existing public property under the stewardship of the County.
Environmental:	No impacts. With proper review and design is permittable.
Social:	No specific populations affected. No permanent disruptions to communities.
Administrative Capability:	Monmouth County has the personnel and administrative capabilities to begin planning and studies for such a project and to determine or identify additional partnerships and funding needs. Additional specialty consultants will be hired on an as needed basis.
Local Champion:	Monmouth County Park System and Engineering
Other Community Objectives:	Protects existing recreational features or public natural areas adjacent to project sites.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$2,300,000.00
Priority:	Medium
Scale of Ease of Implementation:	Medium
Responsible Party:	Monmouth County Park System
Local Planning Mechanism:	NJDEP
Likely Funding Source(s):	FEMA HMA, County budget
Timeline:	2 years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; the County prioritizes floodplain and stream restoration and is searching for funding.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_08

Monmouth County

Describing the Action

Action Name:	Conduct Scheduled Burning and Mechanical Thinning at Three County Parks
Action Category:	Maintenance/Response/Recovery
Action Type:	Natural Systems Protection
HMA Eligible Activity:	Wildfire Mitigation
Action Description:	Conduct scheduled burning and mechanical thinning at Fisherman's Cove Conservation Area (Manasquan Borough), Turkey Swamp Park (Freehold Township), and Bayshore Waterfront Park (Middletown Township).

Evaluating the Action

Hazard(s) Addressed:	Wildfire
Goals:	1, 2, 3, 6
Risk Reduction:	Certain wild lands and urban interface areas pose a risk to losses by fire. Fisherman's Cove Conservation Area, Turkey Swamp Park, Bayshore Waterfront Park, and Naval Weapons Station Earle properties are subject to wildfires which have potential to destroy adjacent residential properties as well as park building infrastructure.
Technical:	Technically feasible.
Political:	Public support moderate, local authorities high support.
Legal:	Proposal utilizes existing public property under the stewardship of the County.
Environmental:	No impacts. With proper review and design is permittable.
Social:	No specific populations affected. No permanent disruptions to communities.
Administrative Capability:	Monmouth County has the personnel and administrative capabilities to implement the Community Wildfire Protection Plans prepared for Turkey Swamp Park (2011) and Bayshore Waterfront Park (2010). Fisherman's Cove Conservation Area still needs to be developed
Local Champion:	Monmouth County, NJ Forest Fire Service, Freehold Township., Manasquan Borough, and Middletown Township
Other Community Objectives:	Augments local fire marshal community protection efforts.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$55,000.00
Priority:	Medium
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Park System
Local Planning Mechanism:	Community Wildfire Prevention Plan
Likely Funding Source(s):	County budget, State Forest Fire Service
Timeline:	1 year
Action Status:	Ongoing
Notes:	Ongoing 2015 action; the County performed land clearing and controlled burns two years ago in Turkey Swamp Park. There needs to be more coordination with the Fire Marshall and State Forest Fire Service.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_09

Monmouth County

Describing the Action

Action Name:	Implement Slope Stabilization Techniques Along the Henry Hudson Shoreline
Action Category:	Mitigation - Continuity of Functional Use
Action Type:	Natural Systems Protection
HMA Eligible Activity:	Soil Stabilization
Action Description:	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 permissible, 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.

Evaluating the Action

Hazard(s) Addressed:	Flood, Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge
Goals:	1, 2, 3, 6
Risk Reduction:	A section of the Henry Hudson Trail located in Atlantic Highlands along Sandy Hook Bay was destroyed by Superstorm Sandy. The adjacent coastal bluff experienced erosion at the base of slope from wave action and storm surge. Above the trail, located on the bluff, there are numerous residences that have taken advantage of the unique location. The bluff is subject to slump block failure usually associated with a rain event and disruption of the slope.
Technical:	Technically feasible as other similar structures, and improvements have been installed in other coastal locations.
Political:	Public support for the repair and protection of the trail has been great since the damage from Superstorm Sandy. Additional support has been noted from the local town Environmental Commission.
Legal:	Joint project with Borough of Atlantic Highlands and the State of New Jersey as proposed project will be located on lands owned by same.
Environmental:	Must conform to NJDEP and US Army Corps of Engineers permitting issues.
Social:	Recreational facilities such as this trail, provide benefits for a wide age and ability cross section of the public. No displacement of adjacent residents is required.
Administrative Capability:	Monmouth County has the personnel and administrative capabilities to begin initial planning and studies for such a project and to determine or identify additional partnerships and permitting needs. Additional specialty consultants will be hired on an as needed basis.
Local Champion:	Monmouth County, local residents, Atlantic Highlands Administrator and Environmental Commission
Other Community Objectives:	May provide additional recreational opportunities for the public along shoreline.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$20,000,000.00
Priority:	High
Scale of Ease of Implementation:	Medium
Responsible Party:	Monmouth County Park System
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	FEMA Hazard Mitigation Assistance (HMA), NJDEP Blue Acres, Environmental Protection Agency (EPA), National Oceanic and Atmospheric Administration (NOAA)
Timeline:	3 years
Action Status:	Ongoing
Notes:	Ongoing 2015 action and remains a high priority for the County, as the risk to the County and Atlantic Highlands is getting larger with each storm. The County added a floodwall along the access route. This project is one of 11 projects listed in the 2019 Raritan/Sandy Hook Bay Coastal Resilience Planning Study (by Monmouth County) and is supported by the County, the Township, NWS Earle, and the Planning Study Technical Advisory Committee.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_10

Monmouth County

Describing the Action

Action Name:	Improve County Evacuation Preparations
Action Category:	Maintenance/Response/Recovery
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Miscellaneous/Other
Action Description:	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 and operational preparations would be in addition to promoting Monmouth County's Know Your Zone initiative.

Evaluating the Action

Hazard(s) Addressed:	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge, All Hazards
Goals:	1, 2, 5, 7
Risk Reduction:	Monmouth County has an active history of hurricanes and tropical storms. Implementation of evacuation orders related to an impending hurricane would have a significant impact on travel patterns and operating conditions on the area's transportation system. For example, prevailing directional patterns would be altered substantially as westbound and coastal residents and visitors traveling away from the coast to higher ground would heavily utilize northbound travel lanes. Congestion levels at locations that already have constrained service rate issues, such as merge junctions, ramps, and signalized major intersections would be exacerbated. The timing of an evacuation order would have a significant effect on traffic flows, the shorter the timeframe, the more intense delays and queuing potential. Operational, physical, and long-term improvements (either by route or by type) would greatly enhance to capacity of these evacuation routes during an evacuation order.
Technical:	Technically feasible, study completed, recommendations documented.
Political:	Positive public support and political will to support this action.
Legal:	No known legal impediments.
Environmental:	No negative environmental impacts.
Social:	Residents would benefit from safer evacuation routes not affected by natural hazards.
Administrative Capability:	Monmouth County has the capability to oversee this action.
Local Champion:	Monmouth County Planning, DPW, Highway, OEM and DOT; Municipal Governments.
Other Community Objectives:	Overall effort to protect residents and visitors from the hazards of coastal flooding by evaluating how the current evacuation route system can be improved to help move people away from flood zones.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$20,000,000.00
Priority:	Medium
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Department of Public Works & Engineering and Monmouth County Planning Division
Local Planning Mechanism:	2009 Monmouth County Coastal Evacuations Routes Improvement Study, Monmouth County's Know Your Zone initia
Likely Funding Source(s):	County budget
Timeline:	5 + years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; the County has purchased lights and updated GIS maps with the coastal evacuation signs/zones.

■Route completed: CR 14 (West Park AveCorridor

■Routes ongoing: CR 8A & CR 8B, CR 12 & CR 50, CR 12A, CR 14 from SR 18 to Cotswold Circle, CR 16 & Fox Chase Dr, CR 516, CR 520 (Bridge S-32), CR 520 (Bridge H-39), CR 520 & Conover Rd, CR 520 & Wyncrest Rd, CR 537 (Bridge A-44), CR 537 & SR 34 (Bridge A -18 & 1308-152), CR 537 & Jackson Ter & Jackson St, CR 537 (between SR 9 & Sentinel Rd), CR 537 & CR 524 (Elton-Adelphia Rd), CR 537 & CR 524 (Stage Coach Rd.).

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_11

Monmouth County

Describing the Action

Action Name:	Increase Hazard Education and Risk Awareness at the County Level
Action Category:	Administrative
Action Type:	Education and Awareness Programs
HMA Eligible Activity:	Miscellaneous/Other
Action Description:	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.

Evaluating the Action

Hazard(s) Addressed:	All Hazards
Goals:	1, 2, 3, 4, 5
Risk Reduction:	The general public's understanding of natural hazards and mitigation possibilities could be improved. The community's overall level of disaster resistance would increase if a greater number of households undertook low-cost or no-cost, small-scale mitigation activities (including, but not limited to, projects such as flood vents, residential floodproofing, and elevation of utilities).
Technical:	Technically feasible.
Political:	The program is already being conducted and has had enormous support from every aspect including that of political leaders.
Legal:	This is an outreach community education program with no legal issues.
Environmental:	No negative environmental impacts from this action.
Social:	This action supports all population segments but is focused on the elderly and or at risk population. This program will actually bring neighborhoods closer together.
Administrative Capability:	The County has committed personnel to this program, however if this were to be implemented on this scale, outside assistance would be needed.
Local Champion:	The County Board of Chosen Freeholders and numerous County departments have bought into the concept and are currently supporting its action.
Other Community Objectives:	Preparedness and public education for high risk individuals.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$582,000.00
Priority:	High
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Office and Emergency Management
Local Planning Mechanism:	Superstorm Sandy After Action Report and County Emergency Operations Plan
Likely Funding Source(s):	County budget
Timeline:	5 + years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; programs or mechanisms that have been initiated since the last plan update include the High-Water Mark sign, Know Your Zone, and CRS Users Group. This action will continue to be an ongoing action.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_12

Monmouth County

Describing the Action

Action Name:	Provide Wind-Resistant Building Retrofits for the County Evacuation Centers
Action Category:	Mitigation - Risk Reduction
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Structural Retrofitting of Existing Buildings
Action Description:	Provide building retrofits with hurricane-proof glass and storm shutters for the exterior windows and any applicable doors.

Evaluating the Action

Hazard(s) Addressed:	Extreme Wind, Nor'easter, Hurricane and Tropical Storm
Goals:	1, 2, 7
Risk Reduction:	Monmouth County has established a large county evacuation center at Brookdale Community College in addition to Fort Monmouth Recreation Center and Bio-Technology High School. The buildings, although structurally sound, do have some exterior windows and doors that could become compromised during a wind generating event.
Technical:	Through careful planning and using a qualified architect to design the project, this project is technically feasible.
Political:	There are no anticipated negative political issues with this action. In fact, it is anticipated that this action would draw strong political support.
Legal:	No legal challenges are anticipated. The building that is the focus of this project is at the county-owned college which is under the auspices of the County Board of Freeholders.
Environmental:	There are no environmental impacts with this project.
Social:	Does not adversely affect any particular social group.
Administrative Capability:	Since the building is under county control, this project is administratively feasible.
Local Champion:	Municipalities in the County support the OEM's desire to establish county-wide regional shelters.
Other Community Objectives:	This action does not provide benefit to any other community objectives.
STAPLEE Evaluation:	11

Implementing the Action

Cost Estimate:	\$1,000,000.00
Priority:	Medium
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Office and Emergency Management
Local Planning Mechanism:	Local and state building codes will be followed when implementing this project.
Likely Funding Source(s):	FEMA HMA
Timeline:	1 year
Action Status:	Ongoing
Notes:	<p>Ongoing 2015 action; the County prioritizes hardening a county shelter and is searching for funding. The following shelters were awarded HMGP grants in the following amounts:</p> <p>Brookdale Shelter: \$457,560.00</p> <p>Shelter Site - Brookdale Student Life Center: amount not known</p> <p>Shelter Site # 3 - Monmouth Park Racetrack: amount not known</p> <p>Shelter Site #4 - Monmouth County Bio-technology High School: amount not known</p> <p>Shelter Site - Brookdale Student Life Center: \$220,674.00</p> <p>Shelter Site # 3 - Monmouth Park Racetrack: \$440,627.00</p> <p>Shelter Site #4 - Monmouth County Bio-technology High School: \$219,323.00</p>

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_13

Monmouth County

Describing the Action

Action Name:	Create a Repetitive Loss (RL) and Severe Repetitive Loss (SRL) Bundle Project
Action Category:	Mitigation - Risk Reduction
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Localized Flood Risk Reduction Projects
Action Description:	Create a project that groups together RL and SRL Properties and then the County applies for a regional level mitigation project.

Evaluating the Action

Hazard(s) Addressed:	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge, Winter Storm
Goals:	1, 2, 3, 5, 7, 8
Risk Reduction:	Monmouth County municipalities are finding that the Cost Benefit Analysis is not always above 1 and therefore it doesn't make fiscal sense to mitigate their RL and SRL properties. If the County could bundle these high-risk properties together and apply for funding, the Cost Benefit Analysis would make fiscal sense.
Technical:	Technically feasible.
Political:	No adverse political ramifications are expected.
Legal:	No legal impediments anticipated.
Environmental:	No known adverse environmental impacts.
Social:	Does not adversely affect any particular social group. Perceived by the public to be a good thing because of repetitive nature of flooding in the project area.
Administrative Capability:	Monmouth County has the personnel and administrative capabilities to begin planning and permitting for such a project.
Local Champion:	Monmouth County OEM and Planning Division
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	
Priority:	High
Scale of Ease of Implementation:	Medium
Responsible Party:	Monmouth County Division of Planning; Monmouth County Office of Emergency Management
Local Planning Mechanism:	Hazard Mitigation Plan, Monmouth County Master Plan (2016)
Likely Funding Source(s):	County budget
Timeline:	2 years
Action Status:	New
Notes:	

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_14

Monmouth County

Describing the Action

Action Name:	Improve Financial Management of Grant Monies
Action Category:	Administrative
Action Type:	Local Plans and Regulations
HMA Eligible Activity:	Miscellaneous/Other
Action Description:	Hire new staff or rearrange existing staff's responsibilities to improve financial management of grant monies allotted to the County.

Evaluating the Action

Hazard(s) Addressed:	All Hazards
Goals:	3, 5, 7
Risk Reduction:	After Superstorm Sandy, the responsibility of passing on grant money to all local jurisdictions fell on the County Community Development Department, which is at capacity coordinating, implementing, and monitoring compliance under several federal grant programs.
Technical:	Technically feasible.
Political:	No political ramifications anticipated.
Legal:	No legal impediments anticipated.
Environmental:	No adverse environmental impacts.
Social:	Does not adversely affect any particular social group.
Administrative Capability:	The County of Monmouth has the personnel and administrative capabilities to begin planning and permitting for such a project.
Local Champion:	Monmouth County Division of Planning
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	
Priority:	Medium
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Division of Planning; Monmouth County Office of Emergency Management
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	County budget
Timeline:	2 years
Action Status:	New
Notes:	

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_15

Monmouth County

Describing the Action

Action Name:	Create 3D digital Elevation Models of Structures and Infrastructure within the 500-year Flood Zones
Action Category:	Administrative
Action Type:	Education and Awareness Programs
HMA Eligible Activity:	Localized Flood Risk Reduction Projects
Action Description:	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 as a result 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.

Evaluating the Action

Hazard(s) Addressed:	Flood, Nor'easter, Hurricane and Tropical Storm
Goals:	1, 2, 3, 4, 5, 8
Risk Reduction:	Monmouth County is vulnerable to coastal flooding.
Technical:	Technically feasible.
Political:	No political ramifications anticipated.
Legal:	No legal impediments anticipated.
Environmental:	No adverse environmental impacts.
Social:	Does not adversely affect any particular social group.
Administrative Capability:	The County of Monmouth has the personnel and administrative capabilities to begin planning and permitting for such a project.
Local Champion:	Monmouth County OEM
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$250,000.00
Priority:	Medium
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County OEM
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	County budget
Timeline:	2 years
Action Status:	New
Notes:	

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_16

Monmouth County

Describing the Action

Action Name:	Strengthen Damage Assessment Teams
Action Category:	Administrative
Action Type:	Education and Awareness Programs
HMA Eligible Activity:	Miscellaneous/Other
Action Description:	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.

Evaluating the Action

Hazard(s) Addressed:	All Hazards
Goals:	1, 2, 3, 4, 7
Risk Reduction:	The assessment tool is integrated with the electronic shelter registration tool and is expected to decrease short term recovery of disaster survivors.
Technical:	Technically feasible.
Political:	No political ramifications anticipated.
Legal:	No legal impediments anticipated.
Environmental:	No adverse environmental impacts.
Social:	Does not adversely affect any particular social group.
Administrative Capability:	The County of Monmouth has the personnel and administrative capabilities to begin planning and permitting for such a project.
Local Champion:	Monmouth County OEM
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$56,000.00
Priority:	Medium
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County
Local Planning Mechanism:	Hazard Mitigation Plan, COOP
Likely Funding Source(s):	County budget
Timeline:	2 years
Action Status:	New
Notes:	

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_17

Monmouth County

Describing the Action

Action Name:	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.
Action Category:	Administrative
Action Type:	Local Plans and Regulations
HMA Eligible Activity:	Miscellaneous/Other/NA
Action Description:	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.

Evaluating the Action

Hazard(s) Addressed:	All Hazards
Goals:	1, 2, 3
Risk Reduction:	N/A
Technical:	Technically feasible.
Political:	No political opposition is known.
Legal:	No legal obstacles.
Environmental:	No known negative environmental impacts.
Social:	Communities would benefit from public health programming.
Administrative Capability:	Monmouth County to cooperate with the New Jersey State Council for the Arts, NJCAR, and Monmouth Art.
Local Champion:	Monmouth County Division of Planning
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	
Priority:	Low
Scale of Ease of Implementation:	Low
Responsible Party:	New Jersey State Council for the Arts, NJCAR, and Monmouth Arts
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	County budget
Timeline:	2 years
Action Status:	New
Notes:	

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_18

Monmouth County

Describing the Action

Action Name:	During Non-emergency Events, Continue to Support and Strengthen the Relationships between Government Agencies, Non-profits Organizations, and Volunteers that are Community Partners in the County's Long-Term Recovery Group
Action Category:	Maintenance/Response/Recovery
Action Type:	Local Plans and Regulations
HMA Eligible Activity:	Miscellaneous/Other/NA
Action Description:	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.

Evaluating the Action

Hazard(s) Addressed:	All Hazards
Goals:	5,7
Risk Reduction:	The Monmouth County Long-Term Recovery Group provides assistance to County residents by addressing and prioritizing unmet needs.
Technical:	Technically feasible.
Political:	No political opposition is known.
Legal:	No legal obstacles.
Environmental:	No known negative environmental impacts.
Social:	Communities and the public would benefit from increased government capacity.
Administrative Capability:	Administrative capacity would be strengthened.
Local Champion:	Monmouth County Division of Planning
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	
Priority:	Low
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Long-Term Recovery Group
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	Robin Hood Foundation, County budget
Timeline:	5 + years
Action Status:	New
Notes:	

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_19

Monmouth County

Describing the Action

Action Name: Work with State Agencies to Update Regional Risk Maps for Risks that Extend Past the County Boundary

Action Category: Administrative

Action Type: Local Plans and Regulations

HMA Eligible Activity: Miscellaneous/Other/NA

Action Description: Work with State agencies to update regional risk maps, such as dam inundation flood limit maps.

Evaluating the Action

Hazard(s) Addressed: Dam Failure

Goals: 3, 4, 5

Risk Reduction: There is an absence of regional risk maps which could help assess local risk.

Technical: Technically feasible.

Political: No political opposition is known.

Legal: No legal obstacles.

Environmental: No known negative environmental impacts.

Social: Communities and the public would benefit from increased government capacity.

Administrative Capability: Administrative capacity would be strengthened.

Local Champion: Monmouth County Division of Planning

Other Community Objectives:

STAPLEE Evaluation: N/A

Implementing the Action

Cost Estimate: \$0.00

Priority: Low

Scale of Ease of Implementation: Medium

Responsible Party: Monmouth County

Local Planning Mechanism: Hazard Mitigation Plan

Likely Funding Source(s): County budget

Timeline: 3 years

Action Status: New

Notes:

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_20

Monmouth County

Describing the Action

Action Name:	Coordinate with the Monmouth County Chamber of Commerce to Improve Business Response Post Disaster
Action Category:	Administrative
Action Type:	Local Plans and Regulations
HMA Eligible Activity:	Miscellaneous/Other/NA
Action Description:	Work with the Chamber of Commerce to improve business response to disruption and preparedness from disasters.

Evaluating the Action

Hazard(s) Addressed:	All Hazards
Goals:	2, 3, 7
Risk Reduction:	
Technical:	Technically feasible.
Political:	No political opposition is known.
Legal:	No legal obstacles.
Environmental:	No known negative environmental impacts.
Social:	Communities and the public would benefit from increased government capacity.
Administrative Capability:	Administrative capacity would be strengthened.
Local Champion:	Monmouth County Division of Planning
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	
Priority:	Low
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County, Monmouth Regional Chamber of Commerce
Local Planning Mechanism:	
Likely Funding Source(s):	County budget
Timeline:	3 years
Action Status:	New
Notes:	

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_21

Monmouth County

Describing the Action

Action Name:	Repair, Remove, or Rehabilitate the Allentown Dam
Action Category:	Mitigation - Risk Reduction
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Localized Flood Risk Reduction Projects
Action Description:	Repair, remove, or rehabilitate Allentown Dam, a High-Hazard Potential Dam, located along Doctors Creek.

Evaluating the Action

Hazard(s) Addressed:	Dam Failure
Goals:	1, 2, 3
Risk Reduction:	NJDEP classifies Allentown Dam to be a High-Hazard Potential, meaning failure of the dam may result in probable loss of life and/or extensive property damage.
Technical:	Technically feasible.
Political:	No adverse political ramifications are expected.
Legal:	May require coordination with NJDEP.
Environmental:	Minor environmental impacts expected.
Social:	No adverse social impact anticipated.
Administrative Capability:	County has sufficient capacity and experience to administer this action.
Local Champion:	OEM, Engineering
Other Community Objectives:	
STAPLEE Evaluation:	10

Implementing the Action

Cost Estimate:	\$0.00
Priority:	High
Scale of Ease of Implementation:	High
Responsible Party:	Monmouth County, owns dam
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	County budget, NJDEP Bureau of Dam Safety and Flood Control
Timeline:	3 years
Action Status:	New
Notes:	FEMA has a National Dam Safety Program with funding available to High-Hazard Potential Dams, however, the Allentown Dam does not qualify for funding at the time of this plan update.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_22

Monmouth County

Describing the Action

Action Name:	Repair, Remove, or Rehabilitate the Lake Topanemus Dam in Freehold Township
Action Category:	Mitigation - Risk Reduction
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Localized Flood Risk Reduction Projects
Action Description:	Repair, remove, or rehabilitate Lake Topanemus Dam, a High-Hazard Potential Dam, located along McGellaird's Brook.

Evaluating the Action

Hazard(s) Addressed:	Dam Failure
Goals:	1, 2, 3
Risk Reduction:	NJDEP classifies Lake Topanemus Dam to be a High-Hazard Potential, meaning failure of the dam may result in probable loss of life and/or extensive property damage.
Technical:	Technically feasible.
Political:	There are no anticipated political implications.
Legal:	May require coordination with NJDEP.
Environmental:	Minor environmental impacts expected.
Social:	No adverse social impact anticipated.
Administrative Capability:	County has sufficient capacity and experience to administer this action.
Local Champion:	OEM, Engineering
Other Community Objectives:	
STAPLEE Evaluation:	10

Implementing the Action

Cost Estimate:	\$0.00
Priority:	High
Scale of Ease of Implementation:	High
Responsible Party:	Monmouth County, owns dam
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	County budget, NJDEP Bureau of Dam Safety and Flood Control
Timeline:	3 years
Action Status:	New
Notes:	FEMA has a National Dam Safety Program with funding available to High-Hazard Potential Dams, however, the Lake Topanemus Dam does not qualify for funding at the time of this plan update.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_23

Monmouth County Public Works & Engineering

Describing the Action

Action Name:	Construct a Fueling Station at Highway District #6 in Eatontown
Action Category:	
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Structure Elevation
Action Description:	Monmouth County has strategically located highway district yards throughout the County, which have provided fuel not only to County Municipal fleets, but during disaster events, to the National Guard, Federal Emergency Management Agency, and Local Police, Fire, Ambulatory, and Rescue vehicles. The construction of a fueling station at Highway District #6 in Eatontown would provide fuel in a central and critical area of Monmouth County. To mitigate (i.e. lessen the damage/cost) the results as a flooding event it is necessary to have a source of available fuel for vehicles.

Evaluating the Action

Hazard(s) Addressed:	All Hazards
Goals:	3, 7
Risk Reduction:	Lack of fuel supply in a key location of Monmouth County, which is detrimental to operational and emergency services provided during a time of disaster or crisis.
Technical:	Technically feasible.
Political:	No adverse political implications.
Legal:	No legal impediments.
Environmental:	Does not adversely affect the environment.
Social:	Does not adversely affect any particular social group. The benefits of adding this fuel facility includes, but is not be limited to, direct fuel access for emergency vehicles during disaster events, significantly improved emergency response time, and overall enhanced effectiveness of the County's ability to respond to the community's needs both during critical events and continuing through recovery efforts.
Administrative Capability:	Staff of Monmouth County Division of Public Works Engineering would oversee and coordinate the activities of the various consulting firms hired to perform the required work.
Local Champion:	Monmouth County Public Works Engineering
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$500,000.00
Priority:	
Scale of Ease of Implementation:	
Responsible Party:	Monmouth County Department of Public Works & Engineering
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	County funded only.
Timeline:	
Action Status:	Completed
Notes:	

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_24

Monmouth County Public Works & Engineering

Describing the Action

Action Name:	Purchase and Install Generators at County Highway District Facilities
Action Category:	Mitigation - Continuity of Fuctional Use
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Generators
Action Description:	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 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.

Evaluating the Action

Hazard(s) Addressed:	All Hazards
Goals:	3, 7
Risk Reduction:	Telecommunication and electrical systems at key Monmouth County Operational Buildings are negatively impacted during periods of power failure (interruption or loss of electrical service caused by disruption of power transmission caused by accident, sabotage, natural hazards, or equipment failure).
Technical:	The installation of emergency generators is technically feasible.
Political:	There are no anticipated political implications.
Legal:	There are no anticipated legal implications.
Environmental:	There are no anticipated negative environmental implications.
Social:	Does not adversely affect any particular social group. The social benefit would be both tangible (i.e. the real effects of a coordinated effort during a disaster resulting in power outages) as well as intangible (i.e. the security of the public in knowing the government offices responsible for their health and well-being are operational and emergency services are being provided).
Administrative Capability:	Staff of Monmouth County Division of Engineering & Traffic Safety would oversee and coordinate the activities of the various consulting firms hired to perform the required work to install the generators are to provide any maintenance to the equipment needed following installation.
Local Champion:	Monmouth County Public Works & Engineering
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$2,000,000.00
Priority:	Medium
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Department of Public Works & Engineering
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	FEMA HMA
Timeline:	1 year
Action Status:	Ongoing
Notes:	Ongoing 2015 action; funding has been an issue however the County will continue to search for grants. Currently none of the highway districts have generators.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_25

Monmouth County Public Works & Engineering

Describing the Action

Action Name:	Rehabilitate and Upgrade Dams to Meet Current NJDEP Bureau of Dam Safety Standards
Action Category:	Mitigation - Continuity of Fuctional Use
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Infrastructure Retrofit
Action Description:	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 safety 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; 2) Matawan Lake Dam, County Bridge MA-13, Main St. (CR 516), Matawan; 3) Perrineville Dam, County Bridge MS-48, Perrineville Rd. (CR 1), Millstone; 4) Shadow Lake Dam, County Bridges MT - 30 MT-45, Hubbard Ave. (CR 12), Middletown; 5) Indian Dam, County Bridge U-18, Church St. (CR 526), Allentown; and 6) Hurley Pond Dam, County Bridge W18, Allenwood Rd., Wall.

Evaluating the Action

Hazard(s) Addressed:	Dam Failure, Flood, Nor'easter, Hurricane and Tropical Storm
Goals:	1,2,3,5,7
Risk Reduction:	Dam overtopping and downstream flooding. Address the capacity and integrity of NJDEP defined Class 1 dams (those structures which, should they fail, would likely cause loss of life) and Class 2 dams (those structures which, should they fail, would likely cause substantial downstream property damage but are not considered to be a threat to life) as well is the associated bridge and roadways.
Technical:	Technical feasibility will be addressed during the design phase.
Political:	Monmouth County does not own the primary dam structure however is identified as a co-owner of various dams with respective municipalities. Appropriate agreements will be executed prior to design rehabilitation of each dam.
Legal:	Jurisdictional issues would be identified and addressed, and the appropriate agreements executed prior to project commencement.
Environmental:	Construction would be in accordance with all related laws and authorities and would be in compliance with any of the permitting issued by the appropriate regulatory agencies. The results of the project would ultimately benefit the environment, as less roadway debris would be washed into the surrounding surface waters.
Social:	These projects would provide for safe passage to all members of the public who utilize these roadways, as well as maintain the recreational value derived from the water impounded to create the associated lakes (i.e. fishing, canoeing and other active and passive recreation).
Administrative Capability:	Staff of Monmouth County Public Works Engineering would oversee and coordinate the activities of the various consulting firms hired to perform the required work or work in coordination with the consultants hired by the local municipality.
Local Champion:	Monmouth County Department of Public Works Engineering, with the cooperation with the local municipalities.
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	
Priority:	High
Scale of Ease of Implementation:	High
Responsible Party:	Monmouth County Department of Public Works & Engineering
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	FEMA HMA, NJDEP Bureau of Dam Safety and Flood Control, FEMA's High-Hazard Potential Dam Grant Program
Timeline:	3 years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; dam status below.

Lake Lefferts: ongoing, revised agreement to advance design and rehabilitation
Matawan Lake: ongoing, in discussion phase to advance design and rehabilitation
Perrineville Rd: ongoing, preparing RFP, reviewing scope work with County Park System
Shadow Lake: in discussion with Middletown
Indian Lake: initiating discussions with owners regarding cost sharing for design phase
Burley Pond: initiating discussions with owners regarding cost sharing for design phase
Lake Louise: agreement with Howell, design phase ongoing

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_26

Monmouth County Public Works & Engineering

Describing the Action

Action Name:	Purchase and Install Generator at Monmouth County Hall of Records Building and Human Services
Action Category:	Mitigation - Continuity of Fuctional Use
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Generators
Action Description:	Installation of permanent emergency generators at Monmouth County Hall of Records (Freehold Borough) and Human Services Building (Freehold Township). These generators will be designed to handle all potential electrical loads at these buildings thereby ensuring uninterrupted continuity of County government and response to the emergency at hand.

Evaluating the Action

Hazard(s) Addressed:	All Hazards
Goals:	1, 2, 5, 7
Risk Reduction:	Telecommunication and electrical systems at key Monmouth County Administration Buildings are negatively impacted during periods of power failure (interruption or loss of electrical service caused by disruption of power transmission caused by accident, sabotage, natural hazards, or equipment failure).
Technical:	The installation of emergency generators is technically feasible.
Political:	There are no anticipated political implications.
Legal:	There are no anticipated legal implications.
Environmental:	There are no anticipated negative environmental implications.
Social:	The social benefit would be both tangible (i.e. the real effects of o coordinated effort during a disaster resulting in power outages) as well as intangible (i.e. the security of the public in knowing the government offices responsible for their health and well-being are operational and emergency services are being provided).
Administrative Capability:	Staff of Monmouth County Public Works & Engineering would oversee and coordinate the activities of the various consulting firms hired to perform the required work to install the generators or to provide any maintenance to the equipment needed following installation.
Local Champion:	Monmouth County
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$1,110,000.00
Priority:	
Scale of Ease of Implementation:	
Responsible Party:	Monmouth County Department of Public Works & Engineering
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	HMGP, PDM, and County match, whether it be financial or in-kind in-house labor or both.
Timeline:	
Action Status:	Completed
Notes:	HMGP grant awarded to Hall of Records: \$400,000 HMGP grant awarded to Monmouth County Clerk's Office \$12,096

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_27

Monmouth County Public Works & Engineering

Describing the Action

Action Name:	Replace or Elevate County Bridges and Culverts
Action Category:	Mitigation - Continuity of Functional Use
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Infrastructure Retrofit
Action Description:	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.

Evaluating the Action

Hazard(s) Addressed:	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge
Goals:	1, 2, 3, 5, 6, 7
Risk Reduction:	Road flooding results in damage to infrastructure reduced safe passage and isolation of neighborhoods by flood waters.
Technical:	Technical feasibility will be addressed during the design phase.
Political:	There are no known political implications, at this time. All work would be in agreement with the local municipalities.
Legal:	Following design, jurisdictional issues would be identified and addressed, and the appropriate agreements and right-of-entries would be acquired.
Environmental:	Construction would be in accordance with all related laws and authorities and would be in compliance with any of the permitting issued by the appropriate regulatory agencies. The result of the projects would ultimately benefit the environment, as less roadway chemicals and debris would wash into the surface waters.
Social:	These projects would provide for safe passage to all members of the public who utilize these roadways.
Administrative Capability:	Staff of Monmouth County Public Works Engineering would oversee and coordinate the activities of the various consulting firms hired to perform the required work.
Local Champion:	Monmouth County Public Works Engineering and local municipalities
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	
Priority:	Medium
Scale of Ease of Implementation:	Medium
Responsible Party:	Monmouth County Department of Public Works & Engineering
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	FEMA HMA, NJDOT
Timeline:	3 years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; status of bridges and culverts below. Palmer Ave (CR-7): bridge H-5A, construction is ongoing, should be completed in Fall 2019 Aberdeen Rd – Bridge (MA-11): cost share agreement in place, will advance to design phase once cost share is executed (Lake Lefferts issue) Station Rd – Bridges (ML-17, ML-18, & ML-19): design phase is ongoing Union Ave – Bridge (R-5): design phase is ongoing, DEP permit issues

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_28

Monmouth County Public Works & Engineering

Describing the Action

Action Name:	Inspect and Maintain the Structural Integrity of County Infrastructure
Action Category:	Maintenance/Response/Recovery
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Floodplain and Stream Restoration
Action Description:	Hard armoring of creek and river banks 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.

Evaluating the Action

Hazard(s) Addressed:	Flood, Extreme Wind, Nor'easter, Hurricane and Tropical Storm
Goals:	1, 2, 4, 5, 6, 7
Risk Reduction:	Storm events and subsequent flooding wash substantial amounts of debris and sedimentation in creeks and waterways, compounding the effects of natural siltation and buildup of debris and fallen trees, which obstruct the natural flow of some surface waters, resulting in increased inland and coastal flooding.
Technical:	These activities are economically defensible and technically sound.
Political:	There are no anticipated political implications. Coordination with the municipalities would be arranged prior to activities, if necessary.
Legal:	Work is typically performed in the County Right-of-Way.
Environmental:	There are no anticipated environmental detriments. Activities to reduce or address surface water flow blockages enhance the environment, as surface waters that flood adjacent lands (including residential, commercial and agricultural areas) decrease water quality through increased turbidity and nonpoint source pollution.
Social:	This project would provide for safe passage to all members of the public who utilize this roadway and protect surrounding property owners.
Administrative Capability:	Work is routinely performed with staff and equipment from the Monmouth County Department of Public Works & Engineering.
Local Champion:	Monmouth County Department of Public Works & Engineering and local municipalities.
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	
Priority:	Medium
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Department of Public Works & Engineering and local municipalities.
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	County budget
Timeline:	2 years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; the County is searching for funding to remove debris from underneath low-lying bridges and culverts, clear sediment build-up, repair embankment erosion, and repair and clean stormwater drains.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_29

Monmouth County Public Works & Engineering

Describing the Action

Action Name:	Install Hard-armoring on County Bridges that Experience Coastal Erosion
Action Category:	Mitigation - Continuity of Fuctional Use
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Soil Stabilization
Action Description:	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 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).

Evaluating the Action

Hazard(s) Addressed:	Wave Action, Coastal Erosion, Nor'easter, Hurricane and Tropical Storm, Storm Surge
Goals:	1, 2, 3, 5, 6
Risk Reduction:	Structural integrity of bridges that are exposed to wave action, tidal, and storm surges. These bridges may carry coastal evacuation routes and any damage to the bridge may impair safe passage, ultimately jeopardizing human life.
Technical:	Technical feasibility will be addressed during the design phase.
Political:	There are no known political implications, at this time. All work would be in agreement with the local municipalities.
Legal:	Following design, jurisdictional issues would be identified and addressed, and the appropriate agreements and right-of-entries would be required, if needed.
Environmental:	Construction would be in accordance with all related laws and authorities and would be in compliance with any of the permitting issued by the appropriate regulatory agencies. The results of the project would ultimately benefit the environment, as less roadway debris and fill would be washed into the surrounding surface waters.
Social:	This project would provide for safe passage to all members of the public who utilize this roadway.
Administrative Capability:	Staff of Monmouth County Public Works Engineering would oversee and coordinate the activities of the various consulting firms hired to perform the required work.
Local Champion:	Monmouth County Department of Public Works Engineering, with the cooperation of and/or agreement with the local municipalities.
Other Community Objectives:	These coastal bridges are highly trafficked during the summer months by vehicles, bicycles, and pedestrians alike and experience increased use due to seasonal tourism. These bridges also span navigable waterways that accommodate boat traffic. The foot of these bridges may also serve as a place for fishermen, sunbathers, and those enjoying other beach activities.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	
Priority:	Medium
Scale of Ease of Implementation:	Medium
Responsible Party:	Monmouth County Department of Public Works & Engineering
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	FEMA HMA
Timeline:	2 years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; the County is searching for funding to improve the structural integrity of their bridges.

Monmouth County Mitigation Action Worksheets

Community Action Number: 54_30

Monmouth County Public Works & Engineering

Describing the Action

Action Name:	Elevate Highway District #8 Office in Hazlet
Action Category:	Mitigation - Risk Reduction
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Structure Elevation
Action Description:	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.

Evaluating the Action

Hazard(s) Addressed:	Flood, Nor'easter, Hurricane and Tropical Storm
Goals:	1, 2, 3, 5, 7
Risk Reduction:	The critical equipment stored in these buildings may be compromised by floodwater, therefore could be detrimental to operational and emergency services provided during a time of disaster or crisis.
Technical:	Technical feasibility would be vetted out during design.
Political:	There are no anticipated political implications.
Legal:	There are no anticipated legal implications.
Environmental:	Construction would be in accordance with all related laws and authorities and would be in compliance with any of the permitting issued by the appropriate regulatory agencies.
Social:	The social benefit would be both tangible (i.e. the real effects of a coordinated effort during a disaster) as well as intangible (i.e. the security of the public in knowing that government facilities are operational and emergency services are being provided).
Administrative Capability:	Staff of Monmouth County Division of Public Works & Engineering would oversee and coordinate the activities of the various consulting firms hired to perform the required work.
Local Champion:	Monmouth County Public Works & Engineering
Other Community Objectives:	
STAPLEE Evaluation:	10

Implementing the Action

Cost Estimate:	\$600,000.00
Priority:	Medium
Scale of Ease of Implementation:	Low
Responsible Party:	Monmouth County Public Works & Engineering
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	FEMA HMA
Timeline:	2 years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; the County is searching for funding to mitigate Highway District #8.

CAPABILITY ASSESSMENT WORKSHEET

Name: Michael Oppegaard

Title: Emergency Management Coordinator

Jurisdiction: Monmouth County

Organization:

Local Mitigation Capabilities are existing authorities, policies, programs, and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.

Planning & Regulatory

Planning and Regulatory Capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards. Please indicate which of the following your jurisdiction currently has in place.

Plan	Yes/No	<ol style="list-style-type: none"> What is the date/year of the plan? Does the plan address hazards? Does the plan identify projects to include in the mitigation strategy? Can the plan be used to implement mitigation actions?
Comprehensive/Master Plan	Yes	<ol style="list-style-type: none"> 2016; there is a Community Resiliency chapter of the master plan in each chapter of the plan, resiliency is discussed (e.g. resiliency and art, resiliency and transportation) Yes, adopted HMP Yes Yes
Capital Improvements Plan	Yes	<ol style="list-style-type: none"> 2019 No No Yes
Economic Development Plan	Yes	Yes, an element of the Monmouth County Master Plan (2016); discusses the relationship between economic development and resiliency.
Local Emergency Operations Plan	Yes	<ol style="list-style-type: none"> 2017 Yes Yes Yes
Continuity of Operations Plan	Yes	
Post-Disaster Recovery Plan	No	
Transportation Plan	Yes	Yes, an element of the Monmouth County Master Plan (2016); discusses the relationship between transportation and resiliency.



CAPABILITY ASSESSMENT WORKSHEET

Stormwater Management Plan	Yes	Wastewater Management Plan (WMP) for Monmouth County Future Wastewater Service Area (FWSA) Map (2013); each jurisdiction is required by NJDEP to adopt their own stormwater plan.
Community Wildfire Protection Plan	No	Municipalities enforce their own local wildfire protection plans.
Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)	Yes	<ul style="list-style-type: none"> Disaster Debris Management Plan (2017): the first Debris Management Plan in NJ Monmouth County Multi-Jurisdictional Coastal Flood Evacuation Plan (2017) Monmouth-Ocean County Building Officials Association Incident Action Plan (2015) Shore Re-Entry Plan (2012) Coastal Monmouth Plan (2010) Monmouth Coastal Evacuation Routes Study (2009) Damage Assessment Plan Short Term Recovery Plan State Rodeo MCSO-PSC
Building Code, Permitting, and Inspections	Yes/No	Are codes adequately enforced?
Building Code	No	Enforced by NJ Department of Community Affairs.
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	Enforced by NJ Department of Community Affairs.
Fire Department ISO rating	No	Enforced by NJ Department of Community Affairs.
Site Plan Review Requirements	Yes	Enforced by the Monmouth County Development Regulations (2004).
Land Use Planning and Ordinances	Yes/No	Is the ordinance an effective measure for reducing hazard impacts? Is the ordinance adequately administered and enforced?
Zoning Ordinance	No	Municipalities enforce their own local zoning ordinances.
Subdivision Ordinance	No	Municipalities enforce their own subdivision ordinances.
Floodplain Ordinance	No	Municipalities enforce their own local floodplain ordinances.



CAPABILITY ASSESSMENT WORKSHEET

Natural hazard ordinance (stormwater, steep slope, wildfire)	No	Municipalities enforce their own natural hazard ordinances.
Flood Insurance Rate Maps	No	Each municipality must adopt FEMA's FIRMs.
Acquisition of Land for Open Space and Public Recreation Uses	Yes	Enforced by the Monmouth County Farmland Preservation Program.
Post-Disaster Recovery Ordinance	No	Municipalities enforce their own post-disaster recovery ordinances.
Real Estate Disclose Ordinance	No	Municipalities enforce their own natural hazard ordinances.
Other (ie. Special Purposes Ordinance)	Yes	Special Purposes Ordinance
How can the above capabilities be expanded and improved to reduce risk?		
Monmouth County could adopt a Continuity of Operations and Post-Disaster Recovery Plan to increase their capabilities.		

Administrative & Technical

Identify whether your community has the following administrative and technical capabilities. These include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions. For smaller jurisdictions without local staff resources, if there are public resources at the next higher-level government that can provide technical assistance, indicate so in your comments.

Administration	Yes/No	Describe capability Is coordination effective?
Planning Commission	Yes	The Monmouth County Planning Board adopted the 2015 Hazard Mitigation Plan as an element of their Master Plan (2016).
Mitigation Planning Committee	Yes	Stormwater Technical Advisory Committee JLUS TAC
Maintenance Programs to Reduce Risk (e.g., tree trimming, clearing drainage systems)	Yes	Effective coordination through the Public Works & Engineering Department on county-owned drainage cleaning programs. M. Extermination – Vicki Thompson Route desnagging & ditching
Mutual Aid Agreements	Yes	Effective coordination through the Emergency Intra-County Mutual Aid Agreement. This is a FEMA approved agreement. 53 mutual aid agreements. When towns update their EOP (every 4 years) they must also recertify the mutual aid agreement with the County.



CAPABILITY ASSESSMENT WORKSHEET

Staff	Yes/No FT/PT	Is the staff full time or part time? Is staffing adequate to enforce regulations? Is the staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Chief Building Official	No	Regulated NJ Department of Community Affairs
Floodplain Administrator	Yes	The County has Certified Floodplain Managers (CFM) on staff including the Assistant Director of Planning.
Emergency Manager	Yes	1. Full time, Office of Emergency Management 2. Yes 3. Yes 4. Yes
Community Planner	Yes	1. Full time, Division of Planning 2. Yes 3. Yes 4. Yes
Civil Engineer	Yes	1. Full time, Department of Public Works & Engineering 2. Yes 3. Yes 4. Yes
Surveyor	Yes	1. Full time, Department of Public Works & Engineering 2. Yes 3. Yes 4. Yes
GIS Coordinator	Yes	1. Full time, Division of Planning 2. Yes 3. Yes 4. Yes
Scientists familiar with the hazards of the community	Yes	The County partners with local universities, colleges, and research centers on mitigation projects
Other	No	
Technical	Yes/No	Describe capability Has capability been used to access/mitigate risk in the past?
Warning Systems/Services (Reverse 911, outdoor warning signals)	Yes	County OEM has Code Blue and Code Red which effectively alerts residents of extreme temperatures.
Hazard Data and Information	Yes	Monmouth County Division of Planning and Office of Emergency Management websites have a lot of emergency information including Know Your Zone (a public education campaign implemented by County OEM) and the High Water Mark Story Map.
Grant Writing	Yes	Internal County staff apply for grants.



CAPABILITY ASSESSMENT WORKSHEET

Hazus Analysis	Yes	The Division of Planning, GIS Section, has Hazus capabilities
Other	Yes	<ul style="list-style-type: none"> • CERT Leaders Meeting • ETEAM Training • Active Shooter Partnerships and Training for County Staff • Training and Implementation of Fire and EMS operation improvements • EOC Activation Levels • All Hazard Planning Regions • Family Assistance/Reunification • EMAA Grant funded trainings, exercises, and salary reimbursements for emergency responders
How can the above capabilities be expanded and improved to reduce risk?		
The County has ample Administrative & Technical capabilities.		

Financial

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

Funding Resource	Access / Eligibility (Yes/No)	Has the funding resource been used in the past and for what type of activities? Could the resource be used to fund future mitigation actions?
Capital Improvements Project Funding	Yes	Capital Improvements Project Funding can be used to fund future mitigation actions.
Authority to Levy Taxes for Specific Purposes	Yes	
Fees for Water, Sewer, Gas, or Electric Services	No	Regulated at the municipal level and/or through MUAs.
Impact Fees for New Development	Yes	
Stormwater Utility Fee	No	Regulated at the municipal level and/or through MUAs.
Incur Debt Through Private Activities	Yes	Incur Debt through Special Taxes and Revenue Bonds.
Community Development Block Grant	Yes	Community Development Block Grant Disaster Recovery Program can be used to fund future mitigation actions.



CAPABILITY ASSESSMENT WORKSHEET

Other Federal Funding Programs	Yes	DOD Office of Economic Adjustment REPI Funding, ACE funding REPI Funds – DOD
State Funding Programs	Yes	
Other (e.g., withhold spending in hazard-prone areas)	No	
How can these capabilities be expanded and improved to reduce risk?		

Education and Outreach

Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information.

Program/Organization	Yes/No	Describe program/organization and how it relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes	The County partners with local non-profits such as NJ Sea Grant Consortium, American Littoral Society, Surfrider Foundation, and Clean Ocean Action. MCEC- eco tips Storm Water Management Stream Corridor Management Watershed Management
Ongoing Public Education or Information Programs (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	The County OEM hosts Hurricane Training Day (pre-landfall, landfall, recovery scenarios); the County Division of Planning administers the CRS Assistant Program which provides mapping services, outreach, and training to its municipalities.
Natural Disaster or Safety Related School Programs	No	Regulated at the municipal level. Two round tables a year Environmental newsletter High Water Mark
StormReady Certification	No	Certification occurs at the municipal level.
Firewise Communities Certification	No	Certification occurs at the municipal level.
Public-Private Partnership Initiatives Addressing Disaster Related Issues	No	



CAPABILITY ASSESSMENT WORKSHEET

Other		
How can these capabilities be expanded and improved to reduce risk?		





MEETING NOTES

Topic: Monmouth County HMP Meeting

Date: July 25, 2019

Time: 2:30 PM- 3:30 PM

Location: County OEM Office; 2000 Kozloski Rd. Freehoild,, NJ

Drafted by: Paige Kaspar

Introductions:

- What is Hazard Mitigation?
- Matching actions with Goals
- New Hazards
- HMP Pamphlet
- Funding

Mitigation Actions:

Monmouth County Public Works & Engineering = #55

- Community Action 54_01 – Provide assistance to NFIP’s Community Rating system (CRS) – Ongoing
 - Add to capabilities
 - Will receive a write up on MoCo’s program
- Community Action 54_02 – Support Municipal Floodplain Management Planning – Ongoing
 - Compliments CRS
- Community Action 54_03 – Online Mapping Services – Ongoing
 - Add to capabilities
 - County is working on setting up Open Source Mapping
- Community Action 54_04 – Protect and Restore Claypiut Creek and Portland Place – Ongoing
 - Plans have taken two years to put in place
 - Work should be beginning in September
- Community Action 54_05 – Acquisition of flood prone properties – Ongoing
 - Continue to purchase properties
 - Manasquan, Metedeconk
 - Acquired 225 Forno Park in Aberdeen
- Community Action 54_06 – Create and repair coastal dunes – Ongoing



- Community Action 54_07 – Floodplain restoration and re-stabilizing for Ramanessin Brook, Pine Brook, Meandering Creek, and Manasquan River – Ongoing
 - ENA program Earle/County
- Community Action 54_08 – Fire Hazard Reduction – Ongoing
 - Land clearing and controlled burns in Turkey Swamp Park two years ago
 - Coordination with Fire Marshal Office & State Forest Fire
 - Add FireWise
- Community Action 54_09 – Henry Hudson Shoreline and Slope Stabilization – Ongoing
 - Floodwall along access route
- Community Action 54_10 – Improve physical and operational preparation and county evacuation routes – Ongoing
 - Purchase lights
 - GIS – coastal evacuation signs/zones
 - Know your zones
 - Route completed: CR 14 (West Park Ave) Corridor
 - Routes ongoing: CR 8A & CR 8B, CR 12 & CR 50, CR 12A, CR 14 from SR 18 to Cotswold Circle, CR 16 & Fox Chase Dr, CR 516, CR 520 (Bridge S-32), CR 520 (Bridge H-39), CR 520 & Conover Rd, CR 520 & Wyncrest Rd, CR 537 (Bridge A-44), CR 537 & SR 34 (Bridge A -18 & 1308-152), CR 537 & Jackson Ter & Jackson St, CR 537 (between SR 9 & Sentinel Rd), CR 537 & CR 524 (Elton-Adelphia Rd), CR 537 & CR 524 (Stage Coach Rd.)
- Community Action 54_11– Hazard Education and Risk Awareness – Ongoing
 - High water mark sign
 - Know your zone
 - CRS outreach
- Community Action 54_12– Shelter Hardening for Wind Damage – Ongoing
 -
- Community Action 54_13 – Construct a fueling station at highway district #6 in Eatontown – Completed
 - County funded only
- Community Action 54_14– Generators at county highway district facilities - Ongoing
 - Currently no facilities have generators
 - Looking for funding
 - Need a list
- Community Action 54_15 – Rehabilitate and upgrade dams – Ongoing
 - Dam spillways is connected to county bridge
 - High Hazard Dam
 - Lake Lefferts – ongoing, revised agreement to advance design and rehabilitation
 - Matawan Lake – ongoing, in discussion to advance design and rehabilitation
 - Perrineville Rd – ongoing, preparing RFP, reviewing scope of work with MC Park System
 - Shadow Lake – in discussion with Middletown
 - Indian Lake – Initiating discussions with owners regarding cost sharing for design phase



- Hurley Pond – Initiating discussions with owners regarding cost sharing for design phase
 - Lake Louise – Agreement with Howell, design phase is ongoing
- Community Action 54_16– Generator at Monmouth County Hall of Records building and human services – Completed
 - Sandy Infrastructure
 - Will check status?
- Community Action 54_17– Replace or elevate county bridges and culverts – Ongoing
 - Palmer Ave (CR 7) – Bridge H-5A, construction is ongoing, should be completed in Fall 2019
 - Aberdeen Rd – Bridge MA-11, cost share agreement in place, will advance to design phase once cost share is executed (Lake Lefferts issue)
 - Station Rd – Bridges ML-17, ML-18, & ML-19, design phase is ongoing
 - Union Ave – Bridge R-5, design phase is ongoing, DEP permit issues
- Community Action 54_18– Inspect and Maintain the structural integrity of county infrastructure – Ongoing
 - Need to get an update from DPW
- Community Action 54_19 – Scour/Embankment protection and repairs – Ongoing
- Community Action 54_20– Elevate highway district #8 office in Hazlet – Ongoing
- New Actions:
 - Bundled RL/SRL action
 - Managing of finances surge
 - How to distribute funds and maintain
 - What is the capacity for the county to manage the money that is coming in for the grants
 - More staff
 - The responsibility for passing on grant money fell on the Community Development office
 -
- Successes
 - Received funding and will begin work on restoring Claypiut Creek and Portland Place in September 2019
 - Rehabilitating dams are ongoing with several dams in the design phase