



Content

Section 6. Mitigation Strategy.....6-1

- 2014 Plan Update Changes 6-1
- 6.1 Goals and Objectives..... 6-1
- 6.2 State Capability Assessment..... 6-5
 - 6.2.1 Pre- and Post-Disaster Hazard Management Organization, Policies, Programs and Capabilities 6-5
 - 6.2.2 Laws, Regulations, Policies, and Programs6-25
 - 6.2.3 New Programs and Changes in Capabilities.....6-39
- 6.3 Local Capability Assessment.....6-42
 - 6.3.1 Local Capability Overview6-42
 - 6.3.2 Mitigation Project Overview6-48
- 6.4 Mitigation Actions.....6-53
 - 6.4.1 Recent Mitigation Accomplishments6-53
 - 6.4.2 Progress of Previous Actions.....6-54
 - 6.4.3 New Mitigation Actions.....6-93
 - 6.4.4 Prioritizing Mitigation Actions6-107
- 6.5 Funding Sources6-113

Tables

- Table 6-1. Comparison of 2011 State Goals to Local County Hazard Mitigation Plan Goals 6-2
- Table 6-2. Goals and Objectives for the 2014 State Hazard Mitigation Plan 6-4
- Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities..... 6-7
- Table 6-4. Federal Mitigation Laws and Regulations that Impact Development in Hazard Prone Areas6-26
- Table 6-5. State Mitigation Laws and Regulations that Impact Development in Hazard-Prone Areas6-28
- Table 6-6. New Jersey Policies that Impact Local Hazard Mitigation Efforts – Land Use Planning Policy6-43
- Table 6-7. New Jersey Policies that Impact Local Hazard Mitigation Efforts – Floodplain Management and Building Codes Policies.....6-44
- Table 6-8. New Jersey Policies that Impact Local Hazard Mitigation Efforts – Growth and Shoreline Management Policies.....6-45
- Table 6-9. New Jersey Policies that Impact Local Hazard Mitigation Efforts – Critical Area Protection Policy6-46
- Table 6-10. 2011– 2013 Hazard Mitigation Planning and Project Grants6-49
- Table 6-11. 2011 Mitigation Actions Completed6-56
- Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan.....6-57
- Table 6-13. Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities6-75
- Table 6-14. New Mitigation Actions for the 2014 Plan6-96
- Table 6-15. Prioritization of New Actions Added to the 2014 Plan.....6-109
- Table 6-16. Funding Sources Available for Mitigation Activities6-114
- Table 6-17. State Grant and Loan Funds..... 6-119



Figures

Figure 6-1. New Jersey Office of Emergency Management Organization Chart6-21



Section 6. Mitigation Strategy

2014 Plan Update Changes

- The 2011 Mitigation Strategy was located in Section 5. The 2014 Mitigation Strategy is located in Section 6.
- In November 2013, NJOEM submitted an amendment to FEMA Region II on the 2011 Plan.
 - A sixth goal and corresponding objectives were added.
 - A new mitigation action was added: Support efforts to encourage enhanced energy resiliency for critical assets and facilities in New Jersey.
- The goals and objectives were revised to more closely align with the State's current priorities.
- Local HMPs were reviewed and where available local legal and regulatory capability information was extracted and compiled.
- The State and local capability assessments were updated.
- A new section was added featuring new State programs and changes and capabilities
- A revised STAPLEE was used to evaluate and prioritize new mitigation actions.
- Funding sources updated and expanded.

The Mitigation Strategy outlined in Section 6 of this Plan is New Jersey's blueprint for reducing potential future losses from hazards. The Mitigation Strategy provides information to guide State decision making regarding the protection of critical State facilities. State mitigation strategies also guide local hazard mitigation planning. The Mitigation Strategy consists of:

- A description of the State's hazard mitigation goals and objectives to guide the selection of activities that will mitigate identified hazards and reduce future losses
- Strategies that will lead to the identification, evaluation, and prioritization of mitigation actions and activities
- Strategies that will lead to the identification of current and future sources of federal, State, local, and private funding to implement mitigation activities

Reference to the stated strategies will permit the evaluation of the State of New Jersey's (1) pre- and post-disaster hazard management policies, programs, and capabilities to mitigate hazards; and (2) laws, regulations, policies, and programs related to hazard mitigation and land development in hazard-prone areas.

6.1 Goals and Objectives

44 CFR 201.4(c)(3)(i): A description of State goals to guide the selection of activities to mitigate and reduce potential losses.

44 CFR 201.4(d): Plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities

For this 2014 Hazard Mitigation Plan (HMP) update, the Mitigation Core Team (MCT) and State Hazard Mitigation Team (SHMT) met on numerous occasions to discuss the State's goals and objectives. Overall, the MCT determined that all of the 2011 mitigation goals continue to align with the State's priority to reduce potential future losses from hazards; however, some additions and enhancements are needed. On July 16, 2013, MCT began evaluating the 2011 mitigation goals and objectives. The 2011 goals were compared to goals used in the local jurisdiction HMPs, as discussed in Section 3, Coordination of Local Planning. Table 6-1 compares



the goals of the 2011 State HMP with goals presented in local county HMPs. Overall, the local HMP goals aligned with the 2011 State HMP goals.

Table 6-1. Comparison of 2011 State Goals to Local County Hazard Mitigation Plan Goals

County	2011 State HMP Goals				
	Protect life	Protect property	Increase public preparedness	Develop and maintain an understanding of risks from natural hazards	Enhance capabilities to make New Jersey less vulnerable to hazards
Atlantic	x	x	x	x	x
Bergen	x	x	x		
Burlington	x	x	x	x	x
Camden	x	x	x	x	x
Cape May	x	x	x	x	x
Cumberland	x	x	x	x	x
Essex	x	x	x	x	x
Gloucester	x	x	x	x	x
Hunterdon	x	x	x	x	x
Hudson	x	x	x		x
Mercer	x	x	x	x	x
Middlesex	x	x	x	x	x
Monmouth	x	x	x	x	x
Morris	x	x	x	x	x
Ocean	County Plan In Progress				
Passaic	x	x	x	x	x
Salem	x	x	x	x	x
Somerset	x	x	x		x
Sussex	x	x	x	x	x
Union	x	x	x	x	x
Warren	x	x	x	x	x



On November 1, 2013, the New Jersey Office of Emergency Management (NJOEM) submitted an amendment to the 2011 Plan to Federal Emergency Management Agency (FEMA) Region 2. The amendment proposed that information be added to the Plan regarding the energy and retail fuel resiliency for the State of New Jersey, which will be funded and implemented through the Energy Allocation Initiative and the Sandy HMGP 5% initiative. As part of the amendment, the goals and objectives were revisited and the following goal and corresponding objectives were added as well. However, it was noted in the amendment that the New Jersey State HMP was currently going through an update process and that this goal and the corresponding objectives would be further refined by the MCT and SHMT.

Goal 6 – Continue to enhance and strengthen local mitigation capabilities:

- Support and provide guidance for local hazard mitigation planning and projects.
- Provide technical assistance and training to local governments.
- Encourage the adoption, improvement, and enforcement of local codes, ordinances, and land use planning.
- Ensure integration of mitigation principles and concepts into existing planning mechanisms, codes, and ordinances.
- Encourage planning and the implementation of alternative energy sources, i.e., green initiatives, Leadership in Energy and Environmental Design (LEED) certification.
- Identify and/or provide financial incentives and funding opportunities

The MCT and SHMT continued to refine the goals and objectives now working with the new Goal 6 and incorporated many of these same objectives into existing objectives. Goal 5 was reworded; however, the essence of the goal remained the same. Goal 6 was added to reflect the State's priorities in supporting the continuity of operations before, during, and following hazard events and preventing loss and suffering post disaster by facilitating rapid recovery and building operational resiliency. The objectives were reviewed and either maintained or enhanced both in content and grammar. In addition, two objectives were added to document the State's priorities to continue to encourage cost-effective and environmentally-sound development (Objective 2.4) and to integrate mitigation planning with other planning initiatives (Objective 5.5). All objectives that correspond with Goal 6 are new additions as well. The local HMP goals continue to align with the updated 2014 Plan goals. In fact, they align more closely with the edition of the new Goal 6: 'Support continuity of operations pre-, during, and post- hazard events.' Table 6-2 lists the goals and objectives for the 2014 State HMP update. Goals and objectives that have been added to this update are labeled on the table.



Table 6-2. Goals and Objectives for the 2014 State Hazard Mitigation Plan

Goal	Objective
Goal 1: Protect life	1.1: Improve warning and emergency communications systems
	1.2: Effectively address hazard mitigation issues, laws, and regulations
	1.3: Reduce the impacts of hazards on vulnerable populations
	1.4: Strengthen State and local planning, building codes, ordinances, and enforcement
Goal 2: Protect property	2.1: Protect critical facilities
	2.2: Reduce repetitive and severe repetitive losses
	2.3: Implement hazard mitigation policies to protect environmental resources that serve a natural hazard mitigation function
	2.4: Encourage cost-effective and environmentally-sound development and land use <i>(new to 2014)</i>
Goal 3: Increase public preparedness and awareness	3.1: Improve public awareness of hazards and the risks they pose
	3.2: Improve hazard information databases and maps and increase accessibility to those resources
	3.3: Enhance stakeholder education and training
Goal 4: Develop and maintain an understanding of risks from hazards	4.1: Review and incorporate updated hazard data into the State Hazard Mitigation Plan
	4.2: Increase support for the development of local mitigation planning and projects
	4.3: Incorporate new FEMA guidance, rules, and regulations into the Plan
	4.4: Update the Plan from lessons learned on the national level
Goal 5: Enhance State and local mitigation capabilities to reduce hazard vulnerabilities	5.1: Monitor the progress of on-going mitigation activities by State agencies
	5.2: Provide current information, technical assistance, and incentives for mitigation planning and actions
	5.3: Encourage the formation of partnerships to leverage and share mitigation resources
	5.4: Integrate the State Hazard Mitigation Plan with other State and regional planning initiatives <i>(new to 2014)</i>
Goal 6: Support continuity of operations pre-, during, and post- hazard events <i>(new to 2014)</i>	6.1: Ensure continuity of operations of government, non-government, commerce, private sector, and infrastructure <i>(expansion of former objective 5.4)</i>
	6.2: Increase resiliency by facilitating rapid disaster recovery
	6.3: Encourage planning and the implementation of alternative energy sources



To accomplish the State goals through the mitigation strategy, New Jersey will use the following approach:

- Recognize flooding as the major disaster threat facing the State and use acquisition between a voluntary seller and a public agency as a means to accomplish all of the goals and objectives (with additional Repetitive Loss Strategy information discussed in Section 8).
- Another means of accomplishing the State goals is to offer assistance in the elevation of homes where or when acquisition is not an option.
- Work with county and municipal governments that have an approved local mitigation plan or plans that are nearing completion to develop sound and beneficial projects to alleviate the impacts of all natural disasters, including but not limited to flooding.
- Cooperative focused efforts to address energy and retail fuel resiliency, and continuity of operations
- Coordinated funding efforts

6.2 State Capability Assessment

44 CFR 201.4(c)(3)(ii): The State mitigation strategy shall include ‘A discussion of the State’s pre- and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including: an evaluation of State laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas [and] a discussion of State funding capabilities for hazard mitigation projects ...’

The State capability assessment presents the State’s pre- and post-disaster management policies, programs, and capabilities, an analysis of State funding opportunities to directly support hazard mitigation, and a summary of new programs and changes in State capabilities. Also included in this assessment are analyses of agency capabilities to initiate support and or implement mitigation programs and activities.

Many departments, agencies, and private organizations perform roles valuable to State government disaster resistance and mitigation efforts. Some seemingly unrelated programs are often complimentary to reducing the human and economic cost of disasters. One of the goals of the State Hazard Mitigation Plan and the State of New Jersey is to educate people in both the public and private sectors on the importance of mitigation. The State continually reaches out to residents and business groups concerning mitigation best practices and how-to guidelines.

Training and education are essential to New Jersey’s ability to respond to hazards and must remain a priority within budgetary constraints. Public education reduces the burden on the State by increasing citizen capacity. New Jersey is an active member of the National Citizen Corps program with over 10,000 volunteers in 208 communities. The mission of Citizen Corps is to harness the power of every individual through education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to natural and human-caused disasters.

6.2.1 Pre- and Post-Disaster Hazard Management Organization, Policies, Programs and Capabilities

New Jersey’s statewide hazard mitigation effort is centered in the NJOEM, located in the Division of State Police in the New Jersey Department of Law and Public Safety. NJOEM provides administrative support to the MCT and SHMT. The SHMT operates under Executive Order #115 (Appendix B). Section 2 (Planning Process) describes the roles and responsibilities of the MCT and SHMT as well as many of the agencies summarized below.



A number of federal and State programs support hazard mitigation in New Jersey. The Governor's Office of Recovery and Rebuilding (GORR) was established to lead the recovery efforts after Superstorm Sandy. The GORR taps the institutional knowledge and bandwidth of New Jersey state agencies in recovering from Superstorm Sandy. The working group structure developed by Governor Christie's recovery team is designed to complement the federal long-term recovery structure, allowing the State to efficiently identify federal resources and coordinate New Jersey's recovery. To further facilitate hazard mitigation planning efforts, NJOEM works in cooperation with other governmental agencies and relevant industry groups to provide direction and technical assistance in the development of local and multi-jurisdictional plans and projects.

The following sections include reviews of pre- and post-disaster hazard management capabilities (e.g. responsibilities, programs and initiatives) and development guidance offered through agencies and programs that directly support NJOEM and FEMA's hazard mitigation efforts. A more detailed discussion on NJOEM's pre- and post-disaster programs and capabilities is presented following this summary.

Summary

During the 2014 Plan update, the MCT and SHMT invited participating agencies to identify and update their mitigation-related initiatives. The process for identifying and assessing the State capabilities to support hazard mitigation involved a review of the 2011 State Hazard Mitigation Plan; a survey of available public information; and gathering information from each participating agency. A Capability Assessment Questionnaire was developed and presented to the MCT for review and approval on July 16, 2013. After approval by MCT, the assessment was delivered to agencies on the MCT and SHMT for completion, as well as those agencies that support hazard mitigation throughout the State. New programs, initiatives and capabilities are highlighted in subsection 6.2.3 presented later in this section.

Table 6-3 summarizes the pre- and post-disaster hazard management policies, programs, and capabilities throughout the State. Appendix G contains the results of the Capability Assessment Questionnaire which presents more detailed information for each entity including points of contact, hazards addressed, specific mitigation responsibilities, available technical assistance, role in mitigation and summarizes the most significant State-funded and/or State-administered programs, policies, regulations, or practices related to hazard mitigation or loss reduction by agency, department, or organization.

Some of the listed programs in Table 6-3 provide funding for various hazard mitigation activities. Other State and federal programs or initiatives may support (or assist with the implementation of mitigation actions) or facilitate (make implementing mitigation actions easier) hazard mitigation or loss reduction. The State determined that, where possible, it would provide examples of mitigation support as a measure of effectiveness of the organizations, programs, and policies. Finally, while most of the initiatives and policies are in the form of existing programs, a few new programs are included, although evaluation on their effectiveness is premature. More detailed information on the newer programs is available on the respective department or agency's website.



Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Agency	Hazard	Program	Capability		Effect on Loss Reduction		Provides Funding for Mitigation	Description of Policies, Programs, Funding
			Pre-Disaster	Post-Disaster	Support	Facilitate		
New Jersey Department of Law and Public Safety (LPS)	All	Office of the Attorney General	√	√	√			LPS includes the Office of the Attorney General and the Division of State Police among others. The New Jersey Office of Emergency Management is placed within the Division of State Police. The Office of the Attorney General contributes to loss reduction by participating on the State Hazard Mitigation Team and providing counsel to the Office of Emergency Management.
New Jersey Highlands Council	Flood, Wildfire, Wind	Planning and Science	√	√	√	√	√	Established by the legislature in 2004 as part of the Highlands Water and Protection Planning Act, the Council is charged with the development and oversight of the Highlands Regional Master Plan (RMP). Highlands Council RMP programs support hazard mitigation as related to stream mitigation to avoid flood hazards and forest health hazards. RMP grant funding for forest resource and stream corridor protection and management planning includes identification of restoration, mitigation, and stewardship programming needs and mechanisms.
New Jersey Board of Public Utilities (BPU)	All		√	√	√	√		BPU works with private utility companies to provide analysis of natural hazard information affecting the provision of electric power, telecommunications, public water, sewage collection and treatment, and other regulated public utilities. The data are used during response and recovery efforts in the event of emergency or disaster and is also used to analyze impact of mitigation plans and projects. BPU also provides technical assistance for the Energy Resiliency Program.
New Jersey Department of Banking and Insurance (DOBI)	All		√	√	√			DOBI regulates the banking, insurance, and real estate industries. It provides assistance and, through A07-126, mandates companies authorized to sell homeowner insurance to have a prepared Business Continuation Plan.



Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Agency	Hazard	Program	Capability		Effect on Loss Reduction		Provides Funding for Mitigation	Description of Policies, Programs, Funding
			Pre-Disaster	Post-Disaster	Support	Facilitate		
New Jersey Department of Community Affairs	All		√	√	√	√	√	DCA provides administrative guidance, financial support, and technical assistance to local governments, community development organizations, businesses, and individuals to improve the quality of life. DCA offers a wide range of programs and services that respond to issues of public concern including fire and building safety, housing production, community planning and development, and local government management and finance. DCA's programs and services are provided through, among others, the following Divisions: <ul style="list-style-type: none"> • Division of Codes and Standards • Division of Community Resources • Division of Fire Safety • Division of Local Government Services • Office for Planning Advocacy
New Jersey Department of Education (DOE)	All		√	√	√			New Jersey DOE has oversight and review authority over all public schools in New Jersey. The DOE does not own any property or facilities. All public schools are owned by their respective school districts.
New Jersey Department of Environmental Protection (NJDEP)	All		√	√	√	√		NJDEP coordinates with FEMA, USEPA, NJOEM, NJDSS, and the New Jersey Department of Military and Veterans Affairs, and the NJSP to participate in state, county, and local planning initiatives. NJDEP participates, as a member, in the Regional Catastrophic Planning Team.
New Jersey Department of Environmental Protection (NJDEP)	All	Water Pollution Management Element (WPME)	√	√	√	√	√	WPME is responsible for protecting New Jersey's ground and surface waters from pollution caused by improperly treated wastewater and its residuals primarily through the implementation of the New Jersey Pollutant Discharge Elimination System (NJPDES) permit program. For funding, see New Jersey Environmental Infrastructure Financing Program.



Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Agency	Hazard	Program	Capability		Effect on Loss Reduction		Provides Funding for Mitigation	Description of Policies, Programs, Funding
			Pre-Disaster	Post-Disaster	Support	Facilitate		
New Jersey Department of Environmental Protection	All	Division of Water Supply and Geoscience (DW&GS)	√	√	√	√	√	DW&GS works to ensure that adequate, reliable, and safe water supply is available for the future. This goal is accomplished through the regulation of ground and surface water diversions, permitting of wells, permitting of drinking water infrastructure, monitoring of drinking water quality, and technical support for water systems to achieve compliance with all federal and State standards. In addition, Water Supply staff act in a support role during an emergency situation to provide technical assistance, as needed to re-establish safe and adequate public water supplies. Additionally, DW&GS provides operator licensing and training support as well as financial assistance through the DW State Revolving Fund program. For further funding information, see New Jersey Environmental Infrastructure Financing Program.
New Jersey Department of Environmental Protection	All	WRM, Municipal Finance and Construction Element New Jersey Environmental Infrastructure Financing Program (NJEIFP)	√	√	√	√	√	NJEIFP is a revolving loan program for the construction of drinking water facilities, wastewater treatment facilities, sludge management systems, combined sewer overflow abatement, stormwater, and other non-point source management projects. The program also offers funding to publicly and privately-owned drinking water systems for the construction or upgrade of drinking water facilities, transmission and distribution systems, storage facilities, and source development. NJEIFPT also offers a disaster relief fund that will be able to provide short-term or bridge loans to entities that are in need of an upfront cash flow.
New Jersey Department of Environmental Protection	Flood, Severe Storm, Nor'easter, Hurricane/Tropical Storm	New Jersey Delaware River Flood Mitigation Task Force and Delaware River Basin Commission Interstate Flood	√	√	√			The Task Force reviewed and provided comments on the new Flood Control Act regulations and supports pre- and post-hazard mitigation. The Task Force is as an advisory body for flooding issues.



Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Agency	Hazard	Program	Capability		Effect on Loss Reduction		Provides Funding for Mitigation	Description of Policies, Programs, Funding
			Pre-Disaster	Post-Disaster	Support	Facilitate		
		Mitigation Task Force						
New Jersey Department of Environmental Protection	Flood, Severe Storm, Nor'easter, Hurricane/Tropical Storm	Bureau of Dam Safety and Flood Control	√	√	√	√	√	<p>The Bureau leads the State's efforts as the State NFIP Coordinator and Community Rating System (CRS) support. In addition, the Bureau's responsibilities include the funding of construction and operation of federal/State/local flood control mitigation projects throughout the State, including the 24-hour operation of the Pompton Lakes Dam Flood Gates. The Bureau has also taken a role on the development and adoption of New Jersey Flood Hazard Area mapping, as well as an active partnership with FEMA on their FEMA Map Modernization Program efforts.</p> <p>The Bureau also provides Community Assistance Program/State Support Services Element funding to meet negotiated objectives for reducing flood hazards in NFIP communities. The program requires that participating communities identify, prevent, and resolve floodplain management issues before the issues require compliance action by FEMA.</p>
New Jersey Department of Environmental Protection	Flood, Severe Storm, Nor'easter, Hurricane/Tropical Storm	Open Space and Land Acquisition Programs	√	√	√	√	√	Green Acres/Blue Acres Program - Green Acres and Blue Acres Program acquisition funds are used for the acquisition of repetitive loss and severe repetitive loss structures.
New Jersey Department of Environmental Protection	Flood, Severe Storm, Nor'easter, Hurricane/Tropical Storm	Passaic River Basin Flood Advisory Commission	√	√	√	√	√	Created by Executive Order 23 on April 23, 2010, the Advisory Commission's charge is to provide recommendations to the Governor including (but not limited to): expanding and expediting Passaic River floodway property buyouts, prioritizing land acquisition and acquiring natural flood storage areas, operating the Pompton Lake Dam floodgates, clearing river of debris, evaluation of regulatory programs, enhancing public involvement, information and outreach for flood response, and identifying methods to phase out or prevent future



Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Agency	Hazard	Program	Capability		Effect on Loss Reduction		Provides Funding for Mitigation	Description of Policies, Programs, Funding
			Pre-Disaster	Post-Disaster	Support	Facilitate		
								development in flood-prone hazard areas.
New Jersey Department of Environmental Protection	Coastal Erosion, Hurricane/Tropical Storm, Severe Storm, Nor'easter	Bureau of Coastal Engineering	√	√	√	√		<p>The Bureau maintains a close relationship with the U.S. Army Corps of Engineers regarding all phases of coast protection. The State has continued funding the non-lapsing Shore Protection Fund for shore protection projects associated with the protection, stabilization, restoration or maintenance of the shore including monitoring studies and land acquisition.</p> <p>Through continued State funding for federal flood control projects through annual State appropriations under the HR-6 Flood Control project budget the Bureau maintains an active series of coastal flood and shore protection projects.</p> <p>The Bureau proactive responsibilities include beach nourishment, construction of shore protection structures, coastal dredging and aids to navigation. The Bureau has reactive responsibilities resulting from coastal storms. Many of the coastal engineering projects involve coordination with the U.S. Army Corps of Engineers in both the Philadelphia and the New York Districts.</p>
New Jersey Department of Environmental Protection	Geologic Hazards, Earthquake, Drought	New Jersey Geological and Water Survey	√	√	√	√		<p>Evaluates geologic, hydrogeological, and water quality data to manage and protect water resources, identify natural hazards and contaminants, and provide mineral resources including offshore sands for beach nourishment. Information provided by the survey includes GIS data and maps of geology, topography, groundwater, and aquifer recharge. In addition the data track wellhead protection areas, aquifer thicknesses, properties and depths, groundwater quality, drought, geologic resources, and hazards (such as earthquakes, abandoned mines, karst-influenced sinkholes, and landslides).</p>
New Jersey Department of Environmental Protection	Flood, Severe Storm, Nor'easter, Hurricane/Tropical Storm	Division of Land Use Regulation (DLUR)	√		√			<p>DLUR has developed rules and regulations to ensure a safer community by reducing flood losses and insurance claims in vulnerable coastal areas.</p> <p>The Division coordinates with the Bureau of Dam Safety</p>



Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Agency	Hazard	Program	Capability		Effect on Loss Reduction		Provides Funding for Mitigation	Description of Policies, Programs, Funding
			Pre-Disaster	Post-Disaster	Support	Facilitate		
								and Flood Control and NFIP-participating communities on adopting and maintaining their Flood Damage Prevention Ordinance. The Division enforces compliance with State land use regulations through notices, administrative actions, and penalties.
New Jersey Department of Environmental Protection	Fishing Failure	Division of Fish and Wildlife Service	√	√	√	√		NJDEP coordinates with the U.S. Department of Commerce, NOAA/National Marine Fisheries Service (NMFS) and the U.S. Department of the Interior, Fish and Wildlife Service in fishery mitigation programs. The Governor may apply to the NMFS for financial assistance to address fishery failures.
New Jersey Department of Environmental Protection	Wildfire	Division of Parks and Forests / Forest Fire Service	√	√	√	√		The Fire Service Section provides a full-time and a part-time staff of wildland firefighters, Staff provides continuing mechanical thinning and prescribed fire used to reduce hazardous wildland fuel accumulations Statewide, particularly in high-risk areas. The Forest Fire Service encourages community acceptance and inclusion of Firewise concepts in municipal and regional planning; develops and implements effective silviculture strategies that improve the health of forests and reduce the amount of fuels available for wildland fires from dead and dying trees. The Fires Service also strives to educate the public through NJOEM and the New Jersey Forest Fire Service outreach programs and hazard mitigation workshops.
New Jersey Department of Transportation (NJDOT)	All	511 Traffic Monitoring	√	√	√	√		The traffic monitoring system, 511NJ, is a free service for the public that supplies traffic information about the New Jersey Interstates, State Highways, New Jersey Turnpike, Garden State Parkway, Atlantic City Expressway, and all bridge and tunnel crossings to motorists. The system combines traffic data into up to date condition reports that are always available and accessible via text, voice, or internet service to commuters.
New Jersey Department of	All	Geographic Information	√	√	√			The department uses GIS to create maps that are used in several areas including planning and highway



Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Agency	Hazard	Program	Capability		Effect on Loss Reduction		Provides Funding for Mitigation	Description of Policies, Programs, Funding
			Pre-Disaster	Post-Disaster	Support	Facilitate		
Transportation		System (GIS)						construction. The maps that are created using this information aid other agencies, including law enforcement, in finding solutions to reduce traffic incidents. The GIS data can also be used to identify geographical changes after a natural disaster, so that any anomalies or problems can be addressed.
New Jersey Department of Transportation	All	Capital Program	√	√	√	√	√	NJDOT uses GIS to create maps that are used in several areas including planning and highway construction. The maps that are created using this information aid other agencies, including law enforcement, in finding solutions to reduce traffic incidents. The GIS data can also be used to identify geographical changes after a natural disaster, so that any anomalies or problems can be addressed.
New Jersey Department of Transportation	All	Reverse Lane Strategies (or contraflow operations)	√	√	√	√		NJDOT has three contraflow plans in place. The New Jersey Turnpike Authority and the South Jersey Transportation Authority also have one plan each (Garden State Parkway and Atlantic City Expressway). When activated, for a temporary period of time, NJDOT and its partners expand the lanes available for all travel in an outbound direction (away from the anticipated area of danger) and facilitate its usage for outbound vehicular travel.
New Jersey Department of Transportation	All	County Diversionary Route Plans	√	√	√	√		Diversion plans are a compilation of predetermined diversion routes developed to improve coordination between State and local agencies when incidents occur. These Diversion Plans offer the Incident Commanders viable alternate routes to utilize during incidents.
New Jersey Department of Transportation	All	Local Aid and Economic Development	√	√	√	√	√	NJDOT is committed to advancing transportation projects that enhance safety, renew aging infrastructure, and support new transportation opportunities at the county and municipal level. The Transportation Trust Fund and the Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFE-TEA) legislation provide the opportunity for funding assistance to local governments for road, bridge, and other transportation projects.



Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Agency	Hazard	Program	Capability		Effect on Loss Reduction		Provides Funding for Mitigation	Description of Policies, Programs, Funding
			Pre-Disaster	Post-Disaster	Support	Facilitate		
								NJDOT has established a number of local aid programs that provide financial support to counties and municipalities for capital improvements to transportation infrastructure.
New Jersey Department of Transportation	All	Office of Maritime Resources - Dredged Material Management	√	√	√	√		NJDOT provides interagency support, program planning, and policy recommendations on maritime issues to the Governor. NJDOT serves as the primary advisory body for the support of New Jersey’s \$50 billion maritime industry, which includes ports and terminals, cargo movement, boat manufacturing and sales, ferry operations, marine trades, recreational and commercial boating and maritime environmental resources. Management of dredging activities in New Jersey is generally divided into three main geographic areas – New Jersey/New York Harbor, Delaware River/Delaware River Ports and the State’s Navigation Channels. This program also promotes coordination and cooperation among federal, state, regional, and non-governmental agencies.
New Jersey Department of Transportation	Hazardous Substance Release	Division of Multimodal Grants and Programs	√	√	√	√		NJDOT, through the Division of Multimodal Services, is responsible for the oversight and / or support of several modes of transportation including general aviation, maritime, light rail, and freight rail; making it a multi-modal focused organization.
New Jersey Department of Transportation	All	Planning and Metropolitan Planning Organizations	√	√	√	√	√	The long-range planning process identifies goals, policies, strategies, and actions to improve the movement of people and freight and support economic growth during these difficult times. There are three MPOs in New Jersey composed of locally elected officials and representatives from each geographic urban area. Each of them is a forum for continuing, coordinated transportation planning with its portion of federal funds in the TIP. NJDOT is a voting member of each of the three regional MPOs – the North Jersey Transportation Planning Authority, the South Jersey Transportation Planning Organization, and



Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Agency	Hazard	Program	Capability		Effect on Loss Reduction		Provides Funding for Mitigation	Description of Policies, Programs, Funding
			Pre-Disaster	Post-Disaster	Support	Facilitate		
								the Delaware Valley Regional Planning Commission.
New Jersey Department of Transportation	All	ROW and Property Acquisitions	√	√				The Division of Right of Way and Access Management is not specifically tasked with hazard mitigation activities. However, the eminent domain/property acquisition process and the sale of surplus government property should be of interest to post-disaster impacted communities seeking redistribution of land assets for transportation infrastructure protection.
New Jersey Department of Transportation	Severe Winter Weather, Nor'easter	Winter Readiness	√	√	√	√		NJDOT works to make winter travel as safe as possible. NJDOT has 13,295 lane miles of interstate, U.S., and State routes under its jurisdiction that it strives to keep open and passable at all time during winter weather. The goal during a winter storm is to maintain the roads for safe travel, at safe speeds, by using anti-icing materials, and, when appropriate, removal of snow with plows.
New Jersey Department of the Treasury	All	Division of Administration and the Emergency Response Unit (ERU)	√	√	√	√	√	The ERU is the State Treasurer's representative and coordinating agency for all of the Department of Treasury's roles and responsibilities in and to Emergency Management. The ERU acts as the lead for the Department of the Treasury and deployment coordinator for the Department in Planning, Mitigation, Response, and Recovery. The Division Coordinates and delegates mitigation and corrective action policies, programs and projects within the Division of Administration and to other Divisions of the Department.
New Jersey Department of State, Office for Planning Advocacy	Natural hazards		√	√	√	√		Supports and coordinates planning throughout New Jersey to protect the environment; mitigate development hazards; and guide future growth into compact, mixed-use development and redevelopment projects while fostering a robust long-term economy. The Office implements the goals of the State Development and Redevelopment Plan to achieve comprehensive, long-term planning; and integrates that planning with programmatic and regulatory land-use decisions at all levels of government and the private sector.



Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Agency	Hazard	Program	Capability		Effect on Loss Reduction		Provides Funding for Mitigation	Description of Policies, Programs, Funding
			Pre-Disaster	Post-Disaster	Support	Facilitate		
New Jersey Economic Development Authority	All		√	√	√		√	The NJEDA supports business growth in New Jersey and has been active in post-Superstorm Sandy recovery and rebuilding efforts. The NJEDA provides businesses with low-interest financing.
New Jersey Department of Law & Public Safety, Office of Emergency Management	All	ESF 14, Long-term Recovery Planning	√	√	√	√		Through ESF 14, Long-Term Recovery Planning, NJOEM will work with the Office of Homeland Security and Preparedness to have a plan for long-term planning and recovery prior to a disaster or emergency. One of the areas of planning includes mitigation. This coordination will allow for another Statewide plan to incorporate mitigation principles and planning.
New Jersey Department of Law & Public Safety, Office of Emergency Management	All	Mitigation Unit	√	√	√	√		The Mitigation Unit, within the Emergency Management Section, has the mission of enhancing State, county, and municipal risk reduction through the development and implementation of mitigation strategies. Hazard mitigation, by definition, is any sustained action that prevents or reduces the loss of property or human life from recurring hazards. The Mitigation Unit accomplishes this task by implementing and administering several grant-based programs in conjunction with FEMA.
New Jersey Department of Law & Public Safety, Office of Emergency Management	All	Preparedness Unit	√		√	√		The Preparedness Unit is responsible for disseminating preparedness information in advance of a disaster or potential disaster.
New Jersey Department of Law & Public Safety, Office of Emergency Management	All	Public Assistance	√	√	√	√		The Public Assistance Unit accepts and reviews applications for funds for emergency work submitted by local individuals, households and businesses as well as from local governments during and immediately after a disaster.
New Jersey Office of	All		√	√	√	√		In March 2006, Executive Order No. 5 created OHSP as a cabinet-level agency within state government. The



Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Agency	Hazard	Program	Capability		Effect on Loss Reduction		Provides Funding for Mitigation	Description of Policies, Programs, Funding
			Pre-Disaster	Post-Disaster	Support	Facilitate		
Homeland Security and Preparedness (OHSP)								executive order defined the office’s mission as the agency responsible “to administer, coordinate, lead, and supervise New Jersey’s counterterrorism and preparedness efforts.” Further, the executive order charged OHSP with coordinating “the emergency response efforts across all levels of government, law enforcement, emergency management, nonprofit organizations, other jurisdictions, and the private sector, to protect the people of New Jersey. OHSP is the lead agency in preparing the State’s Threat and Hazard Identification and Risk Assessment (THIRA).
New Jersey Department of Agriculture (NJDA)	Animal Disease and Crop Failure		√	√	√	√		NJDA coordinates with the USDA, the National Association of State Departments of Agriculture, the Northeastern Association of State Departments of Agriculture, and the Communications Officers of State Department of Agriculture to participate in national and regional planning and crisis communications initiatives regarding agriculture and agricultural livestock. Agricultural groups such as the New Jersey Agricultural Society and New Jersey Farm Bureau, as well as individual agricultural commodity groups, participate in routine communications with NJDA on issues of response to manmade agricultural emergencies. NJDA coordinates with both governmental agencies and industry groups and maintains emergency response procedures for agricultural emergencies, including serving as a central communications points for those agencies and groups.
Rutgers	Flood, Severe Storm, Nor’easter, Hurricane / Tropical Storm, Coastal Erosion	Jacques Cousteau National Estuarine Research Reserve’s	√	√	√	√		The Coastal Training Program provides up-to-date scientific information, access to technologies and skill-building opportunities to professionals responsible for making decisions about coastal resources.



Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Agency	Hazard	Program	Capability		Effect on Loss Reduction		Provides Funding for Mitigation	Description of Policies, Programs, Funding
			Pre-Disaster	Post-Disaster	Support	Facilitate		
		Coastal Training Program						
Rutgers	Natural hazards	Office of the New Jersey State Climatologist (ONJSC)	√	√	√	√		The Office of the New Jersey State Climatologist (ONJSC) is situated within the New Jersey Agricultural Experiment Station at Rutgers, The State University of New Jersey. The ONJSC mission is three-fold: (1) gather and archive New Jersey weather and climate observations, (2) conduct and foster research associated with New Jersey’s weather and climate, and (3) provide critical climate services to all seeking assistance.
Rutgers	Flood/Severe Storm, Nor’easter, Hurricane / Tropical Storm	Edward J. Bloustein School of Planning and Public Policy	√	√	√	√		The Bloustein School conducts mitigation planning, data gathering, and technical studies in support of Statewide hazard mitigation. The school develops geospatial and analytical tools to support community engagement, policy reform, and State and regional planning efforts.
Stevens Institute of Technology	Flood, Severe Storm, Nor’easter, Hurricane / Tropical Storm	Coastal Engineering Research Laboratory	√	√	√	√		The university conducts fundamental and applied research on the design, implementation, and monitoring of shore protection structures, systems, and beach fill projects.
U.S. Geological Survey (USGS)	Flood, Severe Storm, Nor’easter, Hurricane/Tropical Storm		√		√	√		USGS maintains a network of gauges across New Jersey that continuously measure tidal levels. USGS provides data to the Department of Environmental Protection for drought determinations
U.S. Army Corps of Engineers (USACE)	Coastal Erosion, Flood, Severe Storm, Nor’easter, Hurricane/Tropical Storm		√	√	√	√		Silver Jackets, developed by USACE is the State-level implementation program for the National Flood Risk Management Program. The program’s goals are to leverage information and resources from federal, state, and local agencies; improve public risk communication through a united effort; and create a mechanism to collaboratively solve issues and implement initiatives beneficial to local communities.
New Jersey County Offices of Emergency	All		√	√	√	√		County OEM assists the State with distributing dedicated local infrastructure funding for selected local infrastructure projects.



Table 6-3. Summary of Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Agency	Hazard	Program	Capability		Effect on Loss Reduction		Provides Funding for Mitigation	Description of Policies, Programs, Funding
			Pre-Disaster	Post-Disaster	Support	Facilitate		
Management								
Interagency: OAG, NJOEM; OHSP, NJDEP and BPU		Energy Resiliency Program		√	√	√		A portion of Superstorm Sandy HMGP funds will be used to support statewide energy resilience. The energy allocations result from an ongoing collaboration between New Jersey, the U.S. Department of Energy's National Renewable Energy Laboratory (NREL), and the Federal Emergency Management Agency (FEMA).

Notes:

As defined in FEMA 386-3:

Support: Programs, plans, policies, regulations, funding, or practices that help the implementation of mitigation actions.

Facilitate: Programs, plans, policies, etc., that make implementing mitigation actions easier.

BPU Board of Public Utilities

CDBG Community Development Block Grant Program

CRS Community Rating System

DCA Department of Community Affairs

DWSRF Drinking Water State Revolving Fund

FEMA Federal Emergency Management Agency

GIS Geographic Information System

HMGP Hazard Mitigation Grant Program

MPO Metropolitan Planning Organization

BPU New Jersey Board of Utilities

NJDEP New Jersey Department of Environmental Protection

NFIP National Flood Insurance Program

NJOEM New Jersey Office of Emergency Management

NPDES National Pollutant Elimination Systems

OAG Office of the Attorney General

OHSP Office of Homelands Security and Preparedness

ONJSC Office of the New Jersey State Climatologist

RMP Regional Master Plan

ROW Right of Way

SHMT State Hazard Mitigation Team

STIP Statewide Transportation Improvement Program

TIP Transportation Improvement Program

USACE United States Army Corps of Engineers

USGS United States Geological Survey



Office of Emergency Management

The Governor of New Jersey has the overall responsibility for Emergency Management activities in the State. The Superintendent of the New Jersey State Police is the State Director of the New Jersey Office of Emergency Management (NJOEM). On behalf of the Governor, all activities and departments are coordinated, directed, and controlled from the NJOEM, Emergency Operations Center.

The State Director of Emergency Management supervises, directs, and appoints deputies and/or assistants to control the daily activities of NJOEM. The function and staffing of NJOEM is with the approval of the Attorney General.

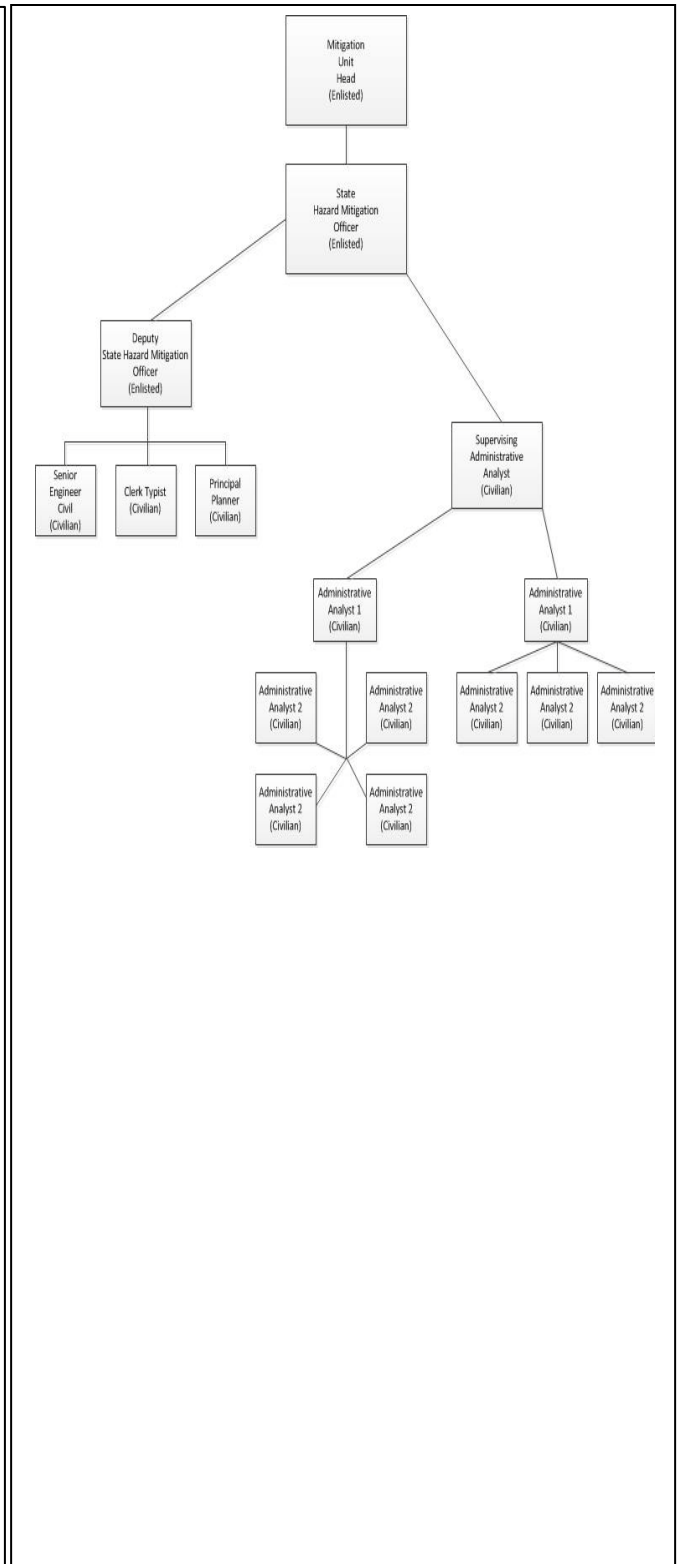
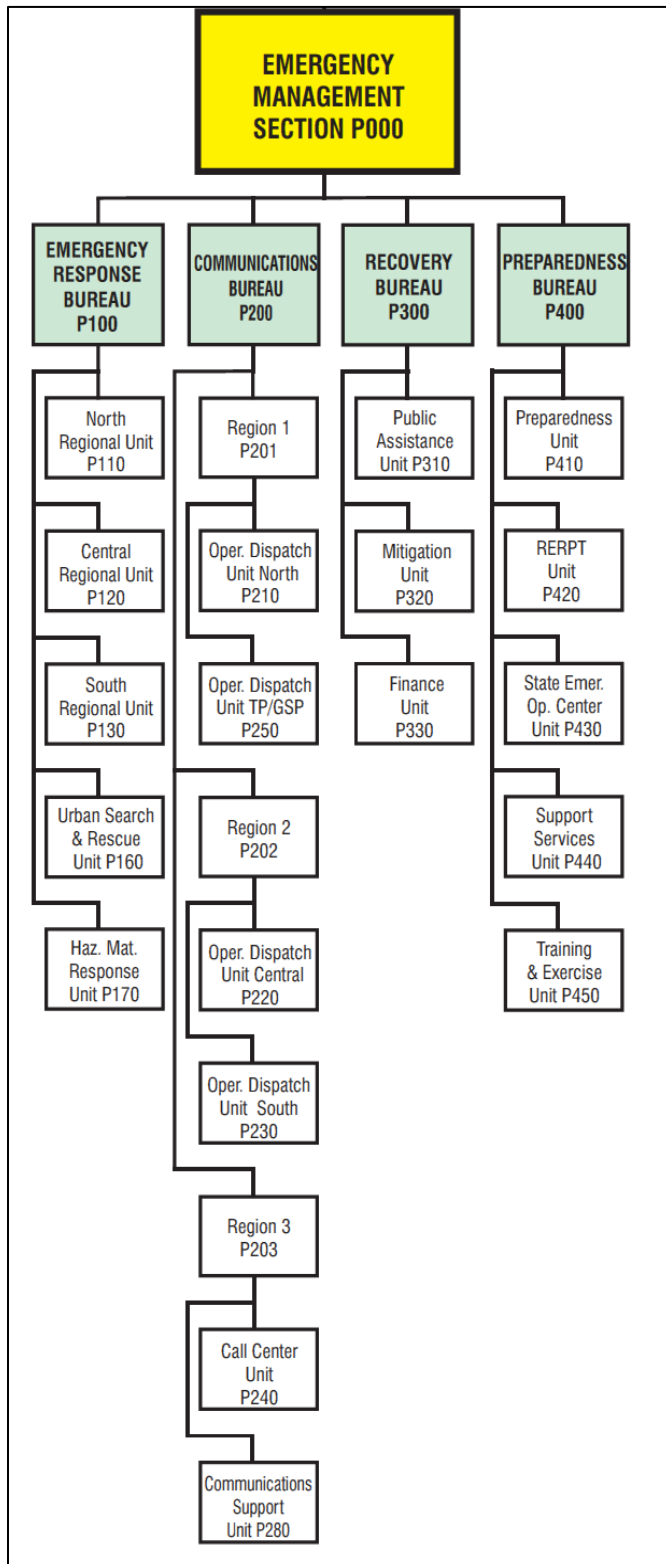
The NJOEM office has evolved from a small agency with limited planning, training, and response capabilities to its present status as an integral part of State government. The State Hazard Mitigation Officer is the representative of State government acting as the primary point of contact with FEMA, other federal agencies, and county and local units of government in the planning and implementation of pre- and post-disaster mitigation programs and activities required under the Stafford Act. The New Jersey State Hazard Mitigation Officer is Acting Sergeant First Class Michael Gallagher of NJOEM. Contact information is listed below:

Acting Sergeant First Class Michael K. Gallagher
New Jersey Office of Emergency Management
P.O. Box 7068, River Road
West Trenton, NJ 08628-0068
Phone: (732) 345-2345
Fax: (609) 530-3649
E-mail: LPP5698@gw.njsp.org
Web Page: state.nj.us/njoem

NJOEM has prioritized support for the Mitigation Unit. A Mitigation Unit manager, Civil Engineer and Regional Manager were hired to manage the increased workload and responsibilities of the NJOEM Mitigation Unit. Additional planning assets are also scheduled to be hired in the very near future. The projected additions to the Mitigation Unit will bring a total workforce to 15 staff members. The Mitigation Unit also has seven to nine Contract staff members on staff to assist with DR4086 including specialists in EHP, BCA, and Planning.



Figures 6-1 & 6-2. New Jersey Office of Emergency Management Organization Chart & Mitigation Unit



Source: NJOEM 2013



Recovery Bureau

The Chief of the Recovery Bureau supervises the Mitigation, Public Assistance, and Finance Units. The Mitigation Unit undertakes hazard mitigation planning and the review of mitigation projects in advance of potential disasters, and is also activated during and immediately after disasters to evaluate existing and proposed mitigation measures in the affected areas.

The Public Assistance Unit accepts and reviews applications for funds for emergency work submitted by local individuals, households, and businesses, as well as from local governments during and immediately after a disaster.

The 2013 reorganization of the Bureau added a dedicated Finance Unit to support the fiscal functions of both the Public Assistance and Mitigation Units. The Finance Unit ensures timely reimbursements and fiduciary responsibility.

Each regional coordinator is the primary liaison for NJOEM with the County Emergency Management Coordinators for seven contiguous counties in their assigned region (North, Central, and South). Responsibilities of the Regional Coordinators fall into 17 functional categories. They are required to attend county, municipal, and other agency meetings; attend and conduct New Jersey State Police (NJSP) and NJOEM training; conduct, oversee, and participate in local exercises; respond to all major incidents and disasters; provide direct Emergency Operation Plan (EOP) development assistance; and conduct compliance surveys, State Police details, program support, and other administrative functions.

Regional personnel represent the State Director of Emergency Management at all emergency and disaster situations in the State. They monitor emergency situations and ensure proper response and recovery activities. Response to an incident provides an opportunity for interaction between local and State government agencies. Response activities include State, county, and municipal Emergency Operation Center (EOC) activations, participation in actual operations, and technical assistance during the response and recovery phase. They are also responsible for providing status reports of events (through the proper channels) to the Office of the Governor and Attorney General. In the post-emergency phase, they are responsible for the incident's evaluation and critique. It is also the responsibility of the Regional Units to assist with the development, review, and compliance of all county and municipal EOPs. Regional personnel meet with and evaluate all Emergency Management Assistance (EMA)-funded jurisdictions for year-end reports, develop and review EOPs, conduct exercises, and review semi-annual and final EMA claim forms. New Jersey has currently achieved a compliance rate of 95%-approved EOPs.

Mitigation Unit

The Mitigation Unit, within the Emergency Management Section, has the mission of enhancing State, county, and municipal risk reduction through the development and implementation of mitigation strategies. Hazard mitigation, by definition, is any sustained action that prevents or reduces the loss of property or human life from recurring hazards. The Mitigation Unit accomplishes this task by implementing and administering several grant-based programs in conjunction with FEMA.

NJOEM staffing has increased, however, so has the workload. Through disaster funding, contracted staff have been added to support NJOEM Superstorm Sandy related mitigation efforts. To further ensure support, NJOEM has enlisted the services of consultants that specialize in those areas necessary for a successful mitigation program. NJOEM currently has consultants that specialize in mitigation planning and all aspects of the programmatic portion of federal mitigation programs.



To meet the challenges of servicing the last disasters, five additional full-time civilian hires have been added to the Mitigation Unit. The additional contracted support and full-time hires will increase the performance and capabilities of the Mitigation Unit to better serve the State of New Jersey. With a growing staff, the Mitigation Unit continues to provide support in planning and project management.

The nation's most densely populated state is also home to a wide array of natural resources. New Jersey must carefully balance development and preservation of the use of its land, coast, and water. The State recognizes the direct benefit of carefully planning land use in coordination with growth management and has passed laws regulating land use, preservation of land and water, floodplains, growth, and emergency management to protect the land. In addition, the State also recognizes that proper planning can reduce the potential for hazards to impact the State. Refer to Section 4 (State Profile) for more detailed information on growth and development across New Jersey.

NJOEM, in cooperation with other State agencies and FEMA, seeks to mitigate hazards and reduce repetitive losses caused by flooding through the implementation of programs such as the Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA), and Pre-Disaster Mitigation (PDM) Programs. Each program functions in a different manner, but they all achieve the same objective to provide funding for hazard mitigation projects or reduce repetitive losses of flood prone structures. This will not only save Federal funds, but lives and reduce the risk of personal injury to response personnel in a disaster situation.

Since the enactment of the Disaster Mitigation Act of 2000, every county in New Jersey has a FEMA-approved Hazard Mitigation Plan or has received funding for an original plan or a plan update (Figure 3-1 in Section 3, Coordination of Local Planning). The hazard identification, risk analyses, and vulnerability assessments provide estimates of potential property losses throughout the State. Building on these assessments, each county and participating jurisdiction identifies a prioritized list of hazard mitigation measures, with an accompanying action plan for their implementation. The individual County Hazard Mitigation Plans have thus become the foundation of New Jersey's pre- and post-disaster mitigation planning activities.

By regulation, the County Mitigation Plans are to be reviewed on a regular basis and must be updated, approved, and adopted every 5 years. For this reason the State's efforts are now directed toward maintaining a high standard and improving the effectiveness of multi-jurisdictional hazard mitigation plans. These plans are at different stages in the update and renewal process, depending on the date of approval of the initial plan.

The NJOEM Hazard Mitigation Unit has two mitigation planners who review the plans thoroughly, working closely with the counties to ensure that the plans meet all regulations and recommended best practices. The Unit also has a close relationship with FEMA Region II for direct support with recommendations prior to official submittal.

In order to provide technical assistance to counties, the State holds county/regional workshops in conjunction with FEMA Region II regarding the most recent planning guidance. The State also works with counties early in the plan development process, participates in development meetings and workshops, and provides feedback on early drafts.

The responsibilities of the mitigation planning staff are to (1) support the maintenance and improvement of counties' and local governments' mitigation strategies, (2) understand conditions relevant to mitigation and redevelopment planning for these communities, (3) represent the interests of the communities to NJOEM in program development and implementation, and (4) provide technical assistance to all counties on updating and implementing their hazard mitigation plans.



Preparedness Bureau

The Preparedness Unit in the Preparedness Bureau is responsible for disseminating preparedness information in advance of a disaster or potential disaster. The Preparedness Unit maintains an extensive library of natural disaster preparedness and recovery information on its Family and Community Emergency Preparedness website, accessible at www.nj.gov/njoem or www.njsp.org/njoem. The disaster preparedness and recovery information featured prominently on the New Jersey State Police and NJOEM website home pages is a critical part of New Jersey's efforts to protect public health and safety and to minimize loss of life and property in the event of a disaster.

The Support Services Unit in the Preparedness Bureau has staff that supports the State pre- and post-disaster. Pre-Disaster NJOEM's GIS staff has worked closely with the New Jersey Geospatial Forum (NJGF) Elevation Task Force in order to fund and acquire LiDAR elevation data which we in turn pass along to FEMA for their use in the Flood Map Modernization Program. The Unit also works with the US Army Corps of Engineers, the National Weather Service, and the United States Geologic Survey to improve public access to flood data in and around river flood gauges.

Post-Disaster NJOEM's GIS staff coordinates with FEMA and the State Office of GIS in order to best share the disaster specific GIS data sets created by Federal and State agencies.

Training Unit

New Jersey continues to have one of the strongest Citizens Emergency Response Team (CERT) programs in the nation. The NJOEM Support Services Unit and the Training Unit play an integral part in maintaining the - CERT Program.

The NJOEM Training Unit provides training to personnel from government agencies and private industry on a variety of FEMA courses in an effort to better prepare them to deal with natural, manmade, and technological emergencies. This training covers the four concepts of Emergency management: Preparedness, Mitigation, Response, and Recovery.

Emergency Operations Center

Whenever a disaster occurs, or is predicted to occur, the State Emergency Operations Center is activated and staffed with personnel from the NJOEM Mitigation Unit as well as other State Police emergency management units and various State agencies. A 24-hour/seven-days-per-week schedule for staffing is developed in advance each month, so that the EOC may be activated at a moment's notice. The State EOP addresses the State's response to any disaster or emergency. It provides the basis for coordinated emergency operations involving disaster planning, response, recovery, and mitigation. The EOP defines the relationships between NJOEM and other entities, both government and volunteer, that are serving citizens prior to, during, and after emergencies events. The Plan involves 27 federal agencies, 16 State departments, and 24 State and volunteer agencies. The NJOEM responds to the resource requests of the counties when they are overwhelmed and in need of assistance whether it is a Statewide disaster, or one on a more local (county) level.

During a post disaster period, the Mitigation Unit personnel work closely with all of the communities involved to assist with the Hazard Mitigation Grant Program in the same manner as with the pre-disaster programs.



Joint Field Office

FEMA established a Joint Field Office in support of every federally declared disaster in the State to include:

- DR-1954: Severe Winter Storm and Snowstorm, February 2011
- DR-4021: Hurricane Irene, August 2011
- DR-4033: Severe Storms and Flooding, September 2011
- DR-4039: Tropical Storm Lee, October 2011
- DR-4048: Severe Storm, November 2011
- DR-4070: Severe Storms and Straight-Line Winds, July 2012
- DR-4086: Hurricane Sandy, October 2012

Once a disaster is declared by the President, federal disaster recovery resources undertake efforts to build and staff a Joint Field Office (JFO) where FEMA and the State can coordinate disaster recovery – within three days. From the JFO, FEMA and the State coordinate the disaster response and recovery efforts for areas affected by disasters.

Staffing at the JFO's include FEMA, NJOEM, and various State Agencies. Other possible agencies staffing and providing services at the JFO include the Small Business Administration, US Environmental Protection Agency and others.

The JFO facilitates interagency cooperation between State and federal agencies. The JFO supports NJOEM many ways to include: personnel to assist with Preliminary Damage Assessments, Public Assistance and Hazard Mitigation activities.

Hazard Mitigation Administrative Plan

In the event that an active disaster declaration has necessitated a FEMA-approved HMGP Administrative Plan, the plan is reviewed to ensure compliance with the prevailing guidance and to set forth the administrative procedures, organization, and requirements for administering the HMGP in New Jersey. The HMGP Administrative Plan details the process for prioritizing post-disaster mitigation funding of local mitigation projects.

6.2.2 Laws, Regulations, Policies, and Programs

In addition to evaluating the programs and policy capabilities of the State, NJOEM identifies federal and State laws and regulations that impact hazard mitigation. Tables 6-4 and 6-5 list the federal and State mitigation laws that impact the development in hazard-prone areas in New Jersey, respectively and are deemed effective. These statutes and corresponding regulations are tools that support hazard mitigation, and some of the regulations have been updated to help with compliance, enforcement, and improved protections.



Table 6-4. Federal Mitigation Laws and Regulations that Impact Development in Hazard Prone Areas

Statute and Corresponding Regulations	Description	Agency Oversight And Effectiveness
Disaster Mitigation Act of 2000 (DMA 2000) P.L. 106-390	DMA 2000 provides an opportunity for states, tribes, and local governments to take a new and revitalized approach to mitigation planning. DMA 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Act) by repealing the previous mitigation planning provisions (Section 409) and replacing them with a new set of mitigation plan requirements (Section 322). This new section emphasizes the need for state, tribal, and local entities to closely coordinate mitigation planning and implementation efforts. Up to 7% of HMGP funds available to be used for development of state, tribal, and local mitigation plans.	The NJOEM Mitigation Unit is the lead agency within New Jersey to promote mitigation planning. The law sets forth a more granular review of mitigation planning. Once approved, the applicant is eligible for applying for federal funds for mitigation of hazards. The rules provide detailed guidance on what applicants should include in a plan.
44 CFR PART 201.4	FEMA has prepared policy and procedures for FEMA’s review and approval of state and local emergency all-hazard mitigation plans.	The State Hazards Mitigation Plan provides actions based on risk assessments and capabilities of the state to achieve and fund mitigation activities based on those actions. Both the law and regulations have encouraged the counties to prepare plans.
Robert T. Stafford Disaster Relief and Emergency Assistance Act	The Act provides an orderly and continuing means of assistance by the federal government to state and local governments in carrying out their responsibilities to alleviate the suffering and damage that results from disasters. The provisions of the Act include (1) revising and broadening the scope of existing disaster relief programs; (2) encouraging the development of comprehensive disaster preparedness and assistance plans, programs, capabilities, and organizations by state and local governments; (3) achieving greater coordination and responsiveness of disaster preparedness and relief programs; (4) encouraging individuals, and state and local governments to protect themselves by obtaining insurance coverage to supplement or replace governmental assistance; (5) encouraging hazard mitigation measures to reduce losses from disasters, including development of land-use and construction regulations; and (6) providing federal assistance	From a mitigation perspective of the Act, the NJOEM Mitigation Unit is the lead agency that reviews, submits, and administers federal funding to programs that mitigate hazards. These programs help find projects that are cost beneficial to help reduce damages from hazards.



Table 6-4. Federal Mitigation Laws and Regulations that Impact Development in Hazard Prone Areas

Statute and Corresponding Regulations	Description	Agency Oversight And Effectiveness
	programs for both public and private losses sustained in disasters.	
Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004	The Flood Insurance Reform Act of 2004 amended the 1994 National Flood Insurance Reform Act of 1968 to reduce losses to properties for which repetitive flood insurance claim payments have been made. This Act established a program for mitigation of severe repetitive loss properties, and gave FEMA the authority to fund mitigation activities for individual repetitive loss claims properties. The Act provides additional coverage for compliance with land-use and control measures.	The NJDEP Flood Control Division is the lead coordinator of New Jersey’s NFIP efforts. NJOEM Mitigation Unit is the agency working with New Jersey communities with severe repetitive loss properties. This Statute helps New Jersey residents with affordable flood insurance and gives additional tools to the states and communities to mitigate severe repetitive loss properties.
Biggert Waters National Flood Insurance Reform Act of 2012 (New)	Under the Biggert-Waters National Flood Insurance Reform Act of 2012, long-term changes to the National Flood Insurance Program have been adopted that are likely to increase rates overall to more accurately reflect the flood risk to buildings in flood hazard areas. This will significantly influence construction and reconstruction within flood hazard areas.	Property owners are encouraged to consider long-term insurance costs when undertaking reconstruction or elevation of damaged buildings. An investment to reconstruct the lowest floor of a building an additional foot or two higher today may translate into significant future flood insurance savings.
Presidential Policy Directive 8 (PPD-8) (New)	PPD-8 requires that a Threat Hazard Identification and Risk Assessment (THIRA) be developed for a state to remain eligible for Homeland Security Grant Program (HSGP) and Emergency Management Program Grant (EMPG) funding.	The New Jersey Office of Homeland Security and Preparedness is the lead agency in preparing the State’s THIRA. The fiscal year 2013 NJ State THIRA and Strategic Planning Report was submitted to FEMA Region II in December 2013.

Notes:

- | | | | |
|-----------------|--|--------------|--|
| <i>DMA 2000</i> | <i>Disaster Mitigation Act of 2000</i> | <i>NJDEP</i> | <i>New Jersey Department of Environmental Protection</i> |
| <i>EMPG</i> | <i>Emergency Management Program Grant</i> | <i>NJOEM</i> | <i>New Jersey Office of Emergency Management</i> |
| <i>HSGP</i> | <i>Homeland Security Grant Program</i> | <i>NFIP</i> | <i>National Flood Insurance Program</i> |
| <i>FEMA</i> | <i>Federal Emergency Management Agency</i> | <i>PPD-8</i> | <i>Presidential Policy Directive 8</i> |
| <i>HMPG</i> | <i>Hazard Mitigation Grant Program</i> | <i>THIRA</i> | <i>Threat Hazard Identification Risk Assessment</i> |



Table 6-5. State Mitigation Laws and Regulations that Impact Development in Hazard-Prone Areas

Statute and Corresponding Regulations	Description	Agency Oversight And Effectiveness
<p>Freshwater Wetland Protection Act (N.J.S.A. 13:B:1)</p> <p>Freshwater Wetland Protection Rules (N.J.A.C. 7:7A)</p>	<p>New Jersey enacted this law to support development and enhancement of State and local wetland protection programs. Projects must clearly demonstrate a direct link to increasing the State’s ability to protect wetland resources. Grants are federally funded and administered by the NJDEP. The associated implementing regulations support the New Jersey freshwater wetlands program.</p>	<p>On April 16, 2013 in view of the significant adverse social, economic and environmental impacts associated with Superstorm Sandy, and in support of the rebuilding and economic recovery of New Jersey’s coastal areas in an expeditious and resilient manner, the NJDEP adopted on an emergency basis (effective April 16, 2013), amendments, repeals and new rules to the Coastal Permit Program rules, N.J.A.C. 7:7, and Coastal Zone Management rules, N.J.A.C. 7:7E in order to make these rules more effective.</p> <p>These amendments, repeals, and new rules are intended to facilitate the expeditious rebuilding of more resilient coastal communities and coastal-related industries, and help facilitate the recovery of the coastal ecosystem.</p>
<p>Flood Hazard Area Control Act (N.J.S.A. 58:16A-52)</p> <p>Flood Hazard Area Control Regulation (N.J.A.C. 7:13)</p>	<p>New Jersey enacted this law to delineate and mark flood hazard areas; authorize NJDEP to adopt land-use regulations for the flood hazard area; control stream encroachments; coordinate effectively the development, dissemination, and use of information on floods and flood damages that may be available; authorize the delegation of certain administrative and enforcement functions to county governing bodies; and integrate the flood control activities of the municipal, county, State, and federal governments.</p> <p>The intent of the regulations is to minimize potential on- and off-site damage to public or private property caused by development that, at times of flood, subject structures to flooding and increase flood heights and/or velocities both upstream and downstream. These rules are also intended to safeguard the public from the dangers and damages caused by materials being swept onto nearby or downstream lands, to protect and enhance the public’s health and welfare by minimizing the degradation of water quality from point and non-point pollution sources, and to protect wildlife and fisheries by preserving and enhancing water quality and the environment associated with the floodplain and the watercourses that create them.</p>	<p>In response to Superstorm Sandy, NJDEP adopted emergency flood hazard area regulations on January 24, 2013, to facilitate the reconstruction, relocation, and elevation of buildings damaged by Sandy and mitigate</p>



Table 6-5. State Mitigation Laws and Regulations that Impact Development in Hazard-Prone Areas

Statute and	Description	Agency Oversight And Effectiveness
<p>Waterfront Development Statute (N.J.S.A. 12:5-1)</p> <p>Coastal Permit Program (N.J.A.C. 7:7)</p>	<p>This Law sets forth the requirements of filling or dredging of, or placement or construction of structures, pilings, or other obstructions in any tidal waterway, or in certain upland areas adjacent to tidal waterways outside the area regulated under Coastal Area Facility Review Act. These requirements are fully explained in N.J.A.C.7:7-2.3.</p> <p>These implementing rules establish the procedures by which the NJDEP will review permit applications and appeals from permit decisions the Waterfront Development Law.</p>	<p>As noted above, on April 16, 2013, NJDEP adopted emergency amendments, repeals, and new rules to the Coastal Permit Program rules, N.J.A.C. 7:7; and CZM rules, N.J.A.C. 7:7E; and also filed a concurrent proposal to make these changes permanent. This action will aid reconstruction of impacted homes and businesses, assist the recovery of marinas and shellfish industries, help make coastal areas more resilient in future storms, and expedite dredging of storm-impacted private lagoons and marinas</p>
<p>Safe Dam Act of 1981</p> <p>N.J.A.C.7:24A - Dam Restoration and Inland Water Projects Loan Program Rules:</p>	<p>No municipality, corporation, or person shall (without the consent of the Commissioner of Environmental Protection) build any reservoir or construct any dam; or repair, alter, or improve existing dams on any river or stream in this State or between this State and any other state that will raise the waters of the river or stream more than 5 feet above its usual mean low water height.</p> <p>These rules are for the purpose of administering the Dam Restoration and Inland Water Projects Loan Program. The Department awards and administers loans for projects in accordance with the adopted regulations.</p>	<p>This program is a low-interest loan program to assist local government units, private lake associations, and private dam owners with the repair and restoration of dams, and the implementation of inland water projects. This program has successfully resulted in the repair of 95 high and significant-hazard dams. It is a revolving loan program so that as money is paid back into the program additional loan applications for future projects can be accepted.</p>
<p>Construction Permits (N.J.S.A. 13: 1D-29 to 34)</p>	<p>The Law mandates that NJDEP make timely decisions on construction permit applications to ensure adequate public notice of procedures and to continue effective administration of the substantive provisions of other laws.</p>	<p>This Law ensures NJDEP issues permits in a timely manner so as not to delay necessary construction projects. Historical records indicate NJDEP's conformance with this law. This does not apply to freshwater wetland rules, only coastal and flood hazard regulations. As part of the effort to recover from the impacts of Superstorm Sandy this law was amended March 25, 2013 in conjunction with the amendment of R.2013d to the Flood Hazard Area Control Act.</p>



Table 6-5. State Mitigation Laws and Regulations that Impact Development in Hazard-Prone Areas

Statute and	Description	Agency Oversight And Effectiveness
Coastal Area Facility Review Act (CAFRA) (N.J.S.A. 13:19)	<p>CAFRA applies to projects near coastal waters in the southern part of the State. The law divides the CAFRA area into sections or zones, and regulates different types of development in each zone. Generally, the closer it is to the water, the more likely a development will be regulated. The CAFRA law regulates almost all activities involved in residential, commercial, or industrial development, including construction, relocation, and enlargement of buildings or structures; and all related work, such as excavation, grading, shore protection structures, and site preparation.</p> <p>This law is implemented through New Jersey’s CZM Rules N.J.A.C. 7:7E-1.1 et seq</p>	<p>Permits issued require construction in accordance with the NFIP requirements in A and V zones. Effective July 1994 the CAFRA jurisdiction was expanded to include every single-family residential development within 150 feet of the mean high water line, beach, or dune. The threshold for regulation over commercial development was lowered to capture smaller commercial developments, and NJDEP gained authority over any disturbance to a beach or dune area or the placement of a structure in these areas. Effective November 5, 2007, the CZM rules incorporate the new and more stringent Flood Hazard Area Control Act standards, including protection of riparian buffers along tidal water courses that can be 50, 150, and 300 feet along environmentally sensitive (Category-1) waterways.</p>
Environmental Aid Act (N.J.S.A. 13:1H – 1 to 7) Office of Environmental Services Matching Grants Program for Local Environmental Agencies (N.J.A.C.7:5)	<p>State aid may be granted by the department to a local environmental agency for any activity that the agency is authorized to perform by law and for the preparation of an environmental index. An environmental index shall be a report on environmental conditions within the locality and community objectives concerning open areas, parks, water supply, solid waste, wildlife protection, soil resources, air pollution, water pollution and other related issues. The department may provide technical assistance in addition to (or in lieu of) State aid to any local environmental agency for the purpose indicated in this act.</p> <p>The purpose of the funding dedicated under this act is to assist local environmental commissions and soil conservation districts with funding for a variety of local environmental projects including community education projects; environmental resource inventories; beach monitoring and management projects; environmental trail designs; lake rehabilitation studies; stream and water quality testing; wellhead delineation; GIS mapping projects; National Environmental Performance Partnership System indicator projects; and surveys of threatened and endangered species. The maximum annual grant is \$2,500. Applicants must match at least 50% of the total cost of the project.</p>	<p>Projects funded by this grant are reported on-line. Examples of mitigation projects that have been funded in the past include Waterways Beach Monitoring and Management Strategy, Dune Project, Beach Protection and Storm Drainage Plan, Beach Storm Water Drainage Analysis, Stream Corridor/Greenway Protection Plan, Shoreline Bioengineering Demonstration and Outreach Project, Stream and the Pamphlet/Education Project.</p>



Table 6-5. State Mitigation Laws and Regulations that Impact Development in Hazard-Prone Areas

Statute and	Description	Agency Oversight And Effectiveness
N.J.S.A. 58:16a-101	NJOEM shall notify the emergency management organization in the counties, which shall then notify the local police departments in the event of a flood situation.	NJOEM shares all data with county-level OEM offices. Weather alerts and notices are produced daily, 365 days a year. The local-level OEM entities have access to the same data sources as NJOEM. Preparations for approaching events are generally concurrent. The majority of the time, State-level notifications to local-level issues are redundant but are carried out regardless.
Forest Fire Prevention and Control Act (N.J.S.A. 13:9-44 to 44.10)	The Forest Fire Service is responsible for determining wildfire hazards; removing or overseeing removal of brush, undergrowth, or other material that contributes to wildfire hazards; maintaining or overseeing maintenance of firebreaks; setting backfires; plowing lands; closing roads; and making regulations for burning brush. The Forest Fire Service has the authority to summon any male person between the ages of 18 and 50, who may be within the jurisdiction of the state, to assist in extinguishing fires. The Fire Service can require the use of property needed for extinguishing fires, issue permits, collect extinguishment costs and fines for violations, and direct all persons and apparatus engaged in extinguishing wildfires. The Service has the right of entry to inspect and ascertain compliance and extinguish wildfires, investigate fires to determine cause, close the woods to all unauthorized persons in an emergency, and arrest (without an official warrant) anyone violating the Forest Fire Laws.	The laws that apply are 13:9-2, 9-23, and 9-24. Also, Forest Fire mitigation efforts are not exempted in other environmental regulations. Certain mitigation efforts sometimes occur where there is threatened and endangered habitat, even when that habitat was caused by past prescribed burning operations.



Table 6-5. State Mitigation Laws and Regulations that Impact Development in Hazard-Prone Areas

Statute and	Description	Agency Oversight And Effectiveness
<p>New Jersey Green Acres Land Acquisition Acts of 1961 and 1971, and Green Acres Land Acquisition and Recreation Opportunities Act (N.J.S.A. 13: 8a 19-55 and 8B 1-9)</p> <p>Green Acres Program (N.J.A.C.7:36)</p>	<p>The Legislature enacted the New Jersey Acres Land Acquisition Acts in order to achieve, in partnership with others, a system of interconnected open spaces, whose protection will preserve and enhance New Jersey’s natural environment and its historic, scenic, and recreational resources for public use and enjoyment.</p> <p>On November 3, 1998, New Jersey voters approved a referendum that created a stable source of funding for open space, farmland, and historic preservation and recreation development, and on June 30, 1999, the Garden State Preservation Trust Act was signed into law. The law establishes, for the first time in history, a stable source of funding for preservation efforts.</p> <p>These rules implement the Green Acres laws, governing the award of loans or matching grants, or both, to local government units for the acquisition or development of land, and 50% matching grants to nonprofits for the acquisition or development of land, for outdoor recreation and conservation purposes. These rules establish project eligibility requirements, application requirements, funding award categories and criteria, matching grant and loan terms, and program administrative requirements. The rules also contain procedures for the disposal, or diversion to a use other than recreation and conservation, of those lands acquired or developed with Green Acres funding or otherwise encumbered with Green Acres restrictions.</p>	<p>These land preservation programs assist local government units and nonprofits in their efforts to increase and preserve permanent outdoor recreation areas for public use and enjoyment, and conservation areas for the protection of natural resources such as waterways, wildlife habitat, wetlands, forests, and view sheds. A secondary benefit of these laws and rules is that flood-prone properties are often purchased and not available for future development. This statute has achieved acquisitions of more than 1.2 million acres of open space and farmland for preservation in communities across the State.</p> <p>There has been a change between the 2011 and 2014 plan regarding the reliance on the Green Acres Program. Though applicable regulations and programs for green acres remain, a sustainable source of funding is not currently available, thus, areas where this program was previously highlighted have been removed.</p>



Table 6-5. State Mitigation Laws and Regulations that Impact Development in Hazard-Prone Areas

Statute and	Description	Agency Oversight And Effectiveness
<p>Wetlands Act of 1970 (N.J.S.A. 13:9A – 1 to 10)</p> <p>Coastal Zone Management Rules Program (N.J.A.C.7:7E)</p>	<p>In 1970, the New Jersey Legislature declared that one of the most vital and productive areas of our natural world is the area between the sea and the land known as the “estuarine zone.” This area protects the land from the force of the sea, moderates the weather, provides a home for water fowl and for fish and shellfish, and assists in absorbing sewage discharge by the rivers of the land. It is necessary to preserve the ecological balance of this area and prevent its further deterioration and destruction by regulating the dredging, filling, removing, or otherwise altering or polluting.</p> <p>Coastal Zone Management rules mandate the use and development of coastal resources, to be used primarily by the Land Use Regulation Program in the Department in reviewing permit applications under the Coastal Area Facility Review Act (CAFRA), N.J.S.A. 13:19-1 et seq. (as amended to July 19, 1993); Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq.; Waterfront Development Law, N.J.S.A. 12:5-3; Water Quality Certification (401 of the Federal Clean Water Act); and Federal Consistency Determinations (307 of the Federal Coastal Zone Management Act). The rules also provide a basis for recommendations by the Program to the Tidelands Resource Council on applications for riparian grants, leases, and licenses.</p>	<p>NOAA has oversight of the funds received for the Coastal Zone Management and NJDEP administers the regulatory program. NJDEP must report grant activities (status, implementation, and completion) to NOAA twice a year.</p>
<p>Pineland Protection Act (N.J.S.A. 13: 18A-30 to 49)</p>	<p>In 1979 the New Jersey Legislature declared the protection of the New Jersey Pinelands and established a regional planning and management commission empowered to prepare and oversee the implementation of a comprehensive management plan for the pinelands area.</p>	<p>Management programs and minimum standards have been established under the Pinelands Comprehensive Management Plan that are intended to provide protection of wetlands, vegetation, fish and wildlife, water quality management, and forest fire management.</p> <p>Flood and wildfire mitigation is a secondary benefit of the development constraints placed on environmentally sensitive areas.</p>
<p>Pinelands Comprehensive Management Plan (N.J.A.C.7:50)</p>	<p>The Comprehensive Management Plan implements the regulations and standards designed to promote orderly development of the Pinelands so as to preserve and protect the significant and unique natural, ecological, agricultural, archaeological, historical, scenic, cultural, and recreational resources of the Pinelands. The Pinelands Commission bears the ultimate responsibility for implementing and enforcing the provisions of the Pinelands Protection Act and this Plan.</p>	<p>Under the Pinelands Comprehensive Management Plan management programs and minimum standards have been established that are intended to provide for the protection of wetlands, vegetation, fish and wildlife, water quality management, and forest fire management. Flood and wildfire mitigation is a secondary benefit of the development constraints placed on environmentally sensitive areas.</p>



Table 6-5. State Mitigation Laws and Regulations that Impact Development in Hazard-Prone Areas

Statute and	Description	Agency Oversight And Effectiveness
<p>New Jersey Pollutant Discharge Elimination System (NJPDES) Stormwater Regulation Program (NJPDES) Rules (N.J.A.C.7:14A).</p>	<p>These NJPDES Stormwater Rules are intended to address and reduce pollutants associated with existing stormwater runoff. These NJPDES Rules govern the issuance of permits to entities that own or operate small, separate, municipal storm sewer systems. The permit program establishes the Statewide Basic Requirements that must be implemented to reduce nonpoint source pollutant loads from these sources. The Statewide Basic Requirements include measures such as the adoption of ordinances (litter control, pet waste, wildlife feeding, proper waste disposal, etc.); the development of a municipal stormwater management plan and implementing ordinance(s); requiring certain maintenance activities (such as street sweeping and catch basin cleaning); implementing solids and floatables control; locating discharge points and stenciling catch basins; and a public education component.</p>	<p>Guidance for the development of Municipal Mitigation Plans was developed and made available in February 2006. This has been effective in guiding the community for stormwater runoff.</p>
<p>Stormwater Management Rules (N.J.A.C.7:8)</p>	<p>These rules set forth the required components of regional and municipal stormwater management plans, and establish the stormwater management design and performance standards for new (proposed) development. The design and performance standards for new development include groundwater recharge, runoff quantity controls, runoff quality controls, and buffers around Category 1 waters.</p>	<p>The program was developed in response to the EPA Phase II rules published in December 1999. The department issued final stormwater rules on February 2, 2004 and four NJPDES general permits authorizing stormwater discharges from Tier A and Tier B municipalities, as well as public complexes, and highway agencies that discharge stormwater from municipal separate storm sewers. There are 462 Tier A municipalities and 100 Tier B municipalities.</p> <p>The general permits address stormwater quality issues related to new development, redevelopment, and existing development by requiring municipalities to implement a number of Statewide Basic Requirements. All municipalities have a local stormwater coordinator and the department has case managers assigned to each municipality for compliance assistance (see N.J.A.C. 7:22 below).</p> <p>Long term water quality trends in rivers and streams indicate dramatic improvement over the past 30 years, likely the result of elimination or minimization of point sources, upgrades of wastewater treatment plants and natural attenuation of pollutants.</p>



Table 6-5. State Mitigation Laws and Regulations that Impact Development in Hazard-Prone Areas

Statute and	Description	Agency Oversight And Effectiveness
Sewage Infrastructure Improvement Act Grants (N.J.A.C.7:22)	New Jersey Sewage Infrastructure Improvement Act establishes comprehensive requirements for NJDEP and municipalities/authorities to address combined sewer overflows and stormwater management.	<p>NJDEP issues permits and provides below-market interest rate loans through the Environmental Infrastructure Financing Program to municipalities for capital improvements that improve water quality.</p> <p>To prioritize wastewater projects under the Environmental Infrastructure Financing Program, projects are ranked to address higher State priorities or high water quality problems or improvements. Since the enactment of the loan program, more than \$1.5 billion in state and federal funds have been awarded.</p>
<p>Water Pollution Control Quality Act (N.J.S.A. 58:10A-1 to 60)</p> <p>Water Quality Management Planning Rules (N.J.A.C.7:15)</p>	<p>This Act phased out the Construction Grants Program and required states to establish a State Revolving Fund Loan Program. The last year in which construction grants were made available for new projects in New Jersey was 1989. Grant awards are available currently to cover increased allowable costs for projects that previously received a construction grant.</p> <p>The rules serve two basic functions: (1) to establish the Department’s general regulatory framework for water quality planning and (2) to supplement other Department rules pertaining to wastewater management.</p>	<p>This Act is implemented through a number of regulations and programs throughout NJDEP including, but not limited to Freshwater Wetlands Protection Act (NJAC 7:7A), Stormwater Management (NJAC 7:8), Water Pollution Control (NJAC 7:9), Surface Water Quality Standards (NJAC 7:9B), Safe Drinking Water Act (NJAC 7:10), Flood Hazard Control Act (NJAC 7:13), Pollutant Discharge Elimination System (NJAC 7:14A), and Water Quality Management (NJAC 7:15). Through these rules, NJDEP regulates development location and intensity of uses, protects floodplain capacity and riparian buffers, funds restoration of lakes and streams, and funds infrastructure improvements that primarily provide environmental health. Secondly, the rules allow NJDEP to provide mitigation in the form of reduced losses due to infrastructure failure. Wastewater Management Plans (WMP) are integral components of area-wide Water Quality Management Plans. WMPs are the vehicle through which the continuing planning process integrates local and regional planning into the area-wide Water Quality Management Plans.</p>
Tidelands Act (N.J.S.A 12:3)	Tidelands, also known as “riparian lands” are lands now or formerly flowed by the tide of a natural waterway. This includes lands that were previously flowed by the tide but have been filled and are no longer flowed by the tide. These lands are owned by the people of the State of New Jersey. You must first get permission from the State to use these lands, in the form of a tidelands license, lease or grant, and you must pay for this use.	The management of tidelands in New Jersey is overseen by the Tidelands Resource Council, a board of twelve Governor-appointed volunteers, along with DEP staff at the Bureau of Tidelands Management. Grants, licenses and leases are issued by the Tidelands Resource Council, which makes all ultimate decisions with regard to tidelands.



Table 6-5. State Mitigation Laws and Regulations that Impact Development in Hazard-Prone Areas

Statute and	Description	Agency Oversight And Effectiveness
New Jersey Civilian Defense and Disaster Control Act	The purpose of this act is to provide for the health, safety and welfare of the people of the State of New Jersey and to aid in the prevention of damage to and the destruction of property during any emergency as herein defined by prescribing a course of conduct for the civilian population of this State during such emergency and by centralizing control of all civilian activities having to do with such emergency under the Governor and for that purpose to give to the Governor control over such resources of the State Government and of each and every political subdivision thereof as may be necessary to cope with any condition that shall arise out of such emergency and to invest the Governor with all other power convenient or necessary to effectuate such purpose.	Implementation is overseen by the State Department of Defense, office of civilian defense director. The director is appointed by the Governor. The Act is implemented through coordination and established lines of communication through the State Office of Emergency Management and county emergency management coordinators.
N.J.S.A. 38A:17-1	The Governor is authorized to enter into agreements with the governors of any of the states bordering on New Jersey for the protection in the event of emergency of any or all interstate bridges, tunnels, ferries and other communications facilities.	The State Office of Emergency Management (OEM) is responsible for the implementation of the Governor’s directive to assist emergency response counterparts in bordering states. OEM manages inter-state assistance through delineated lines of communication and standard operating procedures.
N.J.S.A. 52:14E-11 (3-10-2003) The Fire Service Resource Emergency Deployment Act	This Act allows for the Fire Division within the Department of Community Affairs to deploy fire assets to a pre-designated location in advance of a disaster or emergency as well as move assets to a pre-designated location to avoid assets being damaged	New Jersey Community Affairs, Fire Service Division. This has been used successfully in every disaster since the Act was passed.
N.J.S.A. 52:27D-126.3 Emergency Building Inspection Act	Enacted on January 17, 2007, this Act addresses how building code officials would be compensated if called to support damage assessment outside of their jurisdiction.	The Commissioner of the Department of Community Affairs established a program to deploy State and local construction code officials to assist local construction code officials and inspectors. This program has provided flexibility and redundancy to the State and local governing bodies in the deployment of essential personnel to evaluate buildings and other structures affected by a natural or man-made disaster or emergency.



Table 6-5. State Mitigation Laws and Regulations that Impact Development in Hazard-Prone Areas

Statute and	Description	Agency Oversight And Effectiveness
N.J.S.A. § 52:18A-196 et seq	The State Planning Act (1985) created the New Jersey State Planning Commission (SPC) and the Office of State Planning (OSP) as staff to the SPC.	New Jersey Department of State, Office for Planning Advocacy Duties of the SPC are: <ul style="list-style-type: none"> • To prepare and adopt a State Plan to provide a coordinated, integrated and comprehensive plan for the growth, development, renewal and conservation of the State and its regions; • To prepare a long-term Infrastructure Needs Assessment, which shall provide information on present and prospective conditions, needs and costs with regard to State, county and municipal capital facilities, including water, sewerage, transportation, solid waste, drainage, flood protection, shore protection and related capital facilities; • To develop and promote procedures to facilitate cooperation and coordination among State agencies and local governments; • To provide technical assistance to local governments; • Periodically review State and local government planning procedures and relationships; review any bill introduced in either house of the Legislature which appropriates funds for a capital project
N.J.S.A. 58:16A-66 et seq.	This Act granted the Commissioner of the Department of Environmental Protection authority to develop a flood early-warning system in consultation with the U.S. Army Corps of Engineers (USACE) and in coordination with NJOEM in the Division of State Police	NJDEP/NJOEM have led the efforts for the development of the flood early warning system NJOEM and several of the counties in the central and northern tier of the State above the coastal plain have live rain, stream, and flood gauges. In the back bays and along tidal waters in 14 coastal counties, the U.S. Geological Survey (USGS) manages the New Jersey Tide Telemetry System. All systems transmit telemetry continuously to the NWS, USGS, State Climatologist, NJDEP, NJOEM and all affected counties and many municipalities. These systems were created and installed with federal assistance through NOAA and USACE.

Notes:

- CAFRA* Coastal Area Facility Review Act
- CZM* Coastal Zone Management
- EPA* Environmental Protection Agency
- FEMA* Federal Emergency Management Agency
- FHACA* Flood Hazard Are Control Act
- NFIP* National Flood Insurance Program
- NJAC* New Jersey Administrative Code
- NJDEP* New Jersey Department of Environmental Protection
- NJOEM* New Jersey Office of Emergency Management
- NJPDES* New Jersey Pollution Discharge Elimination System
- N.J.S.A.* New Jersey Statues Annotated

- NOAA* National Oceanic Atmospheric Administration
- NWS* National Weather Service
- PDA* Personal digital assistant
- USACE* U.S. Army Corps of Engineers
- WMP* Wastewater Management Plan



Capabilities by Hazard

In addition to the program, policy, legal, and regulatory capabilities assessed, the MCT reviewed New Jersey capabilities based on each type of hazard. This section provides a brief description of that assessment.

Storms and Flooding

By far, the most repetitive type of disaster affecting New Jersey is flooding caused by storms. The NJOEM has established a strong working group with all 21 County OEMs to use HURREVAC software for tracking hurricanes. HURREVAC allows NJOEM and counties to work as a unified team, coordinating notification, communication, activations, public warning, and evacuation and sheltering efforts. By operating together, the State and the counties serve the public better by providing the same advisories and actions.

As part of this effort, an extensive set of e-mail groups has been established and used for all types of communications and warnings. Particularly when an approaching storm warrants monitoring, NJOEM sends out e-mails with State EOC status information and advice embedded in jpeg files to keep all emergency managers Statewide up to date with NJOEM's direction. NJOEM also uses conference calling with the National Weather Service (NWS) and County Emergency Management Offices to share specific information and needs. Resources are deployed as early as possible to prepare for storm impacts.

Public warning systems have been established in key municipalities along the Atlantic coast. Weather monitoring stations, tide telemetry gauges, river and rain gauges, and consolidated computer-based software have been acquired for the purpose of covering the entire State with local-level monitoring. New Jersey is one of the few states in the nation to have its own WeatherNet.

Data from these systems have provided the NJOEM and county and local planners with valuable hazard and vulnerability information. Funding has been granted to many small local projects based on flood potential and flood damages. This same information also helped to analyze flood inundation maps used by the NJOEM Preparedness Unit in developing Reverse Lane plans and strategies for hurricane evacuation. New Jersey now has four fully functional plans, one each for the coastal counties of Cape May, Atlantic, Ocean, and Monmouth, involving five State and Interstate highways. These plans are periodically exercised to confirm their operational readiness.

Several different types of public information methods were employed over the past few years, all targeted at educating the public about hazards and most importantly, what individuals can do to both prepare and protect their lives and property. Brochures, magnets, full-size signage, handouts, and other items have been purchased and distributed, some in bi-lingual formats. This effort has been extremely well received and has extended to other projects such as establishing hurricane insurance programs and the distribution of emergency information through real estate brokers for summer vacationers.

Many large-scale projects and programs are continuing, such as dune replenishment, dune fortification, bulkheading, fencing, grass plantings, and grading, which all have helped to build up New Jersey beach fronts to better protect against storm surge and wave action. Inland flood-control measures are being implemented along rivers, creeks, and culverts. Many jurisdictions have instituted regular stream and culvert cleaning and tree-trimming programs just prior to storm seasons in spring and fall. Structural elevations have been adjusted in many cases where properties can be maintained.

For the past 5 years, NJOEM and other New Jersey agencies use Hazards U.S. (HAZUS) software to combine soil, demographic, and infrastructure data to estimate losses and vulnerabilities from natural hazards. This software also allows policy makers to target stricter development standards for targeting hazard mitigation.



The NJOEM has joined the New York Consortium on Earthquake Mitigation, along with New York City, New York State, New Jersey Geological Survey, Columbia and Princeton Universities, and several counties in the metro New York area. This Consortium is concentrating efforts on assessing the vulnerabilities of the metro New York area and identifying ways to better protect life and property by running model simulations. These computer exercises reveal which areas fail first, how damages result, and what economic and socioeconomic effects result, giving a comprehensive picture of total impact.

Forest Fires

Wildfires are a major concern in years when drought was prevalent. Several large fires struck the Pine Barrens and other forested areas of New Jersey. Fire services have employed isolation and pre-burn techniques to limit the total acreage affected. This has had excellent results, and New Jersey forests have rebounded well. Fire coordinators continue these programs throughout the dry season.

Dam Failures

NJDEP has a group dedicated to administering a strict and regulated dam emergency planning initiative with all dam owners and operators in the State. Emergency notification and public warning systems are a required element of these plans. Inspections and fortification programs have been instituted to deal with aging dams as well as increased at-risk (downstream) populations. NJOEM reviews these plans, paying particular attention to immediate notification systems and emergency response actions.

6.2.3 New Programs and Changes in Capabilities

In response to Superstorm Sandy, Governor Christie's mission has been to ensure that every possible avenue of relief is pursued to assist in the recovery and rebuilding of the State of New Jersey. As part of the State's long-term recovery strategy, the State has committed to building back better and stronger by pursuing resilient infrastructure projects and mitigation opportunities to prevent future damage, and utilizing construction techniques and materials that will better withstand future weather events. This is accomplished through numerous initiatives and programs such as FEMA's Public Assistance program, FEMA's Hazard Mitigation Assistance program, and new State programs and initiatives to achieve recovery goals and mitigate against future losses.

New programs, initiatives and changes identified throughout the 2014 Plan update planning process include the following:

The **Governor's Office of Recovery and Rebuilding (GORR)** was established to lead the recovery efforts after Superstorm Sandy. The GORR taps the institutional knowledge and bandwidth of New Jersey state agencies in recovering from Superstorm Sandy. The working group structure developed by Governor Christie's recovery team is designed to complement the federal long-term recovery structure, allowing the State to efficiently identify federal resources and coordinate New Jersey's recovery.

NJOEM has increased its capabilities since the 2011 Plan. The Recovery Bureau was organized in 2013 and added a dedicated Finance Unit to support the fiscal functions of both the Public Assistance and Mitigation Units. The Finance Unit ensures timely reimbursements and fiduciary responsibility.

Through disaster funding, contracted staff have been added to support NJOEM Superstorm Sandy related mitigation efforts. To further ensure support, NJOEM has enlisted the services of consultants that specialize in those areas necessary for a successful mitigation program. NJOEM currently has consultants that specialize in mitigation planning and all aspects of the programmatic portion of federal mitigation programs.



During the summer of 2013, the NJOEM Mitigation Unit supplemented its ranks with a dedicated Mitigation Unit Lead and a contracted staff planner to address local plan reviews and to manage local plan coordination. This contracted staff planner has begun to review local plans prior to FEMA review to ensure incorporation of State mitigation requirements and to confirm the plans meet regulatory requirements. At present, the Mitigation Unit Lead has been installed to provide various mitigation functions including local plan review. In addition, the State has used consultant support to augment and support the planning process. With a growing staff, the Mitigation Unit continues to provide support in planning and project management.

Superstorm Sandy Housing Recovery Assistance Programs – With a focus on the most impacted communities throughout the State, New Jersey is offering aid through grant awards to homeowners who were impacted by Superstorm Sandy (<http://www.renewjerseystronger.org/>). The New Jersey Department of Community Affairs (DCA) is leading the Superstorm Sandy Housing Recovery Assistance programs which are outlined below. Prior to Superstorm Sandy, there was no State-run elevation program; it was run at the local level.

- Sandy Homebuyer Assistance Program
- Homeowner Resettlement Program
- Homeowner Reconstruction, Rehabilitation, Elevation and Mitigation Program
- Landlord Rental Repair Program
- Landlord Incentive Program
- Neighborhood Enhancement Program
- Predevelopment Loan Fund for Affordable Rental Housing
- Sandy Special Needs Housing Fund
- Fund for Restoration Multi-Family Rental Housing

Elevation of Properties – Prior to Superstorm Sandy, there was no State-run elevation program; it was administered at the local level. Post Superstorm Sandy, NJDEP is leading the elevation program for HMGP funding.

Acquisition of Properties in Repetitive Flood Loss Areas - Using federal disaster relief resources, NJ DEP began implementing a buyout program to acquire properties from willing sellers in repetitive flood loss areas. Properties acquired by the State will eventually be razed and maintained as open space, thus reducing the risk of future flood waters, while keeping people and property out of harm's way.

There has been a change between the 2011 and 2014 plan regarding the reliance on the **Green Acres Program**. Though applicable regulations and programs for green acres remain, a sustainable source of funding is not currently available, thus, areas where this program was previously highlighted have been removed from the 2014 Plan update.

Liquid Fuel Resilience Program - A portion of Superstorm Sandy HMGP funds will be used to address emergency liquid fuel challenges highlighted during Superstorm Sandy by building resilience in fuel supply and distribution.

Post Sandy Planning Assistance Grant Program - The New Jersey Department of Community Affairs launched this program to communities with planning grants to enable the development of strategic recovery plans, preparation of community design standards specific to flood hazard areas, and analyses of local land use practices to facilitate a smart and efficient rebuilding process at the local level. As part of the program, communities have also been encouraged to combine resources to pursue regional projects and solutions where feasible.



Energy Resilience Program - To examine energy resiliency, the New Jersey Board of Public Utilities, the New Jersey Department of Environmental Protection, the New Jersey Office of Homeland Security and Preparedness, and the New Jersey Office of Emergency Management have been collaborating with the U.S. Department of Energy and the National Renewable Energy Laboratory to study the State's energy vulnerabilities, and identify opportunities to leverage commercially available technologies to address back-up power generation needs at critical facilities. New Jersey is encouraging the use of innovative technologies – including combined heat and power, fuel cells, and solar power with storage capability – which combine energy efficiency and greater resiliency.

The State agency Capability Assessment Questionnaire provided the opportunity for agencies to report changes in mitigation capabilities. A summary of the responses received are presented below and also may be found in Appendix G:

New Jersey Department of Environmental Protection Division of Water Supply and Geoscience - Recovery from Superstorm Sandy has highlighted the need to assess and protect critical water supply infrastructure especially in coastal regions. New data sharing and emergency response procedures are being implemented to promote greater system resiliency during and after major events.

New Jersey Department of Environmental Protection Water Resource Management -The Program is in the process of establishing a disaster relief fund that will be able to provide short term or bridge loans to entities that are in need of an upfront cash flow. The term of the loan is limited to three years and is designed to be reimbursed after the receipt of alternate funding sources (e.g., FEMA, CDBG). The Program is in the process of developing guidance for Flood proofing, Auxiliary Power, proper Asset Management Planning, Operation and Maintenance, stormwater, and sludge resiliency. An initiative to implement a new individual permit program for the reduction of Combined Sewer Overflows is well underway. In addition, the Program is expanding its Green Infrastructure Program through training, outreach, and tailored permit requirements.

New Jersey Department of Agriculture – The Department is pursuing further integration and standardization of County Animal Response Teams (CARTs) and Animal Emergency Working Group (AEWG) functions through a wider statewide effort.

New Jersey Department of Environmental Protection, Bureau of Dam Safety & Flood Control - NJDEP continues to be a Coordinating Technical Partner (CTP) with FEMA Region 2 on the production of Flood Risk Map products.

New Jersey Department of the State - Office of Planning Advocacy – Business Action Center - While the general focus and capabilities remain the same as in the past, the new association with the Business Action Center has resulted in an increased emphasis on business losses associated with hazard events and protecting economic activity in New Jersey. In addition, given reduced staffing levels and changing workforce, our capacity and areas of expertise have shifted.

New Jersey Department of Environmental Protection – Passaic River Basin Flood Advisory Commission – Stream Cleaning Grant Program - Announced in September 2013, a \$3 million fund administered through the NJDEP was established to support local stream cleaning projects for communities throughout the Passaic River region.

New Jersey Department of Transportation - The 511NJ system now includes a Personalized Traffic Alert Service. Motorists can subscribe to 'My 511NJ' and have the traffic conditions sent to their cell phone, PDA, or e-mail. Currently, GIS is being expanded to include ramps and more local roads. NJDOT is developing a North Barrier Island Coastal Evacuation Plan and CONOPs/Operations Plan for the Shore Region for the 2013



Hurricane Season. Ongoing deployment of the IDRUM (Interactive Detour Route Mapping) application takes the diversion routes and incorporates them into a web-based “point-and-click” application. Further, the NJDOT has increased its salt-brine making capabilities.

New Jersey Geological and Water Survey – Funded through a 2010 Federal Pre-Disaster Mitigation Planning (PDM) grant, the NJDEP and the New Jersey Geological and Water Survey have conducted a study of the problem of ground instability and subsidence, or surface depressions, associated with abandoned mines in the northern part of the state. The result was the creation of a database that can guide State, county and local planners in making future land use decisions, and provides valuable data on abandoned mine hazards to support local hazard mitigation plans. Other efforts by the NJGWS include completion of offshore investigations for sand and gravel will assist beach and dune replenishment to protect the coastlines during storms.

New Jersey Highlands Council - Specific guidance related to Forest Resource Management Plans and Stream Corridor Protection, Mitigation and Restoration Plans is in final development and will be released to the public in the near future.

Port Authority of New York & New Jersey (PANYNJ) – In the wake of Superstorm Sandy, the PANYNJ formed the Office of Storm Mitigation and Resilience to manage all aspects of FEMA 404 and 406 mitigation related to their facilities.

6.3 Local Capability Assessment

44 CFR 201.4(c)(3)(ii): [The State mitigation strategy shall include] ‘...a general description and analysis of the effectiveness of local mitigation policies, programs and capabilities.’

New Jersey continues to improve hazard mitigation capabilities and analyze the effectiveness of local mitigation policies, programs and capabilities. The following subsections present local capabilities that include hazard mitigation planning, execution of hazard mitigation projects, municipal outreach, agency liaison, management of local mitigation plan information, and mitigation policies. In addition, as discussed in Section 3 (Coordination of Local Planning), local capabilities are also demonstrated through participation in incentive programs to support the reduction of flood vulnerability such as the NFIP and CRS programs.

6.3.1 Local Capability Overview

NJOEM has made funding for local and regional mitigation planning a top priority and has worked closely with counties to obtain their funding. As a result, the State has obtained funding to assist all counties through a variety of Federal Hazard Mitigation Assistance grants and has obligated funds for countywide, multi-jurisdictional plans as a way to leverage the funding to efficiently support local planning.

Since 2011, all 21 counties have actively participated in the development of initial hazard mitigation plans through a series of FEMA grants including one in progress at the time of the 2014 Plan update (Ocean County). Refer to Section 3 (Coordination of Local Planning) Figure 3-1 which illustrates the status of New Jersey HMPs as of September 1, 2013. Table 3-1 shows the status of statewide mitigation plans and plan adoption dates. Currently there are four counties that have expired plans and are updating their plans as of the date of this HMP. The number of updates currently underway or counties who have requested FEMA funding to update their plan during the next State HMP planning cycle demonstrates that local jurisdictions acknowledge the benefits of developing and adopting local HMPs.



New Jersey is composed of 21 counties covering 565 municipalities, and follows a “home rule” philosophy that each municipality is responsible for local enforcement of building codes, floodplain management, emergency management, and zoning of local ordinances. To ensure a minimum set of standards, New Jersey has passed laws and regulations mandating that each municipality adopt local ordinances with the same basic criteria so that jurisdictions may add additional requirements, but cannot have fewer requirements than the State. Because each municipality has a core set of policies, programs, and capabilities at its disposal, jurisdictions are prepared with more effective mitigation efforts against hazards, regardless of their relative size, population, or wealth.

While local mitigation policies, programs, and capabilities will be discussed in detail in local and multi-jurisdictional hazard mitigation plans that are now being prepared and updated, New Jersey mandates compliance with the Municipal Land Use Law, Uniform Construction Codes, Floodplain Management, and Growth Management, and strongly encourages land and water preservation through incentive programs. These mandates translate into local ordinances, policies, or programs that regulate and enforce zoning for building and open space within the municipalities. Table 6-6 through 6-9 highlights the State laws that drive the State’s policies to support local jurisdictions’ abilities to impact hazard mitigation. Additional information may be found in Section 3 (Coordination of Local Planning).

Table 6-6. New Jersey Policies that Impact Local Hazard Mitigation Efforts – Land Use Planning Policy

Land Use Planning Policy	
Description	State of New Jersey Municipal Land Use Law L.1975, c. 291, s. 1, eff. Aug. 1, 1976, is the legislative foundation for the land use process, including decisions by Planning Boards and Zoning Boards of Adjustment, in the State of New Jersey. It defines the powers and responsibilities of boards and is essential to their functions and decisions. It also provides the required components of a municipal Master Plan.
Applicability	Every municipal agency shall adopt and may amend reasonable rules and regulations, not inconsistent with this act or with any applicable ordinance, for the administration of its functions, powers, and duties.
Effectiveness	These plans help jurisdictions review their land use plans and policies with public participation. While, the Municipal Land Use Law requires that each municipality prepare a comprehensive plan and update that plan every 6 years, comprehensive plan update cycles are inconsistent and communities may be operating under plans that are outdated and ineffective at addressing current conditions. Further, local comprehensive planning is often force to reconcile competing interests, such as the need to redevelop Brownfield sites that may be located in hazard-prone areas. While local capabilities continue to increase to reduce the impacts of hazards, progress is still possible regarding integration of local HMP risk assessment results and mitigation goals and strategies into comprehensive and land use planning.



Table 6-7. New Jersey Policies that Impact Local Hazard Mitigation Efforts – Floodplain Management and Building Codes Policies

Floodplain Management Policy	
Description	New Jersey State Law Flood Hazard Area Control Act (NJSA 58:16A-52). The National Flood Insurance Act of 1968 is a federal program (NFIP) enabling property owners in participating communities to purchase insurance as protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. As further incentive for communities to surpass the NFIP basic requirements, the Community Rating System (CRS) recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements.
Applicability	The Act and regulations attempt to minimize damage to life and property from flooding caused by development within fluvial and tidal flood hazard areas, to preserve the quality of surface waters, and to protect the wildlife and vegetation that exist within and depend upon such areas for sustenance and habitat. While it does not require local adoption, as it is enforced by the NJDEP, the floodplain ordinances of each municipality need to be reviewed to be in compliance with this new regulation. (See also Building Codes Policy) NFIP: Municipality participation is voluntary; however, members of the NFIP must have the required aspects of the NFIP codified within their zoning, floodplain, and land development ordinances and CRS additional aspects if the municipality is a member of CRS.
Effectiveness	NFIP: There are 546 municipalities that participate in the NFIP in the State of New Jersey. A total of 45 of the 566 municipalities participate in the CRS program. There are 9 communities with a Class 9 rating (5% premium reduction); 23 with a Class 8 rating (10% premium reduction); 11 with a Class 7 rating (15% premium reduction); and 2 with a Class 6 rating (20% premium reduction). The average savings per policy holder is about \$87.00 per year or a total community savings of about \$9,384,397 per year. The New Jersey Dam Safety program, new State stormwater management requirements, and the development of all-hazard mitigation plans are some of the efforts at the State level that are available to provide CRS credits for all New Jersey municipalities. Local municipalities are showing an increased interest in CRS. In early 2014, Rutgers University Jacques Cousteau National Estuarine Research Reserve hosted a seminar for communities interested in becoming involved in CRS and a second seminar on the CRS application process. Currently a number of communities are in the process of joining CRS, and many are actively working on improving their CRS class, prompted in part by rising flood insurance premiums.
Building Codes Policy	
Description	Uniform Construction Code (Uniform Construction Code Act of 1975[UCC]) requires all jurisdictions to have current land use master plans (reexamined every 6 years), zoning, and other land development ordinances. The UCC adopts up-to-date building codes as its Building Subcode and One- and Two-Family Subcode. These Subcodes contain requirements that address construction in both A and V flood zones. Also, all new construction is required to comply with the UCC for flood zone construction. In the shore communities, older at-grade structures have been routinely razed and replaced with new and often larger structures, all now conforming to the NFIP's requirements for A-zone and V-zone construction. Thus, through the building boom of the 1990s and into the new millennium, there have been thousands of structures modified to FEMA's more stringent requirements or newly constructed to the up-to-date Building Subcodes of the Uniform Construction Code, especially with respect to homes built on piling at or above the base flood elevation for that zone. This in itself is a form of mitigation. However, there are thousands of older homes still at grade that remain vulnerable to the ravages of coastal storms and hurricanes.
Applicability	New Jersey State Law requires that all municipalities adopt ordinances that follow the UCC. In January 2013, the State established by emergency rule the best available data from FEMA's latest flood maps, plus one foot of freeboard, as the general rebuilding standard to adapt to changing flood hazard risks and corresponding federal flood insurance rates.
Effectiveness	Building codes mandate best practices and technology, much of which is designed to reduce or prevent damage from occurring when structures are under stress. As evidenced during recent storm events (e.g. Hurricane Irene and Superstorm Sandy), structures built to code and sufficiently elevated suffer far less damage during hazard events. During flood events, non-mitigated pre-FIRM properties suffer the greatest losses. The State is conducting ongoing efforts to educate local building code officials.



Table 6-8. New Jersey Policies that Impact Local Hazard Mitigation Efforts – Growth and Shoreline Management Policies

Growth Management Policy	
Description	Land preservation and recreation comprise one of the cornerstones of New Jersey’s smart growth policy. The New Jersey Statewide Comprehensive Outdoor Recreation Plan provides Statewide policy direction to the State, local governments, and conservation organizations in the preservation of open space and the provision of public recreation opportunities. The State Plan was prepared and adopted by the State Planning Commission according to the requirements of the State Planning Act of 1985 as amended (NJSA 52:18A-196 et seq.) to serve as an instrument of State policy to guide State agencies and local government in the exercise of governmental powers regarding planning, infrastructure investment and other public actions and initiatives that affect and support economic growth and development in the State.
Applicability	Green Acres Program, Open Space Tax Program, and Development and Redevelopment Plan. The State Planning Act has enhanced the traditionally limited role of county land-use planning and control. Also provides tools for municipalities when preparing their master land use plans and better opportunity for a comprehensive approach to planning so not to harm or be in conflict with neighboring Municipalities’ plans. The State may use the plan updates to link future development with State-led mitigation strategies. For instance, master plan revisions can be conditioned on certain State land use rules, such as CAFRA, to ensure future development occurs while maximizing the protection of open space to reduce the impact of flooding in a community.
Effectiveness	This statute has achieved acquisitions of more than 1.2 million acres of open space and farmland for preservation in communities across the State. NJDEP Green Acres/Blue Acres funding has supported numerous property acquisitions in flood prone areas within the State.
Shoreline Management Policy	
Description	Coastal Area Facility Review Act (CAFRA) (NJSA 13:19). The CAFRA Law regulates almost all development along the coast for activities including construction, relocation, and enlargement of buildings or structures; and all related work, such as excavation, grading, shore protection structures, and site preparation.
Applicability	CAFRA applies to projects near coastal waters in the southern part of the State. The law divides the CAFRA area into pieces or zones, and regulates different types of development in each zone. Generally, the closer a structure is to the water, the more likely it is that development will be regulated. The CAFRA law regulates almost all development activities involved in residential, commercial, or industrial sectors, including construction, relocation, and enlargement of buildings or structures; and all related work, such as excavation, grading, shore protection structures, and site preparation.
Effectiveness	This Law helps local communities strengthen local shoreline ordinances to provide for sufficient shoreline buffers, setbacks, and appropriate design to avoid or limit development on unstable shoreline slopes and infrequently flooded areas. However, many communities have not passed these types of ordinances because of intense political pressure to build along their coastal boundaries. This law is implemented through New Jersey’s Coastal Zone Management Rules N.J.A.C. 7:7E-1.1 et seq. Since they were finalized in September 1980, these rules have regulated larger developments (25 residential units or more, 300 commercial parking spaces or more) in coastal high-hazard areas, erosion hazard areas, flood hazard areas and permits issued required construction in accordance with the NFIP requirements in A and V zones. Effective July 1994, the CAFRA jurisdiction was expanded to include every single-family residential development within 150 feet of the mean high water line, beach, or dune. The threshold for regulation over commercial development was lowered to capture smaller commercial developments and the NJDEP gained authority over any disturbance to a beach or dune area or the placement of a structure in these areas. Effective November 5, 2007, the Coastal Zone Management rules incorporate the new and more stringent Flood Hazard Area Control Act rules standards, including protection of riparian buffers along tidal water courses that can be 50, 150, and 300 feet along environmentally sensitive (Category 1) waterways.



Table 6-9. New Jersey Policies that Impact Local Hazard Mitigation Efforts – Critical Area Protection Policy

Critical Area Protection Policy	
Description	Green Acres Program; Blue Acres Program; Historical Preservation Program; Farmland Preservation; Wetlands Act of 1970 (N.J.S.A. 13:9A); Soil and Erosion and Sediment Control Act (N.J.S.A. 4:24); Highlands Water Protection and Planning Act (N.J.S.A. 13:20-1)
Applicability	These programs provide funding for the State, municipalities, and counties to purchase land for open-space preservation and recreation. The Wetlands Act of 1970 (N.J.S.A. 13:9A) provide rules and regulations governing development in wetland areas of New Jersey. New Jersey has 15 soil conservation districts, following county boundaries that implement the New Jersey Soil Erosion and Sediment Control Act (N.J.S.A. 4:24), which governs certain aspects of new development. The Highlands Act calls for a prohibition on development on steep slopes defined in the Act.
Effectiveness	\$3.3 billion public investment in open-space preservation and recreation by the State since 1961. As noted above, NJDEP Green Acres/Blue Acres funding has supported property acquisitions in flood prone areas within the State.

- Notes:
- CAFRA *Coastal Area Facility Review Act*
 - CRS *Community Rating System*
 - FEMA *Federal Emergency Management Agency*
 - NFIP *National Flood Insurance Program*
 - N.J.A.C. *New Jersey Administrative Code*
 - NJDEP *New Jersey Department of Environmental Protection*
 - NJSA *New Jersey Statutes Annotated*
 - UCC *Uniform Construction Code*

As discussed in Section 3 (Coordination of Local Planning), as part of the 2014 Plan update process, the local HMPs were reviewed and where available local legal and regulatory capability information was extracted and compiled into a matrix. The matrix is included in Appendix N. The purpose of this exercise was to perform a baseline assessment on how local capabilities are captured in local HMPs and to integrate the data into the 2014 Plan update. If the information was not available in the local HMP, entries are blank for that local jurisdiction in Appendix N. In other words, blank entries should not be interpreted that the capabilities do not exist; they were just not readily available in the local HMP. For example, there are jurisdictions across the State that have Flood Damage Prevention Ordinances by virtue of the fact they are participants in the NFIP, however, if not indicated in the local HMP it is not reflected in Appendix N.

The evaluation of local mitigation capabilities using the local HMPs proved challenging due to inconsistent planning methods, information tracking and reporting processes. In general, the local plans did not offer a detailed description of local capabilities that was conducive to data collection at the State level. The local plan review indicated that most approved plans in the State have noted only high-level summary information on local legal and regulatory capability, and do not indicate information on local floodplain administrators. This review exercise has provided an opportunity to provide constructive feedback to the State regarding the necessity of requiring consistent capability assessment formats in all local plans in addition to frequent municipal outreach programs to educate local officials regarding the duties of floodplain administrators.

Currently all local HMPs have been funded for updates. With the exception of Somerset and Ocean Counties, the remaining local HMPs will be completed between 2014 and 2017. Through their continued local outreach, NJOEM will provide recommendations and technical assistance on how to more accurately and completely assess and report local capabilities in local HMPs (see Table 6-14 for NJOEM’s new mitigation action). The SHMT will continue to update and enhance the Local Capability Assessment section of the State Plan on a yearly basis as defined in Section 7 (Plan Maintenance).



From county to the municipal entities, the ability to maintain and implement local hazard mitigation programs is mixed. This may be attributed, at least in part, to the fact that New Jersey is a “home rule” state with 565 municipalities, so overall county control of mitigation planning, and planning in general, is sometimes problematic; and that all local governments are operating with limited resources and mounting pressures to limit spending and “do more with less”.

Coordination of overall emergency management planning is more efficient and streamlined. In the development of local, multi-jurisdictional HMPs, where municipal activity is critical to building larger multi-jurisdictional plans, disparities in available resources become evident and support for obtaining best-available data and information can be problematic because of the many municipalities and their limited resources that are integral to the planning processes.

As participants in the NFIP, each municipality has a Floodplain Administrator (FPA) as identified in their local floodplain ordinance. The FPA’s role is fundamental to the effective management of floodplain resources and flood mitigation. However, during local HMP review, it is apparent that local floodplain management and administration can be a challenge on a number of fronts. Occasionally the local FPA is not aware of their designation and the responsibilities associated with that position. This can be attributed to a number of factors that include a general lack of attention to or understanding of their local code, frequent internal staffing changes, and the use of outside contractor services (e.g. engineering, code enforcement) that can change with time. A more common challenge is that floodplain management is almost always an auxiliary function, with improper consideration of the level of effort that may be required to fulfill those duties. Further, local FPAs often cite a lack of proper training, technical support, and even political support to meet their NFIP responsibilities. These challenges are not atypical for municipalities, as all local government services are constrained by limited resources.

As cited above, a challenge for many jurisdictions is that one person often serves in multiple roles and capacities. It is noted that many jurisdictions do not have certified planners on staff; therefore land use and comprehensive planning needs are contracted out. While local capabilities continue to increase to reduce the impacts of hazards, progress is still possible regarding integration of mitigation goals and strategies into comprehensive planning.

With regard to the local implementation of mitigation projects and initiatives, a commonly cited challenge is a general lack of administrative, technical and fiscal resources. While various funding sources are available to support local public and private mitigation activity, the technical and administrative challenges to both secure (e.g. grant application and Benefit-Cost Analysis) and administer such funding often exceeds local capabilities. Local match requirement on grant funding has historically challenged the initiation and implementation of both planning and project activities reliant on grant funding. Fiscal/political challenges, such as a loss of tax rateables whether real or perceived, may further challenge mitigation or promote unwise development.

While local capabilities continue to increase to reduce the impacts of hazards, progress is still possible regarding integration of local HMP risk assessment results and mitigation goals and strategies into comprehensive and land use planning. NJOEM has identified a new mitigation action to ‘promote the integration of findings and actions of local mitigation plans into other local planning mechanisms.’

New Jersey is composed of 21 counties covering 565 municipalities, and follows a “home rule” philosophy that each municipality is responsible for local enforcement of building codes, floodplain management, emergency management, and zoning of local ordinances. To ensure a minimum set of standards, New Jersey has passed laws and regulations mandating that each municipality adopt local ordinances with the same basic criteria so that jurisdictions may add additional requirements, but cannot have fewer requirements than the



State. Because each municipality has a core set of policies, programs, and capabilities at its disposal, jurisdictions are prepared with more effective mitigation efforts against hazards, regardless of their relative size, population, or wealth.

While local mitigation policies, programs, and capabilities will be discussed in detail in local and multi-jurisdictional hazard mitigation plans that are now being prepared and updated, New Jersey mandates compliance with the Municipal Land Use Law, Uniform Construction Codes, Floodplain Management, and Growth Management, and strongly encourages land and water preservation through incentive programs. These mandates translate into local ordinances, policies, or programs that regulate and enforce zoning for building and open space within the municipalities.

It is well recognized that local capabilities will grow as the need becomes apparent. Unfortunately, this need tends to only reach the point of action in the wake of long term suffering. While severe riverine flooding has been documented in certain parts of the State from the times of colonial history, active and effective land-use planning and mitigation efforts in some of these areas has a much more recent history. Cognizant of their risk after suffering chronic flood losses, communities such as Wayne Township and Atlantic City developed some of the first local HMPs in the State nearly a decade ago. Community leaders and floodplain administrators in communities in the Passaic River Basin and other flood-prone watersheds have developed strong and effective risk management programs, and actively leverage available mitigation resources.

While the risk of coastal flooding from a hurricane has long been recognized, the long relative quiet period leading up to Superstorm Sandy generally did little to promote a broad-based expansion of risk-based land use planning, code enforcement and mitigation capability building within coastal communities. Further, socio-economic pressures, including robust tourism industry and the desire to live near the ocean, have continued to challenge local land use planning, enforcement and mitigation efforts. However, clear changes are apparent in the wake of Superstorm Sandy, as local mitigation capabilities continue to expand supported both by State and Private-Non-Profit (PNP) efforts. As discussed within the State Capabilities section, the State has continued and expanded their mitigation education outreach and technical training efforts, including seminars and workshops on mitigation planning, public and private assistance, available grant programs, and benefit-cost-analysis. Local PNPs including the New Jersey Association for Floodplain Managers (NJAFM), the Jacques Cousteau National Estuarine Reserve – Rutgers University, and Monmouth College offer training, seminars and certification in floodplain management, the National Flood Insurance Program, and NFIP's Community Rating System.

Clearly, continued efforts to build local mitigation capabilities in all areas (e.g. planning and regulatory, technical and administrative, and fiscal) are vital to our State's long term management of natural hazard risk. As Federal pre- and post-disaster funding will likely never meet overall needs, communities must be encouraged and equipped to promote local mitigation efforts with available local resources. State and regional level planning guidance and support, along with continued and enhanced education and outreach, will serve as the foundation of effective and sustained local risk reduction.

6.3.2 Mitigation Project Overview

Local municipalities have been and continue to work closely with NJOEM to identify and successfully secure FEMA Hazard Mitigation Assistance funding. Refer to Tables 3-3 and 3-4 in Section 3 (Coordination of Local Planning) which indicate the ongoing projects in New Jersey funded by federal funds. Figures 3-2 and 3-3 illustrate the number of hazard planning and mitigation projects currently open by county and the funding levels of those ongoing projects.



To further facilitate hazard mitigation planning efforts, NJOEM works in cooperation with other governmental agencies and relevant industry groups to provide direction and technical assistance in the development of local and multi-jurisdictional plans and projects. With assistance from NJOEM, a number of New Jersey local jurisdictions have been successful in obtaining funds for mitigation projects. As these success stories continue, more jurisdictions will recognize the potential for mitigating hazards in their communities. The listings below represent the increased interest expressed by local jurisdictions in mitigation projects. Table 6-10 lists the mitigation grant awards (plans and projects) to New Jersey communities from 2009 through 2013, including those pending obligation.

Table 6-10. 2011- 2013 Hazard Mitigation Planning and Project Grants

Year	Sub-Grantee	Project	Funding Source	FEMA Share (\$)	Non-Federal Share (\$)	Total Project Cost (\$)
2009	Township of Wayne	Acquisition	FMA	\$2,999,985.00	\$999,995.00	\$3,999,980.00
2009	Township of Little Falls	Elevation	RFC	\$364,770.00	\$-	\$364,770.00
2009	Cape May	Hope Corson Rd Drainage Project -	HMGP	\$431,250.00	\$143,750.00	\$575,000.00
2009*	Little Falls	Fairfield Ave Pump Station -	HMGP	\$746,260.00	\$248,740.00	\$995,000.00
2009	Absecon	New Jersey Ave & Highland Blvd	HMGP	\$668,512.50	\$222,837.50	\$891,350.00
2009*	Absecon	Absecon Creek Waterfront Shore Protection	HMGP	\$436,275.00	\$145,425.00	\$581,700.00
2009	Longport	House Elevation	HMGP	\$74,100.00	\$24,700.00	\$98,800.00
2009	Galloway Township	Pomona Pond Flooding	HMGP	\$165,708.75	\$55,236.25	\$220,945.00
2009	Cumberland County	Laurel Lake Drainage Improvements	HMGP	\$511,163.00	\$170,387.00	\$681,550.00
2009*	Monmouth County	Spring Lake, Wreck Pond	HMGP	\$600,000.00	\$1,300,000.00	\$1,900,000.00
2009	Ocean County	Ocean County Disaster Mitigation Plan	HMGP	\$204,750.00	\$68,250.00	\$273,000.00
2009	Pleasantville	Lincoln Avenue Drainage	HMGP	\$149,104.50	\$49,701.50	\$198,806.00
2009	Pleasantville	Edgewater Avenue Drainage	HMGP	\$172,564.50	\$57,521.50	\$230,086.00
2009	Commercial Twp, Cumberland Co.	NJ State Police Bivalve Station	HMGP	\$40,050.00	\$13,350.00	\$53,400.00
2010	Township of Wayne	Acquisition	SRL	\$18,451,080.00	\$2,050,120.00	\$20,501,200.00
2010	Township of Little Falls	Elevation/Acquisition	SRL	\$5,973,120.00	\$663,680.00	\$6,636,800.00
2010	Borough of Lincoln Park	Acquisition	SRL	\$3,673,134.00	\$408,126.00	\$4,081,260.00
2010	NJDEP (Pomp. Lks, Lit. Falls, Wayne)	Acquisition	SRL	\$2,763,900.00	\$307,100.00	\$3,071,000.00
2010	Township of Nutley	Acquisition	FMA	\$640,875.00	\$213,625.00	\$854,500.00
2010	Township of Ocean	Acquisition	FMA	\$3,346,124.69	\$1,115,374.90	\$4,461,499.59



Table 6-10. 2011- 2013 Hazard Mitigation Planning and Project Grants

Year	Sub-Grantee	Project	Funding Source	FEMA Share (\$)	Non-Federal Share (\$)	Total Project Cost (\$)
2010	Township of Nutley		RFC	\$1,664,000.00	\$-	\$1,664,000.00
2010*	Riverside Twp	Monroe St. Flood Control Project -	HMGP	\$66,881.25	\$22,293.75	\$89,175.00
2010	Sea Bright	Bulkhead Project -	HMGP	\$1,373,964.00	\$457,988.00	\$1,831,952.00
2010	West Wildwood	Neptune Ave Roadway Elevation -	HMGP	\$292,500.00	\$97,500.00	\$390,000.00
2010	Commercial Twp	Berry Ave Flood Control Project -	HMGP	\$180,000.00	\$60,000.00	\$240,000.00
2010*	City of Atlantic City	Stormwater & Floodwater at Fisherman's Park	HMGP	\$3,225,000.00	\$1,075,000.00	\$4,300,000.00
2010	Borough of Woodbine	Roadway Drainage Improvements	HMGP	\$1,070,206.50	\$356,735.50	\$1,426,942.00
2010*	Washington Township	Drainage Improvements -	HMGP	\$210,000.00	\$70,000.00	\$280,000.00
2010	West Atlantic City, Egg Harbor Township	Gabion Mattress Installation -	HMGP	\$591,243.64	\$197,081.21	\$788,324.85
2010*	Warren Township	Alert AM Radio System -	HMGP	\$43,013.25	\$14,337.75	\$57,351.00
2010	Park Ridge Borough	NNJ Multi-hazard Communication Project -	HMGP	\$14,396.25	\$4,798.75	\$19,195.00
2010	NJDEP (Pompton Lakes, Township)	Acquisition	HMGP	\$2,247,187.50	\$749,062.50	\$2,996,250.00
2010*	Ocean City	Pump Station Project	HMGP	\$4,984,383.60	\$3,218,511.40	\$8,202,895.00
2010	Borough of Fairlawn	Flood Warning System	HMGP	\$15,690.00	\$5,230.00	\$20,920.00
2010*	Union Beach	Roadway Elevation Project	HMGP	\$513,343.11	\$171,114.39	\$684,457.50
2011	Township of Fairfield	Acquisition	SRL	\$1,045,237.51	\$116,137.51	\$1,161,375.02
2011	Borough of Pompton Lakes	Elevation (14) / Acquisition (13)	SRL	\$4,592,700.00	\$510,300.00	\$5,103,000.00
2011	Borough of Lincoln Park	Elevation(5) /Acquisition (11)	SRL	\$4,489,200.00	\$498,800.00	\$4,988,000.00
2011	NJDEP (Lincoln Park)	Acquisition	SRL	\$6,625,800.00	\$736,200.00	\$7,362,000.00
2011	Township of Pequannock	Acquisition	FMA	\$4,950,000.00	\$550,000.00	\$5,500,000.00
2011	Township of Little Falls	Elevation/Acquisition	FMA	\$5,643,270.00	\$627,030.00	\$6,270,300.00
2011	Township of Harmony	Acquisition	RFC	\$3,562,500.00	\$1,187,500.00	\$4,750,000.00
2011	Township of Wayne	Acquisition	HMGP	\$6,256,772.00	\$2,944,363.29	\$9,201,135.29
2011	Borough of Lincoln Park	Acquisition	HMGP	\$4,079,730.00	\$1,359,910.00	\$5,439,640.00



Table 6-10. 2011- 2013 Hazard Mitigation Planning and Project Grants

Year	Sub-Grantee	Project	Funding Source	FEMA Share (\$)	Non-Federal Share (\$)	Total Project Cost (\$)
2011	Township of Fairfield	Acquisition	HMGP	\$3,094,125.00	\$1,031,375.00	\$4,125,500.00
2011	Borough of Pompton Lakes	Acquisition	HMGP	\$3,120,975.00	\$1,040,325.00	\$4,161,300.00
2011	Township of Pequannock	Acquisition	HMGP	\$3,847,444.00	\$1,282,481.33	\$5,129,925.33
2011	Borough of Manville	Acquisition	HMGP	\$2,844,224.00	\$948,074.67	\$3,792,298.67
2011	Township of Little Falls	Acquisition	HMGP	\$2,943,600.00	\$981,200.00	\$3,924,800.00
2011	City of Paterson	Acquisition	HMGP	\$4,322,336.00	\$1,440,778.00	\$5,763,114.00
2011	Township of Cranford	Elevation	HMGP	\$3,136,509.00	\$1,045,503.00	\$4,182,012.00
2011	Borough of New Milford	Acquisition	HMGP	\$1,209,226.00	\$403,075.00	\$1,612,301.00
2011	Borough of Westwood	Acquisition	HMGP	\$1,551,043.00	\$517,014.00	\$2,068,057.00
2011	Borough of Middlesex	Acquisition	HMGP	\$1,904,550.00	\$634,850.00	\$2,539,400.00
2011	Township of Denville	Acquisition (13 acquisitions, 1 elevation)	HMGP	\$1,503,262.00	\$672,500.00	\$2,175,762.00
2011*	Highlands	Elevation	HMGP	\$784,000.00	\$261,333.33	\$1,045,333.33
2011	Califon/Lebanon	Elevation	HMGP	\$392,000.00	\$130,666.67	\$522,666.67
2011	NJDEP	Flood Warning System 5% Set-Aside	HMGP	\$77,000.00	\$25,666.67	\$102,666.67
2011*	NATURE NURTURE CENTER	7% Plan	HMGP	\$108,919.00	\$36,306.33	\$145,225.33
2011	State House Garage	Pump Station Project	HMGP	\$1,200,000.00	\$400,000.00	\$1,600,000.00
2011	NJDEP (Rahway, Woodland Park, Oakland, Lumberton, Bridgewater, Califon/Lebanon, Manalapan) [10]	Acquisition (10)	HMGP	\$980,000	\$2,847,500	\$3,827,500
2011	Oakland	Elevation	HMGP	\$98,000	\$33,000	\$131,000
2011	Lumberton	Elevation (4)	HMGP	\$392,000	\$248,250	\$640,250
2011	Millstone	Elevation (6)	HMGP	\$588,000	\$196,000	\$784,000
2011	Englishtown	Elevation	HMGP	\$98,000	\$33,000	\$131,000
2011	Hudson County	HMP update - 7% Plan	HMGP	\$187,500	\$62,500	\$250,000
2011	West Deptford	Elevation/Acquisition	HMGP	\$98,000	\$32,667	\$130,667



Table 6-10. 2011- 2013 Hazard Mitigation Planning and Project Grants

Year	Sub-Grantee	Project	Funding Source	FEMA Share (\$)	Non-Federal Share (\$)	Total Project Cost (\$)
2011	Middleton	Elevation	HMGP	\$98,000	\$32,667	\$130,667
2011	Howell	Acquisition	HMGP	\$990,000	\$330,000	\$1,320,000
2012	4 Atlantic County Municipalities	All Hazards Pre-Disaster Mitigation Plan	PDM	\$60,000.00	\$20,000.00	\$80,000.00
2012	Somerset County	Multi-Jurisdictional Multi Hazard Plan Update	PDM	\$90,000.00	\$30,000.00	\$120,000.00
2012	Burlington County	Multi-Jurisdictional Multi Hazard Plan Update	PDM	\$73,537.50	\$24,512.50	\$98,050.00
2012*	Ocean City	North Pump Station Project	PDM	\$2,994,000.00	\$5,208,895.00	\$8,202,895.00
2012	Township of Ocean	Acquisition - Poplar Village Phase 2	FMA	\$3,346,124.69	\$1,115,374.90	\$4,461,499.59
2012	Sea Bright	Elevation - 25 Center Street	SRL	\$231,336.00	\$25,704.00	\$257,040.00
2012	Howell Township	Acquisition	HMGP	\$852,750	\$284,250	\$1,137,000

Source: NJOEM 2013

Note: * indicates the award is pending obligation.

FMA Flood Mitigation Assistance

HMGP Hazard Mitigation Grant Program

PDM Pre-Disaster Mitigation

RFC Repetitive Flood Claims

SRL Severe Repetitive Loss

As a result of Superstorm Sandy, project awards are still pending at this time. However, funding allocation categories have been determined by the State as the following:

- Planning
- Retail Fuel
- Energy
- Local infrastructure
- Acquisitions
- Elevations

While the actual local hazard mitigation plan actions statewide were not compiled, for the purposes of the 2014 Plan Update an analysis was conducted to compare the common existing hazard mitigation actions and strategies of the 20 existing County hazard mitigation plans (Ocean County’s plan is in progress). The list below summarizes the common hazard mitigation measures in the local hazard mitigation plans by general action/strategy.

- Retrofit vulnerable critical facilities and infrastructure
- Flood control measures
- Emergency Power/Generator
- Communication projects
- Stream clearing



- Stormwater improvements/maintenance/inspections
- Public outreach/education/awareness
- Encourage higher regulatory standards
- Promote/participate in CRS
- Public awareness
- Improved floodplain management
- Improve data collection related to hazard data and critical facility inventories
- Address RL and SRL properties
- Reduce losses to all buildings/infrastructure

It is evident that all mitigation types are addressed by the Counties: local plans and regulations; structure and infrastructure projects; natural systems protection and education and awareness programs. As noted in Section 7 (Plan Maintenance), to better document mitigation project effectiveness, NJOEM now has an on-line tracking tool called *NJEM.grants* to track all mitigation project progress through the grant application, project execution and close-out phases.

6.4 Mitigation Actions

As required by FEMA, the MCT and SHMT completed a comprehensive evaluation of the mitigation strategies and actions from the previous plans, and reported on the status of each. In addition, State agencies were provided the opportunity to include new strategies or actions in the 2014 Plan update. New actions were prioritized to ensure they are cost-effective, environmentally sound, and technically feasible using the methodology outlined below.

6.4.1 Recent Mitigation Accomplishments

While the State recognizes that it has much to do to address the State's long-term vulnerability to natural and man-made hazards, significant mitigation progress and accomplishments have been made throughout the State to address our hazard risk. The following examples highlight some of these accomplishments.

A number of State agencies including New Jersey Office of Emergency Management (NJOEM), New Jersey Department of Environmental Protection (NJDEP) and the New Jersey Department of Community Affairs (DCA) have ongoing programs to mitigate vulnerable structures via elevation and acquisition, including programs to target Repetitive and Severe Repetitive Loss properties. Using federal disaster relief resources, NJDEP began implementing a \$300 million buyout program to acquire properties from willing sellers in repetitive loss areas. Approximately 1,000 homes impacted by Sandy will be targeted by the buyout program, in addition to another 300 repetitively flood-damaged homes located in the Passaic River Basin. The buyout program is a joint effort of the NJDEP, NJOEM and the Federal Emergency Management Agency (FEMA). To date 658 SRL properties have been elevated or acquired and demolished. This is also a high priority in the Hazard Mitigation Grant Program (HMGP) Administrative Plan (post-Superstorm Sandy).

The State continues to work to better inform local governments and the public of available mitigation resources, and build local mitigation capabilities. In conjunction with FEMA, NJOEM presented post-Sandy mitigation workshops in all 21 New Jersey counties to advise them of available HMGP funding. The workshops were subsequently supported by technical assistance upon request. Further, NJOEM continues to conduct community outreach, and provide workshops and training to support participation in mitigation grant programs and the National Flood Insurance Program (NFIP).



NJOEM has allocated \$50 million to create the HMGP Local Projects program, which will enable county and local governments across all 21 counties to pursue regional and local resiliency projects. These funds can be used to advance drainage, flood control, energy resiliency and other hazard mitigation projects. Table 6-7 identifies local mitigation projects that have been funded through these funding sources.

In Spring 2014, the NJDEP and U.S. Army Corps of Engineers (USACE) released the first phase of a study evaluating long-term flood risk management alternatives to help Passaic River Basin communities deal with chronic flooding. The study looked at various combinations of flood management strategies, and has focused on three alternatives that will be the subject of detailed Phase II study. Further, the NJDEP and USACE are working together to advance beach and dune construction projects that will reduce risk to life, property and infrastructure by rebuilding 44 miles of New Jersey coastline and providing the State with the most comprehensive and continuous coastal protection system it has ever had.

The State continues to support local hazard mitigation planning throughout the State, administering FEMA planning grants to fund local HMP updates, and providing resources and guidance to support the development of local plans that better direct risk reduction efforts. The DCA also launched the Post Sandy Planning Assistance Grant Program, which provides communities with planning grants to enable the development of strategic recovery plans, preparation of community design standards specific to flood hazard areas, and analyses of local land use practices to facilitate a smart and efficient rebuilding process at the local level.

The State has further supported programs and projects to increase our understanding of hazard risk, and develop critical information needed to identify feasible and cost-effective mitigation projects. Such projects have included research efforts through Rutgers University, Stevens Institute and Stockton State College.

6.4.2 Progress of Previous Actions

44 CFR 201.4(c)(3)(iii): An identification, evaluation and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions...

Over the course of several months, the MCT, SHMT, and all State agencies and stakeholders with previous mitigation actions were asked to provide a status update using the guidance below. Because of disaster responsibilities described throughout this Plan, only seven previous mitigation actions are considered complete and one action is dropped. These actions are summarized in Table 6-11. However, there are numerous continuing actions that remain a part of the State's 2014 mitigation strategy (refer to Table 6-9).

If an action is considered incomplete or continuous/in-progress, a status update was provided by the responsible agency as summarized in Table 6-12 below. If an action is currently in operation with funded staff, an operation budget, and established goals, it is now noted as a capability or current responsibility and presented in Table 6-13. The number associated with the action as assigned in the 2011 Plan was maintained for continuity. Future plan updates will continue to report of the success of these mitigation action programs and these actions will be moved to the State Capability Assessment section. Explanations of progress descriptions are listed below:

- **No Progress** – If the action is to be carried forward, modify the action to promote implementation; otherwise explain why there was no progress.
- **Incomplete or Ongoing/In-Progress** – Identify if this action is to be carried forward in the 2014 Plan. If so, consider modifying/expanding the action to promote implementation. Identify amount of progress (e.g. % complete) and why.



- Ongoing – Ongoing programs with funded staff, an operating budget, and established goals shall be documented as a State capability.
- Completed – Remove from Updated Strategy.
- Dropped – It is appropriate to decide that a project/initiative is impractical, unfeasible, or undesirable. However, provide an explanation.



Table 6-11. 2011 Mitigation Actions Completed

Responsible Agency	Mitigation Action/Initiative	Status	Funding Used to Complete Action
NJOEM Communications Bureau	2011 Action 124: Expand reverse 911 implementation to include cell phones	This action has been addressed; therefore it will not be carried forward in the 2014 Plan.	Accomplished via internal State resources
NJOEM SHMT	2009 Action 343: Revise the SHMP and post it on the Web so it is more useable to the public and to local governments developing local mitigation plans	This action has been completed.	Accomplished via internal State resources
NJOEM SHMT State Planning Commission NJDCA Office of Smart Growth	2009 Action 491: Ensure coordination with the State Planning Commission	This action has been completed.	Accomplished via internal State resources
NJOEM SHMT	2009 Action 493: Identify and describe existing plans addressing hazard mitigation issues for review and integration into the SHMP	This action has been completed.	FEMA HMA funding
NJOEM	2011 Action 314: Analyze local risks and other information and incorporate into 2014 Plan update	This action has been completed.	FEMA HMA funding
NJOEM NJDCA Office of Smart Growth Local Planning and Emergency Management Agencies	2010 PSA 325: Develop State hazard profiles for manmade and technological hazards	This action has been completed.	FEMA HMA funding
NJDEP NJGWS	2008 Action 451: Develop a GIS database of abandoned mines based on collection of accurate locations using Global Positioning System (GPS)	On September 30, 2013, New Jersey Geological and Water Survey completed a risk analysis of abandoned mines for a FEMA pre-disaster mitigation grant performed under the auspices of NJOEM. About 2700 sites where mining or prospecting occurred were ranked “high” “medium” or “low” for risk of subsidence. Many of these locations were also field inspected and photographed. The data was not available at this time of the 2014 Plan update. The data will be published in 2014 and Appendix Q will be updated accordingly.	FEMA PDM-C 2011 funding

FEMA HMA Federal Emergency Management Agency Hazard Mitigation Assistance
 NA Not applicable
 NJDCA New Jersey Department of Community Affairs
 NJDEP New Jersey Department of Environmental Protection

NJGS New Jersey Geological and Water Survey
 NJOEM New Jersey Office of Emergency Management
 PDM-C Pre-Disaster Mitigation - Competitive
 SHMT State Hazard Mitigation Team



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJ DCA	2008 Action 442 Prioritize earthquake risk by conducting more detailed risk assessments of the State-owned critical facilities	1, 2, 4	Medium	Continuing	To be determined	Earthquakes	Serves as first step in a long-term plan to reduce risks to the most critical State facilities.	Results in protecting both life and property.	Continuing. Funding and personnel for this action have not been identified as this action is classified as medium to low priority
NJDEP - NJGWS	2008 PSA 321 Incorporate existing HAZUS/NYCEM earthquake studies into the SHMP and indicate completion schedule for other counties	3	Highest	Included as a Continuing Mitigation Program As Noted Above	FEMA grant funding needed	All Hazards	HAZUS and NYCEM data will be invaluable in the development of mitigation planning, for both the State and local communities by providing a comprehensive database for mitigation planning.	Assists in developing state and local mitigation plans with current information.	Continuing. Updated data provided for 2014 plan. Completion of other counties dependent on subsequent FEMA funding.
NJDEP - NJGWS	2008 PSA 351 Enhance public education and outreach efforts to increase awareness of earthquake hazards and risk in New Jersey.	3	Low to Medium	Included as a Continuing Mitigation Program As Noted Above	Existing State staff and funds.	All Hazards	Protects life and property.	Advances goals of protecting life and property.	Continuing. This action will assist with public education and outreach upon completion
NJDEP - NJGWS	2008 PSA 441 Overlay an inventory of State-owned critical facilities with the level of seismic hazard at each location, using the USGS national seismic hazard maps and the New Jersey Geological Survey maps of seismic soil classes.	4	Medium	Included as a Continuing Mitigation Program As Noted Above	To be determined	All Hazards	Serves as first step in a long-term plan to reduce risks to the most critical State facilities.	Results in protecting both life and property.	Continuing. Updated data provided for 2014 plan. Completion of other counties dependent on FEMA funding.



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJDEP - NJGWS	2008 Action 443 Complete HAZUS loss estimation runs for the mostly likely damaging earthquakes for New Jersey	4	Medium	Estimated at two years with FEMA grant	Existing NJGS staff and financial resources.	Earthquakes	Part of a larger process to identify most at-risk areas, as basis to determine where State mitigation resources can best be used henceforth.	Results in protecting both life and property.	Continuing. Updated data provided for 2014 plan. Completion of other counties dependent on FEMA funding.
NJ State League of Municipalities (LOM)	2010 PSA 237 Continue NJDEP Green Acres, Blue Acres acquisition of repetitive loss and severe repetitive loss structures.	1	Medium	Included as a Continuing Mitigation Program As Noted Above	New and existing State appropriations	Flood	Requested in local mitigation planning efforts to eliminate repetitive loss structures.	Augments Federal funding to ensure that more structures will no longer be flooded thereby reducing repetitive loss claims.	Continuing. The LOM supports NJOEM and NJDEP acquisition projects at the annual LOM conference
NJ Treasury	2009 Action 215 Survey State agencies for their most critical State-owned facilities, and use as the basis for prioritizing vulnerability assessments and mitigation grant funds.	1	Medium	To be determined. (2013)	Existing NJOEM and State agency staff resources.	All Hazards	Critical first step in identifying appropriate sites and operations for mitigation priorities.	Protects life, property and continuity of operations.	Continuing. Coordinated effort with OMB and is part of this plan update. Refer to new NJOEM/OHSP action in Table 6-14.



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJ Treasury	2009 Action 421 Compile a GIS-based inventory of State-owned critical facilities Statewide	4	High	Two to five years (2013)	Existing staff, possibly consultants depending on funding availability	All Hazards	Developing basic information such as this will allow the State to meet federal requirements for prioritizing mitigation grant funds that will be directed to reducing losses to State-owned and operated facilities. Furthermore, and more importantly, this information will allow the State to make informed decisions regarding the use of federal and State resources to reduce potential damages.	This action is the basic building block of a mitigation strategy. Completing this action is the first step in meeting the goals of protecting lives and property, as related to State facilities	Continuing. Coordinated effort with OMB and is part of the 2014 plan update. Refer to new NJOEM/OHSP action in Table 6-14.
NJ Treasury	2008 Action 211 Generate State-owned critical facilities information and establish GIS-based repository for data on critical State facilities.	1	High	3 years - 2014	Existing State Resources	All Hazards	Establishes comprehensive GIS-based repository for data on critical State-owned facilities.	Data base will allow identification of critical state facilities so that they may be targeted for future mitigation projects.	Continuing. This data repository is continuing to be updated and has been part of the 2014 plan update. Refer to new NJOEM/OHSP action in Table 6-14.
NJ Treasury	2009 Action 344 Develop and maintain local government mitigation planning assistance/coordination web page.	2	Highest	6 months (2011)	Existing State resources	All Hazards	Provide up to date reference for the development and updating of local hazard mitigation plans.	This local information will be utilized in the updating of the State Hazard Mitigation Plan.	No progress due to disaster responsibilities.



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJDCA, NJDEP	2008 Action 141 Integrate NFIP standards and Firewise into the uniform construction codes utilized by the State.	1, 2	High	2 years (2013)	Existing State funds	Flood	Incorporate NFIP requirements into the New Jersey Uniform Construction Code to reduce flood losses.	Reduction of flood losses will reduce flood insurance claims.	Continuing. This action continues to be coordinated among the two state agencies. Disaster responsibilities have caused delays
NJDEP	2011 Action 241 Encourage regional authorities, with established land use regulatory authority to participate in the NFIP CRS program	2	Medium	3 years (2014)	Existing NJDEP resources The Meadowland Commissions can be used as a model	Flood	Greater CRS participation will promote general flood hazard awareness, increase flood insurance coverage and reduce flood policy costs.	Increase flood hazard awareness and provide greater flood insurance coverage at lower costs.	Continuing. NJDEP continues to promote NFIP and CRS participation throughout the State
NJDEP	2011 Action 240 Encourage greater municipal CRS participation through county and municipal educational programs.	2	Medium	3 years (2014)	Existing NJDEP resources	Flood	Greater CRS participation will promote general flood hazard awareness, increase flood insurance coverage and reduce flood policy costs and decreases flood losses	Increase the awareness of flood hazards.	Continuing. As an example, NJDEP is currently working with Monmouth County GIS on a program that can assist municipalities receive additional CRS points.
NJDEP	Elevation Program – This program continues to provide grants to help homeowners elevate their homes to provide increased flood protection.	2, 5	High	5 years	FEMA Grant Funding; CDBG-DR	Flood	Enhance home protection during flood events	Reduce damage to homes	Continuing.



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJDEP	Buyout Program - Approximately 1,000 homes impacted by Superstorm Sandy will be targeted by the buyout program, in addition to another 300 repetitively flood-damaged homes located in the Passaic River Basin.	1, 2	High	Continuing	FEMA Grant Funding; CDBG-DR; and other State funds	Flood	Provide funding for the acquisition of homes in Sandy-impacted areas subject to repetitive flooding.	Properties purchased through the program will be removed and the remaining land reverted back to its natural state resulting in the mitigation of flooding for neighboring communities.	Continuing. Using federal disaster relief resources, NJDEP began implementing a buyout program to acquire properties from willing sellers in repetitive loss areas.
NJDEP Forest Fire Service	2008 Action 471 Develop and implement a State database/GIS to track and archive past wildfire occurrences.	4	Medium	Within 2 years (2013)	PDM Grant	Wildfire	Map of all areas of the State with the ranking of the threat from wildland fuels will assist in local and regional planning	Provides basis for Pinelands Commission and other defensible space regulations and enforcement.	Continuing. This action is currently being worked on with NJ forestry services staff, forestry services GIS personnel and New Jersey forest fire service staff to develop these maps. Additionally the US Forest Service has provided some data to develop hazardous fuels mapping.
NJOEM	2011 Action 133 Encourage resolution of flooding issues on NFIP identified Repetitive and Severe Repetitive properties	1	High	Continuing	DEP Green Acres funding, FEMA Grant Funds, Local dedicated Open Space funds, Private contributions	Flood	Increases the level of protection from flooding throughout the state to a large segment of vulnerable population.	Advances the goal of several mitigation programs.	Continuing. RL and SRL properties have been, and will continue to be targeted for elevation or acquisition with HMGP.



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	2009 Action 212 Prioritize structural and nonstructural retrofits for critical State-owned facilities based on their vulnerability to natural hazards.	2	High	3 years - 2014	Existing State Resources and possible mitigation grant funds	All Hazards	Prioritizing will address the most vulnerable structures first.	Retrofitting facilities based on their vulnerability will preserve important state buildings, as well as protect their records, systems and occupants from hazard events.	Continuing. NJOEM is coordinating with Treasury and OHSP. Refer to new NJOEM/OHSP action in Table 6-14.
NJOEM	2008 Action 221 Inventory non-state owned critical assets that are vulnerable to natural hazards.	2	High	Continuing	Existing resources	All Hazards	Establishes comprehensive GIS-based repository for data on critical non-State owned facilities.	Database will allow identification of non-State owned critical facilities so that they may be targeted for future mitigation projects.	Continuing. NJOEM is coordinating with Treasury and OHSP. Refer to new NJOEM/OHSP action in Table 6-14.
NJOEM	2008 Action 253 Initiate mitigation projects to reduce risks to State-owned critical facilities located in V and VE zones	2	Medium to High	To be determined based on funding.	FEMA grant programs, with State	All Hazards	Protects critical facilities.	Contributes to goals of protecting property and life.	Continuing. Critical facilities state wide have been targeted for mitigation through the HMGP Energy Resiliency Program and the HMGP Local Resiliency Projects under DR-4086
NJOEM	2008 Action 344 Develop and maintain local government mitigation planning assistance/coordination web page.	3	Highest	6 months (2011)	Existing State resources	All Hazards	Provide up to date reference for the development and updating of local hazard mitigation plans.	This local information will be utilized in the updating of the State Hazard Mitigation Plan.	No progress due to disaster responsibilities/ local planning technical assistance needs.



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	2011 Action 346 Encourage greater active county involvement in plan updates and local project development through establishing “Plan Update” training courses to assist counties in fulfilling the plan maintenance sections of their plans.	3	Medium	3 years (2014)	Existing NJOEM Resources	All Hazards	Brings about a greater degree of coordination between state, county and local emergency managers in plan maintenance.	Advances the goal full awareness of all hazards on all levels.	No progress due to disaster responsibilities
NJOEM	2008 Action 361 Encourage the NJ League of Municipalities to become more involved in mitigation activities.	3	Medium	Continuing	Existing staff	All Hazards	Helps to spread concepts of mitigation to new areas.	Advances all goals in the plan by increasing preparedness and knowledge of citizens, and law and policymakers.	Continuing. Mitigation elements continue to be part of annual League Conferences
NJOEM	2008 Action 411 Continuingly update the State Hazard Mitigation Plan to ensure that it includes the most current technical information, serves as a reference and guidance document for local and regional planners, and reflects current State policies, practices and priorities.	4	High	Continuing	Existing staff, support from MCT and SHMT. Potential for additional funding through FEMA grant programs.	All Hazards	Federal requirement. In order to maximize the utility of the plan, it must be constantly updated to include most recent information.	Basis for most of the State’s decisions about mitigation actions and strategies.	Continuing. 2014 plan update includes an updated and robust plan maintenance section that identifies responsible parties



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	2008 Action 421 Compile a GIS-based inventory of State-owned critical facilities Statewide	4	High	Two to five years (2016)	Existing staff, possibly consultants depending on funding availability	All Hazards	Developing basic information such as this will allow the State to meet federal requirements for prioritizing mitigation grant funds that will be directed to reducing losses to State-owned and operated facilities. Furthermore, and more importantly, this information will allow the State to make informed decisions regarding the use of federal and State resources to reduce potential damages.	This action is the basic building block of a mitigation strategy. Completing this action is the first step in meeting the goals of protecting lives and property, as related to State facilities	Continuing. 2014 plan update will be a resource for this data. Refer to new NJOEM/OHSP action in Table 6-14.
NJOEM	2008 Action 461 Conduct a survey of wind vulnerabilities, based on criteria such as age of the facility, value of operations, proximity to the coast, etc.	4	Medium	To be determined	State funds, dependent on budget priorities.	All Hazards	Although wind is not as significant a risk to the State as some other hazards, there are likely some State facilities that are quite vulnerable to wind hazards, and where these vulnerabilities may be relatively inexpensive to mitigate.	Basis for prioritizing actions to mitigate risk.	No progress due to disaster responsibilities
NJOEM	2008 Action 491 Ensure coordination with the State Planning Commission	4	High	Continuing	Existing State Resources	All Hazards	To ensure that growth plans do not conflict with hazard mitigation and response planning.	To enhance the State's coordination abilities.	Continuing. Close coordination exists with NJ Office of Planning Advocacy



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	2008 Action 493 Identify and describe existing plans addressing hazard mitigation issues for review and integration into the SHMP.	4	Medium	Continuing	Existing State resources	All Hazards	Develop plans for their effective use and integration with other agencies' for use of existing resources to reduce losses.	Enhances local capabilities to utilize public and private resources.	Continuing. This action will continue to be part of update process
NJOEM	2008 Action 511 Seek funding for additional staff and resources	5	High	Continuing	To be determined, probably State of New Jersey and FEMA.	All Hazards	Federal requirement. In order to maximize the utility of the plan, it must be constantly updated to include most recent information.	Basis for most of the State's decisions about mitigation actions and strategies.	Continuing. Three new staff have been added to Mitigation Unit
NJOEM	2008 Action 512 Provide ongoing staff and resources to keep the State plan a living document.	5	High	Continuing	State, NJOEM. Sandy funds	All Hazards	Ensures that the plan is a current and technically accurate document.	Ensures that all aspects of the HMP are current, and enhances resources available to local and regional planners.	Continuing. Three new staff have been added to Mitigation Unit
NJOEM	2008 Action 521 Ensures that mitigation planning continues to evolve in the State	5	Medium	Continuing	NJOEM, FEMA, NJ counties and local jurisdictions.	All Hazards	Ensures that mitigation planning continues to evolve in the State, and that efforts of State, federal government and local jurisdictions are aligned.	Ensures a regional and statewide mitigation planning effort. Planning participation at the local level is expanding beyond municipalities to other institutions and independent subdivisions of State government.	Continuing. All Counties either have a plan, are developing a plan, or are involved with a plan update. Efforts are ongoing to gain 100% local plan coverage



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	2008 Action 531 Increases technical quality of HMP and abilities of State	5	Medium	Continuing	Various, including NJOEM, FEMA, local and national partners.	All Hazards	Increases technical quality of HMP and abilities of State, local and regional planners.	Ensures that technical aspects of the plan and mitigation activities are based on best available technology and data.	Continuing. This action will be addressed during the annual and three year update of the SHMP
NJOEM	2011 Action 132 Encouraging College/university participation in the mitigation planning process.	3	Medium	Continuing	Existing NJOEM Resources	All Hazards	Increase level of protection to eligible, but not covered jurisdiction, from all natural hazards and a greater awareness throughout the state to a large segment of the vulnerable population.	Advances the goal of achieving 100% mitigation planning coverage	Continuing. Coordination with Rutgers and Stockton is ongoing and will continue
NJOEM	2011 Action 224 Establish an annual "mitigation" meeting to which a target group on a specific subject will be invited on a 3 year rotating schedule	2	Medium	3 years (2014)	Existing NJOEM Resources	All Hazards	Increase level of protection to eligible, but not covered jurisdiction, from all natural hazards and a greater awareness throughout the state to a large segment of the vulnerable population.	Advances the goal of achieving 100% mitigation planning coverage	No progress due to disaster responsibilities



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	2008 Action 251 Use HAZUS to identify local or regional police, fire, hospital and emergency operations centers that are in FEMA-designated V and VE flood zones.	2	Medium to High	One year (2012)	Existing NJOEM and local/regional resources	All Hazards	First step in initiating mitigation activities to protect critical facilities.	Protects property, and because the facilities in question are critical in nature, by extension these activities also contribute to the goal of protecting life, as well as maintaining the effective operation of government operations that may be essential in the post-event environment.	2014 SHMP Update conducted risk assessment on identified critical facilities
NJOEM	2008 Action 252 Undertake detailed vulnerability assessments and develop mitigation options for State-owned critical facilities in V and VE zones.	2	Medium to High	To be determined based on funding.	To be determined, probably NJOEM and regional or local entities.	All Hazards	Step in process of securing grant funds to mitigate risks to these sites.	Contributes to goals of protecting property and life.	2014 SHMP Update included detailed vulnerability assessment on critical facilities in V zones.
NJOEM	2011 Action 362 Encourage plan participation by non-participating local governments	3	High	Continuing	Existing NJOEM resources	All Hazards	Increase level of protection from all natural hazards and a greater awareness throughout the state.	Advances the goal of achieving 100% mitigation planning coverage	Continuing. Outreach and encouragement continues



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	2011 Action 412 Make the AHP web site more user friendly and maintain, as part of the web site, all handouts and information developed for public distribution with current information	4	High	2014	Existing NJOEM resources and NJSP Public Information Office.	All Hazards	Increased access to the NJ AHP will help spread the concept of hazard mitigation.	Advances all of the goals of the plan by increasing preparedness and knowledge of municipal and county officials, citizens and law and policymakers.	No progress due to disaster responsibilities
NJOEM	Conduct yearly workshops related to FEMA hazard mitigation grant programs (This action is part of the Repetitive Loss Strategy – Section 8)	All	High	Continuing	Existing state assets and federal grants	All	Making local officials aware of FMA increases participation.	FMA contributes to the mitigations strategy to reduce future flood losses.	Continuing. In conjunction with FEMA, NJOEM presented post-Sandy mitigation workshops in all 21 NJ counties to advise counties of HMGP available funding. The workshops were subsequently supported by technical assistance upon request.



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	Promote acquisition and elevation of repetitive loss structures through community partnerships and outreach. (This action is part of the Repetitive Loss Strategy – Section 8)	1, 2, 4, 5	High	Continuing	Federal grants and existing state resources	Flood	Eliminating repetitive loss structures. Contacting local community partners including but not limited to emergency management directors, floodplain managers, local officials, floodplain administrators regularly to provide updated technical information and advice of opportunities/funding to acquire or elevate properties.	Structures will no longer be flooded thereby reducing RL claims. Contact local community partners including but not limited to emergency management directors, floodplain managers, local officials, floodplain administrators regularly to provide updated technical information and advice of opportunities/funding to acquire or elevate properties.	To date 658 SRL properties have been elevated or acquired and demolished. This is also a high priority in the HMGP Administrative Plan (post-Superstorm Sandy). In conjunction with FEMA, NJOEM presented post-Sandy mitigation workshops in all 21 NJ counties to advise counties of HMGP available funding. The workshops were subsequently supported by technical assistance upon request.
NJOEM	Provide updated SRL and RL lists to communities in advance of grant application windows. Included FEMA-calculated avoided damages for SRL properties and any state-calculated avoided damages for RL properties (This action is part of the Repetitive Loss Strategy – Section 8)	1, 2, 4, 5	High	Continuing	Existing state resources	Flood	Identifying candidates with the strongest potential to meet benefit cost requirements allows communities to focus mitigation alternatives and applications on SRL and RL properties	Retrofitting, elevating or removing RL properties from known hazard areas protect property and lives as well as preserve personal, state, and federal financial resources	NJOEM provides RL/SRL information upon request



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	Local Projects Program: This program continues to enable county and local governments across all 21 counties to pursue regional and local resiliency projects. These funds can be used to advance drainage, flood control, energy resiliency and other hazard mitigation projects.	All	High	5 years	FEMA Grant Funding	All Hazards	Support local government entities in mitigation actions	Funds local mitigation projects	Continuing. Refer to Table 6-6 for a list of mitigation projects that local jurisdictions have been successful in obtaining funding.
NJOEM	Planning Grant Program – This program continues to provide eligible counties with grants to develop hazard mitigation plans.	3, 4, 5	High	5 years	FEMA Grant Funding	All Hazards	Provides eligible counties with grants to develop multi-jurisdictional hazard mitigation plans	Builds local-level hazard mitigation capability.	Continuing.
NJOEM / Treasury	2008 Action 215 Survey State agencies for their most critical State-owned facilities, and use as the basis for prioritizing vulnerability assessments and mitigation grant funds.	2	Medium	To be determined. (2014)	Existing NJOEM and State agency staff resources.	All Hazards	Critical first step in identifying appropriate sites and operations for mitigation priorities.	Protects life, property and continuity of operations.	No progress due to disaster responsibilities of both state agencies. Refer to new NJOEM/OHSP action in Table 6-14.



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM, NJDEP, New Jersey Treasury	Inventory flood damage structures (This action is part of the Repetitive Loss Strategy – Section 8)	2	High	Continuing	Existing state assets and federal grants	Flood	Identifying repetitive loss areas and properties helps communities develop a strategy to reduce future hazard losses	Retrofitting, elevating or removing RL properties from known hazard areas protect property and lives as well as preserve personal, state, and federal financial resources	As of November 2013, over 10,000 substantially damaged (SD) structures have been inventoried as a result of post Sandy initiative funded by the NJDEP. The NJDEP is continuing to collect and inventory SD letters.
NJOEM Public Information Office	2011 Action 522 Publicize mitigation success stories by requiring project applicants to report on how the mitigation action affected the hazard issue.	5	Medium	Continuing	Existing NJOEM Resources and NJOEM Public Information Office	All Hazards	Increase level of awareness of natural hazards and a greater awareness of the relation between planning and project that relieve or prevent hazard results.	Advances the goal of achieving 100% mitigation planning coverage and better mitigation projects	Continuing. Minimal progress due to disaster responsibilities and limited staffing
NJOEM and Local/regional authorities	2009 Action 252 Undertake detailed vulnerability assessments and develop mitigation options for State-owned critical facilities in V and VE zones.	2	Medium to High	To be determined based on funding.	To be determined, probably NJOEM and regional or local entities.	Flood	Step in process of securing grant funds to mitigate risks to these sites.	Contributes to goals of protecting property and life.	Continuing. This action will continue to be addressed during in-house annual mitigation plan updates and during three year FEMA required update
NJOEM and Local/regional authorities	2009 Action 253 Initiate mitigation projects to reduce risks to State-owned critical facilities located in V and VE zones	2	Medium to High	To be determined based on funding.	FEMA grant programs, with State	Flood	Protects critical facilities.	Contributes to goals of protecting property and life.	Continuing. This action will continue to be addressed during in-house annual mitigation plan updates and during three year FEMA required update



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM State agencies, Local/regional authorities - Emergency Management Agencies	2010 Action 221 Inventory non-state owned critical assets that are vulnerable to natural hazards.	2	High	Continuing	Existing resources	All Natural Hazards	Establishes comprehensive GIS- based repository for data on critical non- State owned facilities.	Database will allow identification of non- State owned critical facilities so that they may be targeted for future mitigation projects.	Continuing. This action will continue to be addressed during in-house annual mitigation plan updates and during three year FEMA required update
NJOEM, NJDEP, Local Governments	Encourage resolution of flooding issues on NFIP identified Repetitive and Severe Repetitive properties	2	High	Continuing	DEP Green Acres funding, FEMA Grant Funds, Local dedicated Open Space funds, Private contributions	Flood	Increases the level of protection from flooding throughout the state to a large segment of vulnerable population.	Advances the goal of several mitigation programs.	Continuing. This action will continue to be addressed during in-house annual mitigation plan updates and during three year FEMA required update
NJOEM	2008 Action 344 2010 Action 344 Develop and maintain local government mitigation planning assistance/coordination web page.	3	Highest	6 months (2011)	Existing State resources	All Hazards	Provide up to date reference for the development and updating of local hazard mitigation plans.	This local information will be utilized in the updating of the State Hazard Mitigation Plan.	No progress due to disaster responsibilities
NJOEM *	2008 Action 154 Ensure Incident Command System use, qualifications, and standards during all incident response and event planning.	1	Medium	Continuing	Existing State resources	All Hazards	DHS requirement	Protects life, property and continuity of operations.	Continuing. All Emergency Support Function personnel are trained and provided updates in ICS to ensure effective disaster response and planning



Table 6-12. Continuing/In-Progress Mitigation Actions Carried Forward from the 2011 Plan

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOIT/GIS and OMB	2008 Action 211 2009 Action 211 2010 Action 211 Generate State-owned critical facilities information and establish GIS-based repository for data on critical State facilities.	2	High	3 years (2014)	Existing State Resources	All Hazards	Establishes comprehensive GIS-based repository for data on critical State facilities.	Data base will allow identification of critical state facilities so that they may be targeted for future mitigation projects.	Continuing. The 2014 SHMP has compiled an inventory which will continue to be updated and enhanced. Refer to new NJOEM/OHSP action in Table 6-14.
State Agencies	2008 Action 241: Undertake cost-effective wind retrofits and upgrades of the most critical state facilities	2	Medium	Continuing – based upon funding	Federal, State or local resources	All Hazards	Protects key State resources. Part of possible eventual enhanced State plan status.	Protects lives, property and essential State functions.	Wind projects are currently seeking funding.
SHMT *	2008 Action 122 Encourage adoption of regulations that include exemptions to life safety/property protection mitigation efforts	1	Medium	Continuing	To be determined; multi-agency initiative	All Hazards	Prescribed burning and mechanical fuel reduction efforts are hindered when not considered during development of environmental laws and regulations	Results in both protecting life and property	Continuing. All state agencies support mitigation initiatives. This initiative will be consistently discussed at SHMT meetings after 2014 plan approval and post disasters

All actions were from the 2011 State of New Jersey Hazard Mitigation Plan.

* In the 2011 Plan, the responsible agency for these actions was listed as 'Various'. To ensure that progress can be monitored on this action, a lead responsible agency was identified in the 2014 Plan update.

CDBG-DR Community Development Block Grant Disaster Recovery
DHS Department of Homeland Security
DR Disaster Declaration (FEMA)
FEMA Federal Emergency Management Agency
FMA Flood Mitigation Assistance
GIS Geographic Information Systems
GPS Global Positioning System

HAZUS Hazards U.S.
HMP Hazard Mitigation Plan
HMGP Hazard Mitigation Grant Program
MCT Mitigation Core Team
NFIP National Flood Insurance Program
NJ New Jersey
NJDCA Department of Community Affairs



<i>NJDEP</i>	<i>New Jersey Department of Environmental Protection</i>
<i>NJGWS</i>	<i>New Jersey Geologic and Water Survey</i>
<i>NJLOM</i>	<i>New Jersey League of Municipalities</i>
<i>NJOEM</i>	<i>New Jersey Office of Emergency Management</i>
<i>NJOIT</i>	<i>New Jersey Office of Information Technology</i>
<i>NJOMB</i>	<i>New Jersey Office of Management and Budget</i>
<i>NJSP</i>	<i>New Jersey State Police</i>
<i>NYCEM</i>	<i>New York City Area Consortium for Earthquake Loss Mitigation</i>
<i>OHSP</i>	<i>Office of Homeland Security and Preparedness</i>
<i>PSA</i>	<i>Prior Strategy Action</i>
<i>RL</i>	<i>Repetitive Loss</i>
<i>SHMT</i>	<i>State Hazard Mitigation Team</i>
<i>SHMP</i>	<i>State Hazard Mitigation Plan</i>
<i>SRL</i>	<i>Severe Repetitive Loss</i>



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJ DCA*	2008 PSA 239 Ensure enforcement of the seismic design provisions in the International Building Code for all new buildings and infrastructure in New Jersey.	2	Medium	Continuing Capability / Responsibility	Existing local and State resources	All Hazards	Long-term continued enforcement is best form of mitigation for most hazards.	Best possible long-term mitigation against damages from earthquakes, especially for new construction	Continuing Capability/ Responsibility
NJ DCA	2009 PSA 161 Implement seismic retrofits critical facilities, which are especially vulnerable seismically and located in high hazard areas.	1	Medium	Continuing Capability / Responsibility	FEMA grant funds, grants from other federal or State agencies TBD.	Earthquake	Potential for deaths and casualties in certain combinations of building types and occupancies means that some critical facilities should be protected from seismic hazards.	Protects life and property. Will help State maintain operations in the event of an earthquake.	Continuing Capability/ Responsibility
NJ Treasury	2009 PSA 214 Provide training seminars in identifying potential hazards to State bureaus responsible for rental/leasing of properties for State offices.	2	Medium	Continuing Capability / Responsibility	Existing resources	All Hazards	Training will augment existing initiatives of Treasury and the State's insurance carriers by expanding the number of hazards addressed and will use all existing hazard profiling information.	Identification of potential hazards will identify vulnerabilities and avoid losses to State facilities through mitigation or relocation. Securing facility contents will protect them from damage and also minimize flood insurance claims.	Continuing Capability/ Responsibility
NJ Treasury	2009 PSA 213 Expand State facilities risk management program.	2	High	Continuing Capability / Responsibility	Existing resources	Flood	Maintain flood protection and fire protection	Increases safety of personnel and reduces losses due to fire/flood.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJ Treasury	2010 PSA 231 Inventory damaged structures.	2	High	Continuing Capability / Responsibility	Existing State Assets and Federal grants	All Hazards	Identifying repetitive loss areas and properties helps communities develop a strategy to reduce future hazard losses.	Retrofitting, elevating or removing repetitive loss properties from known hazard areas protect property and lives as well as preserve personal, and federal financial resources.	Continuing Capability/ Responsibility
NJDCA	2010 PSA 131 Encourage participation in existing programs – FMA, PDM, HMGP.	1	High	Continuing Capability / Responsibility	Existing local, State and Federal grant funds.	All Hazards	Significant number of households are in floodplains and are potentially at risk to hazards and repetitive losses. Opportunities exist to coordinate with “smart growth” and “safe growth” planning initiatives.	Increasing municipal involvement in and public support for improving the structural integrity of vulnerable homes will improve the safety of households, which would otherwise be at risk.	Continuing Capability/ Responsibility
NJDCA Office of Smart Growth	2009 PSA 325 Develop state hazard profiles for manmade and technological hazards.	3	High	Continuing Capability / Responsibility	Mitigation grants	Cyber Attack, Terrorism	Existing profiles primarily discuss state and local vulnerability to natural hazards.	Improving knowledge of manmade hazards and technological hazard events will improve mitigation and other planning designs to reduce the impact of hazard events on local and state economies.	Continuing Capability/ Responsibility
NJDCA Office of Smart Growth	2011 Action 491 Ensure coordination with the State Planning Commission	4	High	Continuing Capability / Responsibility	Existing State Resources	All Hazards	To ensure that growth plans do not conflict with hazard mitigation and response planning.	To enhance the State’s coordination abilities.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJDEP	2010 – PSA 121 Encourage enforcement of Flood Plain Management as it relates to new and existing construction.	1	High	Continuing Capability / Responsibility	Existing State Resources and Federal grant funds (FEMA CAP-SSSE)	Flood	To guide communities in a more effective control and use of floodplains.	Improve disaster resistance of structures within the floodplain. Coordinate with the NFIP participating communities through the Community Assistance Program to ensure that they are adopting, properly using and enforcing the Local Flood Damage Prevention ordinances.	Continuing Capability/ Responsibility
NJDEP	2009 PSA 231 Inventory damaged structures.	2	High	Continuing Capability / Responsibility	Existing State Assets and Federal grants	All Hazards	Identifying repetitive loss areas and properties helps communities develop a strategy to reduce future hazard losses.	Retrofitting, elevating or removing repetitive loss properties from known hazard areas protect property and lives as well as preserve personal, state and federal financial resources.	Continuing Capability/ Responsibility
NJDEP	2008 PSA 237 Continue NJDEP Green Acres, Blue Acres acquisition of repetitive loss and severe repetitive loss structures.	2	Medium	Continuing Capability / Responsibility	New and existing State appropriations	Flood	Requested in local mitigation planning efforts to eliminate repetitive loss structures.	Augments Federal funding to ensure that more structures will no longer be flooded thereby reducing repetitive loss claims.	Continuing Capability/ Responsibility
NJDEP	2008 PSA 236 Regulate development to reduce flood losses in vulnerable fluvial and coastal areas.	2	High	Continuing Capability / Responsibility	Existing resources	Flood	Necessary to reduce flood insurance losses in flood prone areas.	Promulgates regulations governing development in flood hazard areas, which reduce flood losses and ensures a safer community.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJDEP Bureau of Dam Safety and Flood Control	2008 PSA 238 Continue State funding for federal flood control projects through annual state appropriations under the HR-6 Flood Control project budget.	2	High	Continuing Capability / Responsibility	Existing State resources	Flood	Implemented recommendations and methods would reduce flooding and protect vulnerable public and private properties, infrastructure, utilities and municipal services	Partnerships with the U.S. Army Corps of Engineers and local governments allow the State to leverage our funding to implement flood mitigation projects that provide larger scale protection.	Continuing Capability/ Responsibility
NJDEP Bureau of Coastal Engineering	2008 PSA 223 Continue the non-lapsing Shore Protection Fund for shore protection projects, stabilization, restoration or maintenance of the shore, including monitoring studies and land acquisition.	2	High	Continuing Capability / Responsibility	Existing resources.	Flood, Coastal Erosion, Hurricanes and Tropical Storms	Implemented recommendations and methods would reduce flooding from storm surge and protect vulnerable evacuation routes on barrier islands.	Partnerships with the U.S. Army Corps of Engineers and local governments allow the State to leverage our funding to implement mitigation projects with larger scale protection. The fund supports coastal engineering research, the Beach Monitoring Network and dune-system assessments.	Continuing Capability/ Responsibility
NJDEP Forest Fire Service	2008 PSA 262 Encourage community acceptance and inclusion of Firewise concepts in municipal and regional planning	2	Medium	Continuing Capability / Responsibility	Fosters defensible space and community development standards to improve survivability of residences during wildfire incidents	Wildfire	Allows continuity of mitigation efforts between communities and other open lands.	Improving the health of the forests will make less fuel available for wildland fire and protect forest resources.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJDEP Forest Fire Service	2008 PSA 263 Develop and implement effective silviculture strategies that improve the health of forests and reduce the amount of fuels available for wildland fires from dead and dying trees.	2	Medium	Continuing Capability / Responsibility	Existing resources and National Fire Plan grants	Wildfire	A portion of the state's forests has trees killed or defoliated by forest insects or disease.	Improving the health of the forests will make less fuel available for wildland fire and protect forest resources.	Continuing Capability/ Responsibility
NJDEP Forest Fire Service	2008 PSA 264 Limit the number of wildfires to fewer than 2,000 annually and the acreage burned to less than 1/2 of 1% of the state forest.	2	Medium	Continuing Capability / Responsibility	Existing resources	Wildfire	Minimizes wildfire ignitions and limits acreages burned by breaking up large areas of hazardous fuels.	Provides access for suppression and enforcement as well as contingency lines for prescribed burning and wildfire control. Improve public acceptance of efforts	Continuing Capability/ Responsibility
NJDEP Forest Fire Service	2009 PSA 345 Ensure that each municipality and county develops a wildfire preparedness plan for incorporation into their local and county emergency management plans.	3	Medium	Continuing Capability / Responsibility	FEMA Fire Management Assistance Grant Program; National Fire Plan grants and NJDEP Community Wildfire Hazard Mitigation Grants, others.	Wildfire	Provides resources for preparing mitigation plans and implementation of measures to mitigate wildfire hazards	Helps to address goals of protecting life and property.	Continuing Capability/ Responsibility
NJDEP FS	2008 PSA 123 Provide a legislative process to conduct wildland fuel reduction efforts on private properties.	1	Medium	Continuing Capability / Responsibility	NJFS	Wildfire	Incomplete cooperation on various land ownerships disrupts linear continuity of mitigation efforts	Protects life and property.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJDEP FS	2008 PSA 261 Continue mechanical thinning and prescribed fire use to reduce hazardous wildland fuel accumulations Statewide, particularly in high-risk areas.	2	High	Continuing Capability / Responsibility	NJFS, federal programs	Wildfire	Historically vulnerable areas require continual mitigation efforts to manage risk. Many vulnerable areas are subject to increasing development pressures, meaning that risk is gradually increasing, although the probability of fire may remain stable because of mitigation efforts.	Improving the health of the forests will make less fuel available for wildland fire and protect forest resources. Protects property and life.	Continuing Capability/ Responsibility
NJDEP FS	2009 PSA 311 Educate the public through NJOEM and NJFS outreach programs and hazard mitigation workshops.	3	High	Continuing Capability / Responsibility	Existing State resources	Wildfire	To increase participation in hazard mitigation programs for the prevention of potential loss of life and damage to structures.	Encourages the development of Pre Disaster Mitigation plans and participation in mitigation grant programs.	Continuing Capability/ Responsibility
NJDEP FS	2009 PSA 312 Participate in the Emergency Preparedness Conference with workshops.	3	High	Continuing Capability / Responsibility	Existing State resources	Wildfire	The Emergency Preparedness Conference is an important venue to promote and increase participation in hazard mitigation programs and reaches a wide variety of people and interests.	Encourages the development of Pre Disaster Mitigation plans and participation in mitigation grant programs.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJDEP FS	2010 PSA 323 Develop a hazard event GIS database to help State and local emergency managers with hazard mitigation and other planning initiatives.	3	High	Continuing Capability / Responsibility	Existing resources	Wildfire	The current NJOEM GIS database to capture and organize the volume of information generated by research and actual disaster events needs to be expanded.	Improving knowledge of hazards and hazard events will improve mitigation and other planning designs to reduce the impact of hazard events on local and state economies.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 213 Expand State facilities risk management program.	2	High	Continuing Capability / Responsibility	Existing resources	Flood	Maintain flood protection and fire protection	Increases safety of personnel and reduces losses due to fire/flood.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 222 Encourage training of owners and operators of non-state owned critical facilities for hazard mitigation.	2	High	Continuing Capability / Responsibility	Existing resources	All Hazards	Targeted training will augment existing initiatives of NJOEM and insurance carriers.	Targeted training efforts based on identification of potential hazards will reduce vulnerabilities and losses to critical facilities through mitigation or relocation. Training to secure contents of critical facilities will protect assets from damage and minimize flood insurance claims.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 231 Inventory damaged structures.	2	High	Continuing Capability / Responsibility	Existing State Assets and Federal grants	All Hazards	Identifying repetitive loss areas and properties helps communities develop a strategy to reduce future hazard losses.	Retrofitting, elevating or removing repetitive loss properties from known hazard areas protect property and lives as well as preserve personal, state and federal financial resources.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	2008 PSA 232 Develop and implement a detailed severe repetitive loss mitigation strategy	2	High	Continuing Capability / Responsibility	Existing State resources, in context of State Mitigation Plan update (which used FEMA grant funds)	Flood	First step in the State implementing a clear, long-term program of mitigating properties that constitute the most significant losses to the National Flood Insurance Program.	Protects property. See Appendix F of 2008 version of State plan – Severe Repetitive Loss Mitigation Strategy.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 235 Conduct community outreach, workshops and training to increase NFIP participation.	2	High	Continuing Capability / Responsibility	Existing State Resources	Flood	Encourages participation in the program so that losses will be covered and allows eligibility in the FMA program.	Allows for people to receive flood insurance claims and maintains eligibility in the FMA program of which flood insurance is a requirement.	Continuing Capability/ Responsibility
NJOEM	2009 PSA 237 Continue NJDEP Green Acres, Blue Acres acquisition of repetitive loss and severe repetitive loss structures.	2	Medium	Continuing Capability / Responsibility	New and existing State appropriations	Flood	Requested in local mitigation planning efforts to eliminate repetitive loss structures.	Augments Federal funding to ensure that more structures will no longer be flooded thereby reducing repetitive loss claims.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 271 Update and maintain continuity of government to enable the State government to provide critical services during an interruption of business.	2	High	Continuing Capability / Responsibility	Existing resources	All Hazards	Critical services are still necessary during an interruption of business.	The existence and exercise of these plans will assure that State Government services will continue to be provided regardless of the hazards faced.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	2008 PSA 311 Educate the public through NJOEM and NJFS outreach programs and hazard mitigation workshops.	3	High	Continuing Capability / Responsibility	Existing State resources	All Hazards	To increase participation in hazard mitigation programs for the prevention of potential loss of life and damage to structures.	Encourages the development of Pre Disaster Mitigation plans and participation in mitigation grant programs.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 312 Participate in the Emergency Preparedness Conference with workshops.	3	High	Continuing Capability / Responsibility	Existing State resources	All Hazards	The Emergency Preparedness Conference is an important venue to promote and increase participation in hazard mitigation programs and reaches a wide variety of people and interests.	Encourages the development of Pre Disaster Mitigation plans and participation in mitigation grant programs.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 313 Promote continuing education of state and local officials through Rutgers programs.	3	Medium	Continuing Capability / Responsibility	Existing State resources	All Hazards	To make local officials and emergency management coordinators aware of possible hazards and actions to reduce hazards and vulnerabilities in their community.	Increases protection to property and life in the state.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 322 Incorporate additional profiling and vulnerability information recommended by FEMA into the SHMP.	3	High	Continuing Capability / Responsibility	Existing State resources	All Hazards	To increase statewide vulnerability and hazard trends.	Decreases losses through identification of hazard prone areas. Increases protection of vulnerable state activities.	Continuing Capability/ Responsibility. Vulnerability assessments have been enhanced for the 2014 Plan update.



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	2008 PSA 323 Develop a hazard event GIS database to help State and local emergency managers with hazard mitigation and other planning initiatives.	3	High	Continuing Capability / Responsibility	Existing resources	All Hazards	The current NJOEM GIS database to capture and organize the volume of information generated by research and actual disaster events needs to be expanded.	Improving knowledge of hazards and hazard events will improve mitigation and other planning designs to reduce the impact of hazard events on local and state economies.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 324 Expand and enhance GIS/HAZUS hazard mitigation databases and use for analysis and mapping in the SHMP.	3	High	Continuing Capability / Responsibility	Existing resources and mitigation grants	Flood, Coastal Erosion, Hurricanes and Tropical Storms	Provide a data base for the identification of hazardous areas and provide loss estimations for hurricanes and flood winds	Provide rationalization for future land use planning.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 325 Develop state hazard profiles for manmade and technological hazards.	3	High	Continuing Capability / Responsibility	Mitigation grants	All Hazards	Existing profiles primarily discuss state and local vulnerability to natural hazards.	Improving knowledge of manmade hazards and technological hazard events will improve mitigation and other planning designs to reduce the impact of hazard events on local and state economies.	Continuing Capability/ Responsibility. Human-caused hazard profiles updated in the 2014 Plan update.
NJOEM	2008 PSA 331 Develop a cadre of supplemental staff to assist NJOEM with education of affected communities, project assessment and development of mitigation projects.	3	High	Continuing Capability / Responsibility	Mitigation grants	All Hazards	Allow flexibility in staffing and increase during periods of disasters. Hiring staff is necessary for the Mitigation Unit to fulfill its responsibilities and manage its increased workload resulting from recent disasters and commitments in the SHMP.	Provide better public relations, education and identification of viable hazard mitigation projects.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	2008 PSA 341 Conduct community outreach, workshops and training opportunities to promote development of PDM plans.	3	High	Continuing Capability / Responsibility	Mitigation grants and technical assistance funds.	All Hazards	Development of FEMA approved plans is required for HMGP and PDM funds	Approved plans will allow communities to receive mitigation grants to implement projects that will protect life and property.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 342 Increase NJOEM staffing in areas of planning, engineering and management.	3	High	Continuing Capability / Responsibility	Mitigation grants	All Hazards	Additional staff required to expand expertise, for the timely development of hazard mitigation plans and to facilitate implementation of projects.	Development of viable local hazard mitigation plans and projects.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 431 Continuingly update repetitive loss and severe repetitive loss lists from the NFIP.	4	High	Continuing Capability / Responsibility	Existing staff	All Hazards	Essential to continuing the State's effort to reduce flood losses. Enables NJOEM to appropriately prioritize its actions to mitigate repetitive loss and severe repetitive loss properties, in accordance with FEMA requirements (and potentially qualifies the State and local jurisdictions for the 90-10 federal-local match under the SRL program.	The State mitigation strategy has a focus on reducing losses to property by implementing appropriate flood mitigation activities. Keeping these lists up to date allows the State to prioritize assistance and funds.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	2008 PSA 432 Continue working with local and regional jurisdictions to encourage their cooperation in making repetitive property mitigation a high priority, and to offer technical support in carrying out the requirements of FEMA mitigation programs.	4	High	Continuing Capability / Responsibility	Existing staff, with support from FEMA Region II.	Flood	Basic requirement to initiate and sustain momentum	Initiates a long-term process to protect property from effects of repetitive flooding.	Continuing Capability/ Responsibility
NJOEM	2009 PSA 441 Overlay an inventory of State-owned critical facilities with the level of seismic hazard at each location, using the USGS national seismic hazard maps and the New Jersey Geological Survey maps of seismic soil classes.	4	Medium	Continuing Capability / Responsibility	To be determined	All Hazards	Serves as first step in a long-term plan to reduce risks to the most critical State facilities.	Results in protecting both life and property.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 481 Provide grants, planning tools, training and technical assistance to increase the number of public and private sector hazard mitigation plans and initiatives, especially for multi-jurisdiction districts.	4	High	Continuing Capability / Responsibility	Existing Resources, Mitigation Grant	All Hazards	Providing incentives and resources encourages organizations to develop hazard mitigation plans and initiatives they otherwise would not have	Expanding the number of hazard mitigation initiative will improve the state's resistance to hazards and reduce the impact of hazard events on the State's economy.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	2008 PSA 513 Continuingly update and enhance the State plan. Begin by incorporating recommended FEMA revisions. Institute stronger plan maintenance procedures, such as having agencies responsible for mitigation actions provide annual progress reports to the SHMO.	5	High	Continuing Capability / Responsibility	NJOEM, FEMA	All Hazards	Required to ensure that the plan is a current document, and remains useful to the State, as well as to local and regional planners.	The plan is the basis for prioritizing all actions.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 233 Conduct yearly workshops related to FEMA hazard mitigation grant programs.	2	High	Continuing Capability / Responsibility	Existing State Assets and Federal grants	Flood	Making local officials aware of FMA increases participation.	FMA contributes to the mitigations strategy to reduce future flood losses.	Continuing Capability/ Responsibility
NJOEM	2008 PSA 234 Promote acquisition and elevation of repetitive loss and severe repetitive loss structures.	2	High	Continuing Capability / Responsibility	Federal grants	Flood	To eliminate repetitive loss structures	Structures will no longer be flooded thereby reducing repetitive loss claims	Continuing Capability/ Responsibility
NJOEM Training Unit	2008 PSA 151 Promote Community Emergency Response Team (CERT) training	1	Medium	Continuing Capability/ Responsibility/ Program	Existing State Resources	All Hazards	To enhance local communities' ability to respond to hazard events.	Provides public and communities with immediate pool trained first responders.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM, NJDEP	2009 PSA 235 Conduct community outreach, workshops and training to increase NFIP participation. (This action is part of the Repetitive Loss strategy – Section 8)	1, 2, 4, 5	High	Continuing Capability / Responsibility	Existing State Resources	Flood	Encourages participation in the program so that losses will be covered and allows eligibility in the FMA program.	Allows for people to receive flood insurance claims and maintains eligibility in the FMA program of which flood insurance is a requirement.	Numerous CAVs, CACs, and workshops have taken place. Refer to Table 8-11 in Section 8.
NJOEM / NJFFS	2008 PSA 345 Ensure that each municipality and county develops a wildfire preparedness plan for incorporation into their local and county emergency management plans.	3	Medium	Continuing Capability / Responsibility	FEMA Fire Management Assistance Grant Program; National Fire Plan grants and NJDEP Community Wildfire Hazard Mitigation Grants, others.	All Hazards	Provides resources for preparing mitigation plans and implementation of measures to mitigate wildfire hazards	Helps to address goals of protecting life and property.	Continuing Capability/ Responsibility
NJOEM / NJGS	2008 PSA 161 Implement seismic retrofits critical facilities, which are especially vulnerable seismically and located in high hazard areas.	1	Medium	Continuing Capability / Responsibility	FEMA grant funds, grants from other federal or State agencies TBD.	Earthquake	Potential for deaths and casualties in certain combinations of building types and occupancies means that some critical facilities should be protected from seismic hazards.	Protects life and property. Will help State maintain operations in the event of an earthquake.	Continuing Capability/ Responsibility
NJOEM / NJGS	2009 PSA 351 Enhance public education and outreach efforts to increase awareness of earthquake hazards and risk in New Jersey.	3	Low to Medium	Continuing Capability / Responsibility	Existing State staff and funds.	All Hazards	Protects life and property.	Advances goals of protecting life and property.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM / Treasury	2008 PSA 214 Provide training seminars in identifying potential hazards to State bureaus responsible for rental/leasing of properties for State offices.	2	Medium	Continuing Capability / Responsibility	Existing resources	All Hazards	Training will augment existing initiatives of Treasury and the State's insurance carriers by expanding the number of hazards addressed and will use all existing hazard profiling information.	Identification of potential hazards will identify vulnerabilities and avoid losses to State facilities through mitigation or relocation. Securing facility contents will protect them from damage and also minimize flood insurance claims.	Continuing Capability/ Responsibility
NJOEM State Agencies Local Emergency Management Coordinators	2010 PSA 222 Encourage training of owners and operators of non-state owned critical facilities for hazard mitigation.	2	High	Continuing Capability / Responsibility	Existing resources	All Hazards	Targeted training will augment existing initiatives of NJOEM and insurance carriers.	Targeted training efforts based on identification of potential hazards will reduce vulnerabilities and losses to critical facilities through mitigation or relocation. Training to secure contents of critical facilities will protect assets from damage and minimize flood insurance claims.	Continuing Capability/ Responsibility
NJOEM Communications Bureau	2008 PSA 111 Expand reverse 911 implementation.	1	High	Continuing Capability / Responsibility	Existing State Resources	All Hazards	The State is seeking an inexpensive way to expand warning and emergency communication with the public.	Reverse 911 improves local and state capability to protect life.	Continuing Capability/ Responsibility
NJOEM Mitigation Unit	2008 PSA 131 Encourage participation in existing programs – FMA, PDM, HMGP.	1	High	Continuing Capability / Responsibility	Existing local, State and Federal grant funds.	Flood	Significant number of households are in floodplains and are potentially at risk to hazards and repetitive losses. Opportunities exist to coordinate with “smart growth” and “safe growth” planning initiatives.	Increasing municipal involvement in and public support for improving the structural integrity of vulnerable homes will improve the safety of households which would otherwise be at risk.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM Mitigation Unit	2008 PSA 153 Encourage educational programs (Rutgers, UMDNJ).	1	Medium	Continuing Capability / Responsibility	Existing State resources	All Hazards	Continued participation in this joint program leads to a stronger understanding of hazards and risks within the emergency management community as well as in the private sector.	Enhance community abilities to effectively respond to hazard events	Continuing Capability/ Responsibility
NJOEM Preparedness Unit	2008 PSA 112 Expand Flood Warning Systems (Preparedness Unit).	1	High	Continuing Capability / Responsibility	Existing State Resources	Flood	Improve coverage increases the number of people able to receive warning of potentially life threatening flooding events.	Expanding and enhancing this system improves local and state capability to protect life.	Continuing Capability/ Responsibility
NJOEM Training Unit	2008 PSA 151 Promote Community Emergency Response Team (CERT) training.	1	Medium	Continuing Capability / Responsibility	Existing State Resources	All Hazards	To enhance local communities' ability to respond to hazard events.	Provide public and communities with immediate pool trained first responders.	Continuing Capability/ Responsibility
NJOEM Training Unit	2008 PSA 152 Utilize the NJOEM Training Unit to train emergency responders.	1	Medium	Continuing Capability / Responsibility	Existing State Resources	All Hazards	To enhance local communities' awareness of risks.	Enhance community abilities to effectively respond to hazard events	Continuing Capability/ Responsibility
NJOIT	2009 PSA 271 Update and maintain continuity of government to enable the state government to provide critical services during an interruption of business.	2	High	Continuing Capability / Responsibility	Existing resources	All Hazards	Critical services are still necessary during an interruption of business.	The existence and exercise of these plans will assure that State Government services will continue to be provided regardless of the hazards faced.	Continuing Capability/ Responsibility



Table6-13.Previous Mitigation Measures and Projects Now Continuing Programs/State Capabilities

Responsible Agency	Mitigation Action/Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOIT/GIS	2009 PSA 323 Develop a hazard event GIS database to help State and local emergency managers with hazard mitigation and other planning initiatives.	3	High	Continuing Capability / Responsibility	Existing resources	All Hazards	The current NJOEM GIS database to capture and organize the volume of information generated by research and actual disaster events needs to be expanded.	Improving knowledge of hazards and hazard events will improve mitigation and other planning designs to reduce the impact of hazard events on local and state economies.	Continuing Capability/ Responsibility
NJOIT/GIS	2009 PSA 324 Expand and enhance GIS/HAZUS hazard mitigation databases and use for analysis and mapping in the SHMP.	3	High	Continuing Capability / Responsibility	Existing resources and mitigation grants	All Hazards	Provide a data base for the identification of hazardous areas and provide loss estimations for hurricanes and flood winds	Provide rationalization for future land use planning.	Continuing Capability/ Responsibility
Rutgers University	2009 PSA 313 Promote continuing education of state and local officials through Rutgers programs.	3	Medium	Continuing Capability / Responsibility	Existing State resources	All Hazards	To make local officials and emergency management coordinators aware of possible hazards and actions to reduce hazards and vulnerabilities in their community.	Increases protection to property and life in the state.	Continuing Capability/ Responsibility

* In the 2011 Plan, the responsible agency for these actions was listed as 'Various'. To ensure that progress can be monitored on this action, a lead responsible agency was identified in the 2014 Plan update.

Notes:

CAC Community Assistance Contacts
 CAP-SSSE Community Assistance Program - State Support Services Element
 CAV Community Assistance Visit
 CERT Community Emergency Response Team
 FEMA Federal Emergency Management Agency
 FMA Flood Mitigation Assistance Program
 GIS Geographic Information Systems

HAZUS
 HMGP
 NFIP
 NJDCA
 NJDEP
 NJGWS
 NJOEM
 NJOIT

Hazards U.S.
 Hazard Mitigation Grant Program
 National Flood Insurance Program
 Department of Community Affairs
 New Jersey Department of Environmental Protection
 New Jersey Geologic and Water Survey
 New Jersey Office of Emergency Management
 New Jersey Office of Information Technology



PDM
PSA
SHMO

Pre-Disaster Mitigation
Prior Strategy Action
State Hazard Mitigation Officer

SRL
TBD
UMDNJ

Severe Repetitive Loss
To be determined
University of Medicine and Dentistry of New Jersey



6.4.3 New Mitigation Actions

All State agencies and academia identified in Section 2 (Planning Process) were given the opportunity to add new mitigation actions to the 2014 Plan update. Table 6-12 summarizes these new actions and each action's responsible lead agency, associated goal, priority, projected timeline and resources, hazards it will address, rationale, and how the action contributes to the mitigation strategy. The actions are organized by agency.

Unless local municipalities specifically opt out, all State led mitigation actions in support of the State's NFIP policy or other State led efforts, inclusive of but not limited to, acquisitions, elevations, and energy resiliency, shall be considered to be covered by the State Hazard Mitigation Plan.

To further facilitate these efforts, the State will require all counties to include the above action in their local mitigation plan, by providing suggested language that describes supporting State led efforts.

In the wake of Sandy, the following mitigation projects/initiatives have been recommended by Federal and State agencies for possible inclusion in the State Plan update. These recommendations should be formally considered and addressed by the appropriate agency and, as appropriate, embodied within mitigation actions in the updated State mitigation strategy:

Recommendations from FEMA's Post-Sandy Mitigation Assessment Team (MAT):

FEMA's Mitigation Assessment Team (MAT) review of Superstorm Sandy and November 2013 MAT report identified a number of possible code and regulatory initiatives that should be reviewed by the appropriate agencies, specifically NJDEP and NJDCA, for possible inclusion in their State level mitigation strategy updates (FEMA 2013a). Due to the timing of this reports official release, the SHMT was unable to identify, evaluate and prioritize actions based on the report's recommendations and include them as part of the State's mitigation strategy. The State will review the report and identify the steps that will be taken. This has been identified as a 'next step and is presented further in Section 11.

Flood Hazard Area Control Act

Conclusion:

- In January 2013, the NJDEP issued emergency amendments and concurrent proposed amendments to the Flood Hazard Area Control Act Rules
- The emergency rules were adopted in May 2013 without change
- Read in conjunction with the Uniform Construction Code (UCC), these rules ensure that structures are elevated in accordance with federal requirements.

Recommendation: In an effort to prevent confusion among the regulated community, NJDEP, in coordination with the NJDCA, shall review the Flood Hazard Area Control Act rules that apply specifically to buildings and other structures to ensure consistency with the Uniform Construction Code (UCC) and NFIP.

Model Flood Damage Prevention Ordinance

Conclusion:

- The NJDEP Community Assistance Program Unit provides a model flood damage prevention ordinance that contains complete requirements for regulating development in flood hazard areas, including requirements that are, for the most part, duplicative with the flood provisions of the UCC.



- Local officials in New Jersey and the regulated public are expected to resolve the differences between three sets of rules: the Flood Hazard Area Control Act rules, the flood provisions of the UCC, and locally adopted flood damage prevention ordinances.

Recommendation: The NJDEP should evaluate the model floodplain management ordinance that is being developed by FEMA that is specifically written to coordinate with building codes and consider its merits related to reducing duplicative and potentially conflicting requirements. Adopting a coordinated ordinance will enhance local enforcement.

Need for Amendments to New Jersey UCC

Conclusion: The MAT review of the flood provisions of the NJ UCC identified a number of opportunities for amendments

Recommendation: FEMA recommends that the NJDCA amend the UCC to:

- Explicitly link the rehabilitation subcode to the prior approval process under which local floodplain administrators make SD and SI determinations
- Specifically refer to local floodplain management regulations where FIS and FIRMs are adopted

Modify UCC Section R322.3 (coastal high hazard area) to refer to ASCE 24, *Flood Resistant Design and Construction*



New Priorities, Actions and Funding Sources

In response to Superstorm Sandy and other events like Hurricane Irene, Governor Christie has led a comprehensive recovery effort to rebuild New Jersey's communities. The Governor's core mission is to lead the State's revitalization following Superstorm Sandy in cooperation with all Federal, State, local, private, and non-governmental entities to achieve a stronger and more resilient New Jersey. While work underway focusses on the Governor's priorities to rebuild destroyed housing and small businesses, the goal is to rebuild with the future in mind. With the support of State Departments and Agencies, the Governor is carrying out this mission by developing priorities and objectives to address the impacts of the storm on New Jersey's communities and businesses. As part of the ongoing recovery process, the State is:

- Working closely with local communities and stakeholders to develop comprehensive plans for recovery and to maximize disaster relief funds;
- Providing critical resources to rebuild housing, public buildings, small businesses, and infrastructure in a manner that is cost-efficient and disaster resilient;
- Developing hazard mitigation initiatives to create stronger communities;
- Cutting red tape and streamlining the regulatory framework for recovery and rebuilding; and
- Incorporating compliance measures into the State's grant programs to ensure effective and efficient use of funds.

As demonstrated in Table 6-11 through Table 6-13, the State of New Jersey has a robust and successful mitigation program which in the past has focused on mitigating hazards associated with flooding, storm surge and other severe weather events. Acquisitions and elevations continue to be one of the State's top priorities in mitigating flood risk as discussed in the Hazard Mitigation Grant Program Administrative Plan (refer to Annex A) and the New Jersey Action Plan (New Jersey Department of Community Affairs, Superstorm Sandy Community Development Block Grant – Disaster Recovery, March 2013). Supplementing the State's historic approach to hazard mitigation is the addition of new mitigation actions focused on continuity of operations, critical facilities, fuel resiliency and infrastructure. Table 6-14 identifies the State's new mitigation actions for the 2014 Plan.

As the recovery process continues, the State anticipates utilizing the plan maintenance process to evaluate and enhance continuous/in-progress mitigation actions. Based on the evaluation, the State may supplement the items found in Table 6-14 with new mitigation actions. Consideration/evaluation of new mitigation actions will be a part of the bi-annual SHMT meetings outlined in Section 7 (Plan Maintenance).



Table 6-14. New Mitigation Actions for the 2014 Plan

Responsible Agency	Mitigation Action/ Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJDEP, NJOEM, NJOHSP, NJBPU, and others	Implement an Energy Allocation Initiative that provides government units with financing for alternative energy projects to reduce demand on the power grid during an event and while the State recovers from any grid disruption	1, 2, 6	High	5 years	FEMA Grant Funding	All Hazards	Provide energy resiliency to municipalities, counties and other government units to pursue creative and cost-effective alternatives to enhance statewide energy resiliency.	Provides energy resiliency. Refer to Appendix E for additional details (2013 New Jersey State Hazard Mitigation Plan Amendment).	New
NJOEM, NJEDA, NJDEP, and others	Improve retail fuel stations' ability to provide fuel in the event of power disruptions through the Liquid Fuel Resilience Program, which provides funding for onsite generators and "quick connect" points for portable generators.	1, 2	High	5 years	FEMA Grant Funding	All Hazards	Builds resilience in fuel supply and distribution.	Provides liquid fuel supply continuity during future hazards. Refer to Appendix E for additional details (2013 New Jersey State Hazard Mitigation Plan Amendment).	New
NJDEP	Improve water supply resiliency by increasing interconnections amongst water supply systems throughout the State	1	High	5 years	FEMA Grant Funding and existing State Funding Options, potentially including EPA/SRF funds	All Hazards	Existing water systems need to establish interconnections and alternate water supplies to sustain residential water service.	Provides resiliency and long-term water supply.	New
NJDEP, NJOSHSP, among others	Update information technology and mapping systems	1, 2	High	10 years	FEMA Grant Funding, other federal funds and existing State funding options	All Hazards	Mapping and measuring tools will help analyze future hazards.	Facilitates a better understanding of natural systems.	New
NJDOT	Constructing seismic retrofits on bridges to improve resiliency against earthquake damage	1, 2, 6	High	Ongoing	FHWA ER Program and/or FEMA 404	Earthquake	Critical bridge/route for evacuation purposes.	Reduces future earthquake road and bridge damage.	New
NJDOT	Hardening of traffic controllers*	1, 2, 6	High	Ongoing	FHWA ER Program and/or FEMA 404	All Hazards	Critical bridge/route for evacuation purposes.	Reduces future traffic controller and signal damage.	New
NJDOT	Hardening of draw bridges*	1, 2, 6	High	Ongoing	FHWA ER Program and/or FEMA 404	All Hazards	Critical bridge/route for evacuation purposes.	Reduces future moveable bridge damage.	New



Table 6-14. New Mitigation Actions for the 2014 Plan

Responsible Agency	Mitigation Action/ Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJDOT	Upgrading highway drainage systems*	1, 2, 6	High	Ongoing	FHWA ER Program and/or FEMA 404	Flood	Critical bridge/route for evacuation purposes.	Reduces flood damage.	New
NJDOT	Installing and and hardening pumps stations*	1, 2, 6	High	Ongoing	FHWA ER Program and/or FEMA 404	Flood	Critical bridge/route for evacuation purposes.	Reduces flood damage.	New
NJDOT	Installing deep pavement boxes throughout critical evacuation routes*	1, 2, 6	High	Ongoing	FHWA ER Program and/or FEMA 404	All Hazards	Critical bridge/route for evacuation purposes.	Reduces future road and bridge damage.	New
NJDOT	Geospatial mapping of navigable waterways	4, 5, 6	High	Ongoing	FHWA ER Program and/or FEMA 404	All Hazards	Understand State assets to better prepare for future hazards.	Improves allocation of resources to maintain navigable waterways.	New
NJDOT	Anti-scouring measures to improve bridge and road longevity	1, 2, 6	High	Ongoing	FHWA ER Program and/or FEMA 404	Flood	Critical bridge/route for evacuation purposes.	Reduces future road and bridge damage.	New
NJOEM	Promote the integration of findings and actions of local mitigation plans into other local planning mechanisms.	5	Medium	3 years	Federal and State Resources	All Hazards	Coordination of efforts.	Supports resiliency.	New
NJOEM	Following the development and completion of the NJ Transit and PANYNJ vulnerability assessments (discussed in Section 5.1), the 2017 Plan update will incorporate their findings, recommendations and actions.	1, 2, 6	High	3 years	Federal and State Resources	All Hazards	Further development of risk profiles and vulnerability assessments. Increased plan and program integration.	Develop mitigation actions for critical infrastructure.	New
NJOEM	To provide technical assistance to Counties regarding hazard mitigation plan updates to ensure consistency across local capability assessments, risk ranking and vulnerability assessments.	4, 5	High	3 years	Federal and State Resources	All Hazards	Consistent methodology and reporting of local plans will allow for an efficient roll-up of local plans and further enhance the State HMP.	Enhance State and local mitigation capabilities to reduce hazard vulnerabilities.	New



Table 6-14. New Mitigation Actions for the 2014 Plan

Responsible Agency	Mitigation Action/ Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
NJOEM	To develop a mitigation after-action template, and use this tool to capture lessons learned and success stories post-disaster.	4, 5, 6	High	Within 18 months of a disaster declaration.	Internal NJOEM resources	All	After-action reports are an integral part of the emergency preparedness planning continuum and support effective crisis response and mitigation.	Lessons learned can be used to proactively develop and enhance State and county mitigation plans and procedures that will support resiliency.	New
NJOEM	A data capture tool (spreadsheet or otherwise) will be developed that will support the aggregation and archiving of municipal, county, and local events and loss data as it becomes available in the post-disaster recovery period.	4, 5	Medium	3 years	Internal NJOEM resources	All	The data capture system shall be designed and made available to support local mitigation planning and grant application (benefit-cost) activities, and shall serve as a basis for the regular update of the State risk assessment.	Enhance State and local mitigation capabilities to reduce hazard vulnerabilities.	New
NJOEM/OHSP	Work with State agencies to update the critical facility spatial inventory developed for the 2014 Plan update with best available data and identify which are State-owned critical facilities, and which are non-State-owned critical facilities.	1, 2, 4, 5	High	3 years	Internal NJOEM and OHSP resources	All	This new attribute will further allow State agencies to identify mitigation priorities and actions for their facilities.	Protects life, protects property, increases understanding of risks, and supports continuity of operations.	New
Office of the NJ State Climatologist (ONJSC) at Rutgers	Maintain and potentially expand New Jersey Weather and Climate Network (NJWxNet) operations	3	High	Ongoing	FEMA; NJOEM; NJOHSP; NJDEP; others	Severe Weather	Provides real-time weather monitoring to keep officials apprised of ongoing and changing conditions. Potential expansion to additional locations.	Well-informed individuals who are cognizant of weather conditions can make decisions associated with life and property.	New
ONJSC Rutgers	Maintain and continually update the weather/climate hazards portal and dashboard	3	High	Development (2 years). Operation and maintenance (ongoing).	FEMA; NJOEM; NJOHSP; others	Severe Weather	The portal continually provides a multitude of baseline information from the ONJSC and numerous other sources. The dashboard provides data and information customized for a specific significant event.	Essential for planning, preparation, response, and recovery associated with weather and weather-related events.	New



Table 6-14. New Mitigation Actions for the 2014 Plan

Responsible Agency	Mitigation Action/ Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
ONJSC Rutgers	Maintain and continually update the climate data and information warehouse and software library	3	High	Development (3years). Operation and maintenance (ongoing).	FEMA; NJOEM; NJOHSP; others	Severe Weather	Source of weather/climate-related products that may be customized for State, county, or community assessments of hazards and risks	Permits public entities of any size to generate weather/climate products for use in event reports, mitigation proposals, and various planning documents.	New
Rutgers University - Bloustein School	Develop geospatial and analytical tools to support community engagement, policy reform, and State and regional planning efforts	3	High	June 2013 - May 2014	Joint effort between Rutgers SEBS, CRSSA, and the Bloustein School	All Hazards	To make local officials and emergency management coordinators aware of possible hazards and potential actions that may help to reduce hazards and vulnerabilities within their community	Geospatial and analytical tool development will help to inform community members throughout New Jersey, as well as help to guide possible additions to State, county, and local mitigation plans.	New
Rutgers University - Bloustein School	Perform mobile LiDAR and digital imagery acquisition along an estimated 2,500 miles of residential and urban roads in ABFE Zones A and V	3	Medium	Long-Term	Joint effort between Rutgers CAIT and the Bloustein School	Flood	Provide accurate visual models of current ground elevations of buildings and infrastructure located in ABFE Zones A and V.	Development of 3D visualizations will help analyze geospatial risk data.	New
Rutgers University - Bloustein School	Create a geospatial dataset for each of the 21 counties that include the IA, PA, and NFIP payouts for each major storm event where data is available, aggregated at the Census Block level	5	High	5 months	Rutgers Bloustein School	All Hazards	Data useful to local planners and emergency management personnel when preparing updates to their Hazard Mitigation and Disaster Recovery Plans, as well as identifying areas that should be evaluated for possible property buyouts and relocation of families and businesses.	Data could help guide County planners and Emergency management personnel when preparing updates to Hazard Mitigation and Disaster Recovery Plans.	New



Table 6-14. New Mitigation Actions for the 2014 Plan

Responsible Agency	Mitigation Action/ Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
Stockton College - CRC	Purchase a Laser Scanner to enhance coastal surveying	3	Medium	Depends on Funding	FEMA HMGP	All Hazards	Enhance and complement existing and new methods of surveying to collect high-resolution elevation data.	Deploying a mobile laser scanner will enhance the CRC's efforts by reducing field data collection time for the New Jersey Beach Profile Network (NJBPN), while increasing the resolution of data within the State of New Jersey's coastal zone.	New
PANYNJ	Teterboro Airport – Perform resilience enhancements to the back-up power system.	6	High	2 years, depending on funding availability. Project LOI submitted to NJOEM under Sandy HMGP.	FEMA Grant Funding with facility providing local match	All Hazards	Maintenance Building 73 contains much of the emergency equipment, as well as the key maintenance staff, necessary to keep the airport running. Administrative Building 72 is where critical security and communications equipment is located for the entire airport. The two solid waste lifts stations are susceptible to power failures during floods, and it is very important for these facilities to have their own reliable source of back-up power in order to function.	The Teterboro Airport is an important component of the Region's transportation infrastructure, particularly as it concerns private air traffic into the NY/NY metropolitan area. The capability to maintain a reliable source of power for this airport and its supporting operations is critical to the Region's ability to respond to normal and emergency transportation needs.	PANYNJ



Table 6-14. New Mitigation Actions for the 2014 Plan

Responsible Agency	Mitigation Action/ Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
PANYNJ	Teterboro Airport – Perform stormwater drainage improvements.	2, 6	Medium	2 years, depending on funding availability. Project LOI submitted to NJOEM under Sandy HMGP.	FEMA Grant Funding with facility providing local match	Flood	Due to its location, Teterboro Airport is vulnerable to regular stormwater flooding. During Superstorm Sandy, the airport experience serious flooding over much of its infrastructure.	The Teterboro Airport is an important component of the Region’s transportation infrastructure, particularly as it concerns private air traffic into the NY/NY metropolitan area. Mitigation measures can lessen the effects of flooding and will allow the airport to continue to function during an emergency and support the area’s normal and emergency transportation needs.	PANYNJ
PANYNJ	Newark Airport – Perform resilience enhancements to the back-up power system.	6	High	2 years, depending on funding availability. Project LOI submitted to NJOEM under Sandy HMGP.	FEMA Grant Funding with facility providing local match	All Hazards	A program for the installation of permanent generators at critical locations around the airport would alleviate many of the operability problems experienced during power failures.	The Newark International Airport is a critical component of the Region’s transportation infrastructure, accounting for over 400,000 plane landings a year and moving over 33 million passengers through the NY/NJ metropolitan area. The capability to maintain a reliable source of power for this airport and its supporting operation is critical to the Region’s ability to respond to normal and emergency transportation needs.	PANYNJ



Table 6-14. New Mitigation Actions for the 2014 Plan

Responsible Agency	Mitigation Action/ Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
PANYNJ	Newark Airport – Perform resilience enhancements to the back-up power system – City of Newark Pump Station.	6	Medium	2 years, depending on funding availability. Project LOI submitted to NJOEM under Sandy HMGP.	FEMA Grant Funding with facility providing local match	All Hazards	The City of Newark pump station is owned and operated by the City of Newark and provides the flood control necessary for surrounding towns and agencies. The installation of a backup generator would prevent flooding at the airport and surrounding area when the primary feed is not in service.	The Newark International Airport is a critical component of the Region’s transportation infrastructure, accounting for over 400,000 plane landings a year and moving over 33 million passengers through the NY/NJ metropolitan area. The capability to maintain a reliable source of power for this airport and its supporting operation is critical to the Region’s ability to respond to normal and emergency transportation needs.	PANYNJ
PANYNJ	Newark Airport – Perform stormwater drainage at Terminal B.	2, 6	Medium	2 years, depending on funding availability. Project LOI submitted to NJOEM under Sandy HMGP.	FEMA Grant Funding with facility providing local match	Flood	The drainage system surrounding Terminal B needs significant rehabilitation to increase capacity. The current drainage system is not capable of handling the runoff from the parking area, restricted vehicle service road, and roof drains. The trench drain must be increased in size to prevent the baggage room and Terminal B lower level from flooding.	The Newark International Airport is a critical component of the Region’s transportation infrastructure, accounting for over 400,000 plane landings a year and moving over 33 million passengers through the NY/NJ metropolitan area. The capability to maintain a reliable source of power for this airport and its supporting operation is critical to the Region’s ability to respond to normal and emergency transportation needs.	PANYNJ



Table 6-14. New Mitigation Actions for the 2014 Plan

Responsible Agency	Mitigation Action/ Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
PANYNJ	Newark Airport – Perform resiliency improvements to airport drainage system (valves).	2, 6	High	2 years, depending on funding availability. Project LOI submitted to NJOEM under Sandy HMGP.	FEMA Grant Funding with facility providing local match	Flood	This project will help to prevent the flooding of the lower level of Terminal B and P7 lot.	The Newark International Airport is a critical component of the Region’s transportation infrastructure, accounting for over 400,000 plane landings a year and moving over 33 million passengers through the NY/NJ metropolitan area. The capability to maintain a reliable source of power for this airport and its supporting operation is critical to the Region’s ability to respond to normal and emergency transportation needs.	PANYNJ
PANYNJ	Newark Airport – Perform resiliency improvements to airport Peripheral Ditch drainage system.	2, 6	High	2 years, depending on funding availability. Project LOI submitted to NJOEM under Sandy HMGP.	FEMA Grant Funding with facility providing local match	Flood	The Peripheral Ditch is the catch basin to many outfalls and provides a source for retention of carport drainage. The source of the outfalls come from various locations including the City of Newark, the City of Elizabeth, the Passaic Valley Sewerage Authority, and NJ Turnpike. If the ditch is not providing optimal performance the impact could be affecting the surrounding areas.	The Newark International Airport is a critical component of the Region’s transportation infrastructure, accounting for over 400,000 plane landings a year and moving over 33 million passengers through the NY/NJ metropolitan area. The capability to maintain a reliable source of power for this airport and its supporting operation is critical to the Region’s ability to respond to normal and emergency transportation needs.	PANYNJ



Table 6-14. New Mitigation Actions for the 2014 Plan

Responsible Agency	Mitigation Action/ Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
PANYNJ	Lincoln Tunnel – Perform resiliency of tunnel electrical system for tunnel drainage pumps and ventilation system	6	High	2 years, depending on funding availability. Project LOI submitted to NJOEM under Sandy HMGP.	FEMA Grant Funding with facility providing local match	All Hazards	The capability to maintain a reliable source of power for this tunnel and its supporting operations is critical to the Region’s ability to respond to normal and emergency transportation needs.	The Lincoln Tunnel is a critical component of the Region’s transportation infrastructure, and in addition to providing access to about 120,000 vehicles a day, it also serves as a major evacuation route for the area and a key point of entry and exist for emergency personnel. These measures would ensure that this vital transportation link for the NY-NJ metropolitan area could restore service as soon as possible in a safe manner.	PANYNJ
PANYNJ	Holland Tunnel – Perform resiliency of tunnel electrical system: Power Service for Drainage Pumps and Ventilation System	6	High	2 years, depending on funding availability. Project LOI submitted to NJOEM under Sandy HMGP.	FEMA Grant Funding with facility providing local match	All Hazards	The capability to maintain a reliable source of power for this tunnel and its supporting operations is critical to the Region’s ability to respond to normal and emergency transportation needs.	The Holland Tunnel is a critical component of the Region’s transportation infrastructure, and in addition to providing access to about 100,000 vehicles a day, it also serves as a major evacuation route for the area and a key point of entry and exist for emergency personnel. These measures would ensure that this vital transportation link for the NY-NJ metropolitan area could restore service as soon as possible in a safe manner.	PANYNJ



Table 6-14. New Mitigation Actions for the 2014 Plan

Responsible Agency	Mitigation Action/ Initiative	Goal	Priority	Projected Timeline	Projected Resources	Hazards Addressed	Rationale for Action and Priority	How Action Contributes to Mitigation Strategy	2014 Plan Update Status
PANYNJ	George Washington Bridge – Resiliency of Electrical System	6	High	2 years, depending on funding availability. Project LOI submitted to NJOEM under Sandy HMGP.	FEMA Grant Funding with facility providing local match	All Hazards	The capability to maintain a reliable source of power for this bridge and its supporting operations is critical to the region’s ability to respond to normal and emergency transportation needs.	The bridge is a critical component of the Region’s transportation infrastructure, and in addition to providing access for hundreds of thousands of vehicles a day, it also serves as a major evacuation route for the area.	PANYNJ
PANYNJ	George Washington Bridge – Drainage Improvements for New Jersey Anchorage	2, 6	High	2 years, depending on funding availability. Project LOI submitted to NJOEM under Sandy HMGP.	FEMA Grant Funding with facility providing local match	Flood	The value of mitigation the effects from heavy rainfall to the bridge’s structural components in the New Jersey anchorage are high. It would eliminate the possibilities of structural failures in the area of the bridge and contribute to the region’s ability to respond to normal and emergency transportation needs.	The bridge is a critical component of the Region’s transportation infrastructure, and in addition to providing access for hundreds of thousands of vehicles a day, it also serves as a major evacuation route for the area.	PANYNJ
PANYNJ	Develop a Port Authority of New York and New Jersey Multi-Hazard Mitigation Plan	All	High	2 years, depending on funding availability. Project LOI submitted to NJOEM under Sandy HMGP.	FEMA Grant Funding with facility providing local match	All Hazards	The PANYNJ is responsible for building, operating, and maintaining infrastructure critical to the region’s trade and transportation needs. As part of its recovery efforts from Superstorm Sandy, the PANYNJ has identified the need to develop a comprehensive mitigation plan for its facilities.	The information developed, and priorities established, during a PANYNJ hazard mitigation plan would then become a component of the State mitigation planning, considering the key role that the Port Authority’s infrastructure plays in New Jersey’s economy.	PANYNJ

Notes:

*The new actions listed are infrastructure hardening/retrofit actions to address various hazards.

3D

Three Dimensional



<i>ABFE</i>	<i>Advisory Base Flood Elevation</i>
<i>CAIT</i>	<i>Center for Advanced Infrastructure and Transportation (Rutgers)</i>
<i>CRC</i>	<i>Coastal Research Center</i>
<i>CRSSA</i>	<i>Center for Remote Sensing and Spatial Analysis (Rutgers)</i>
<i>FEMA</i>	<i>Federal Emergency Management Agency</i>
<i>FHWA ER</i>	<i>Federal Highway Administration Emergency Relief</i>
<i>HMGF</i>	<i>Hazard Mitigation Grant Program</i>
<i>IA</i>	<i>Individual Assistance</i>
<i>LiDAR</i>	<i>Light Detection and Ranging</i>
<i>NFIP</i>	<i>National Flood Insurance Program</i>
<i>NJBPN</i>	<i>New Jersey Beach Profile Network</i>
<i>NJBPU</i>	<i>New Jersey Board of Public Utilities</i>
<i>NJEDA</i>	<i>New Jersey Economic Development Authority</i>
<i>NJDEP</i>	<i>New Jersey Department of Environmental Protection</i>
<i>NJDOT</i>	<i>New Jersey Department of Transportation</i>
<i>NJOEM</i>	<i>New Jersey Office of Emergency Management</i>
<i>NJOHS&P</i>	<i>New Jersey Office of Homeland Security and Preparedness</i>
<i>NJWxNet</i>	<i>New Jersey Weather and Climate Network</i>
<i>OHSP</i>	<i>New Jersey Office of Homeland Security and Preparedness</i>
<i>ONJSC</i>	<i>Office of the New Jersey State Climatologist</i>
<i>PA</i>	<i>Public Assistance</i>
<i>SEBS</i>	<i>School of Environmental and Biological Sciences (Rutgers)</i>



6.4.4 Prioritizing Mitigation Actions

44 CFR 201.4(c)(3)(iii):An identification, evaluation and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions...

In previous versions of the State HMP the social, technical, administrative, political, legal, economic, and environmental (STAPLEE) criteria were used for project evaluation and prioritization. The STAPLEE method provides a systematic approach that considers the opportunities and constraints of implementing a particular mitigation action.

The 2011 New Jersey State Plan used a STAPLEE methodology identified in earlier FEMA mitigation planning guidance (FEMA 386-3) for project evaluation and prioritization, which includes 23 evaluation criteria within the seven STAPLEE criteria types. Recent FEMA planning guidance (March 2013) identifies a modified STAPLEE mitigation action evaluation schema that uses a reduced set of 10 evaluation criteria, more suited to the purposes of mitigation strategy evaluation. Per SHMT approval, the updated STAPLEE criteria, along with an additional criteria specifically addressing cost-effectiveness, were used to evaluate and prioritize new mitigation actions for the 2014 Plan update. The 11 evaluation criteria are defined below:

- **Life Safety** – How effective will the action be at protecting lives and preventing injuries?
- **Property Protection** – How significant will the action be at eliminating or reducing damage to structures and infrastructure?
- **Cost-Effectiveness** – Are the costs to implement the project or initiative commensurate with the benefits achieved?
- **Technical** – Is the mitigation action technically feasible? Is it a long-term solution? Eliminate actions that, from a technical standpoint, will not meet the goals.
- **Political** – Is there overall public support for the mitigation action? Is there the political will to support it?
- **Legal** – Does the State have the authority to implement the action?
- **Environmental** – What are the potential environmental impacts of the action? Will it comply with environmental regulations?
- **Social** – Will the proposed action adversely affect one segment of the population? Will the action disrupt established neighborhoods, break up voting districts, or cause the relocation of lower income people?
- **Administrative** – Does the State have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?
- **Agency Champion** – Is there a strong advocate for the action or project among State agencies that will support the action's implementation?
- **Other State and Local Objectives** – Does the action advance other State and local objectives, such as capital improvements, economic development, environmental quality, or open-space preservation? Does it support the policies of other plans and programs?

Agencies were asked to use these criteria to assist them in evaluating and prioritizing new mitigation actions identified in the 2014 update. Specifically, for each new mitigation action, agencies were asked to assign a numeric rank (-1, 0, or 1) for each of the 11 evaluation criteria, defined as follows

- 1 = Highly effective or feasible
- 0 = Neutral
- -1 = Ineffective or not feasible



The numerical results of this exercise were then used by each agency to help prioritize the action or strategy as “Low”, “Medium,” or “High.” While this provided a consistent, systematic methodology to support the evaluation and prioritization of new mitigation actions, agencies may have additional considerations that could influence their overall prioritization of mitigation actions.

It is important to note that certain initiatives from the 2011 HMP are being carried forward in the 2014 Plan update. As discussed, these initiatives were previously prioritized using the STAPLEE approach in 2011. At their discretion, agencies carrying forward prior initiatives were encouraged to re-evaluate their priority, particularly if conditions that would affect the prioritization criteria had changed. Where agencies determined that their original priority ranking for “carry forward” initiatives remained valid, they were not required to re-prioritize using the 2014 updated STAPLEE criteria because is fundamentally identical to the STAPLEE used in 2011. There were no agencies that identified a change in prioritization for mitigation actions being carried forward in the 2014 Plan update. The priority ranking for initiatives carried forward are indicated in Table 6-11.

Table 6-15 lists the prioritization of the new actions. The prioritization of all previous actions (listed as on-going in Table 6-13 above) has remained the same. Appendix S includes the STAPLEE criteria for the 2011 Plan previous mitigation actions.



Table 6-15. Prioritization of New Actions Added to the 2014 Plan

Responsible Agency	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Environmental	Social	Administrative	Agency Champion	Other Community Objectives	Total
NJDEP, NJOEM, NJOHSP, NJBPU, and others	Energy Allocation Initiative	1	1	0	1	0	0	1	1	0	1	1	7
NJOEM, NJEDA, NJDEP, and others	Liquid Fuel Resilience Program	1	1	1	1	0	0	0	1	1	1	1	8
NJDEP	Improve water supply resiliency	1	1	0	1	0	1	1	1	0	1	1	8
NJDEP, NJOSHP, among others	Update information technology and mapping systems	1	1	1	1	1	1	0	0	1	1	1	9
NJDOT	Seismic Retrofit	1	1	1	1	1	1	1	1	0	1	0	9
NJDOT	Hardening of traffic controllers	1	1	1	1	1	1	1	1	1	1	0	10
NJDOT	Hardening of draw bridges	1	1	1	1	1	1	1	1	0	1	1	10
NJDOT	Upgrade of highway drainage systems	1	1	1	1	1	1	1	1	0	1	1	10
NJDOT	Install and harden pumps stations	1	1	1	1	1	1	1	1	0	1	1	10
NJDOT	Deep pavement boxes	0	1	1	1	1	1	1	1	0	1	1	9
NJDOT	Geospatial mapping of navigable waterways	0	1	1	1	1	1	1	1	1	1	0	9
NJDOT	Anti-scouring measures	1	1	1	1	1	1	1	1	0	1	1	10
NJOEM	Promote the integration of findings and actions of local mitigation plans into other local planning mechanisms.	1	1	0	1	1	1	0	1	0	1	1	9
NJOEM	Following the development and completion of the NJ Transit and PANYNJ vulnerability assessments (discussed in Section 5.1), the 2017	1	1	1	1	1	1	0	1	1	1	1	10



Table 6-15. Prioritization of New Actions Added to the 2014 Plan

Responsible Agency	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Environmental	Social	Administrative	Agency Champion	Other Community Objectives	Total
	Plan update will incorporate their findings, recommendations and actions.												
NJOEM	To provide technical assistance to Counties regarding hazard mitigation plan updates to ensure consistency across local capability assessments, risk ranking and vulnerability assessments.	1	1	1	1	1	1	0	0	1	1	1	9
NJOEM	To develop a mitigation after-action template, and use this tool to capture lessons learned and success stories post-disaster.	1	1	1	1	0	1	1	0	1	1	1	9
NJOEM	A data capture tool will be developed that will support the aggregation and archiving of municipal, county, and local events and loss data as it becomes available in the post-disaster recovery period.	1	1	1	1	0	1	0	0	1	1	1	8
NJOEM/OHSP	Work with State agencies to update the critical facility spatial inventory developed for the 2014 Plan update with best available data and identify which are State-owned critical facilities, and which are non-State-owned critical facilities.	1	1	1	1	1	1	0	0	1	1	1	9
Office of the NJ State Climatologist (ONJSC) at Rutgers	Maintain and potentially expand New Jersey Weather and Climate Network (NJWxNet) operations	1	1	1	1	1	0	0	0	1	1	1	8
ONJSC Rutgers	Maintain and continually update the weather/climate hazards portal and dashboard	1	1	1	1	1	0	0	0	1	1	1	8
ONJSC Rutgers	Maintain and continually update the climate data and information warehouse and software library	0	1	1	1	1	0	0	0	1	1	1	7
Rutgers University - Bloustein School	Develop geospatial and analytical tools to support community engagement, policy reform, and State and regional planning efforts	1	1	1	1	1	1	1	1	1	1	1	11
Rutgers University - Bloustein School	Perform mobile LiDAR and digital imagery acquisition along an estimated 2,500 miles of residential and urban roads in ABFE Zones A and V	1	1	1	1	1	1	1	1	1	1	1	11



Table 6-15. Prioritization of New Actions Added to the 2014 Plan

Responsible Agency	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Environmental	Social	Administrative	Agency Champion	Other Community Objectives	Total
Rutgers University - Bloustein School	Create a geospatial dataset for each of the 21 counties that include the IA, PA, and NFIP payouts for each major storm event where data is available, aggregated at the Census Block level	1	1	1	1	1	1	1	1	1	1	1	11
Stockton College - CRC	Laser Scanner	1	1	1	1	0	0	1	0	0	1	0	6
PANYNJ	Teterboro Airport – Perform resilience enhancements to the back-up power system.	1	1	0	1	0	0	0	0	0	0	0	3
PANYNJ	Teterboro Airport – Perform stormwater drainage improvements.	0	1	1	1	0	0	0	0	0	0	0	3
PANYNJ	Newark Airport – Perform resilience enhancements the to back-up power system.	1	1	0	1	0	0	0	0	0	0	0	3
PANYNJ	Newark Airport – Perform resilience enhancements to the back-up power system – City of Newark Pump Station.	0	1	1	1	0	0	0	0	0	0	0	3
PANYNJ	Newark Airport – Perform stormwater drainage at Terminal B.	0	1	1	1	0	0	0	0	0	0	0	3
PANYNJ	Newark Airport – Perform resiliency improvements to airport drainage system (valves).	0	1	1	1	0	0	0	0	0	0	0	3
PANYNJ	Newark Airport – Perform resiliency improvements to airport Peripheral Ditch drainage system.	0	1	0	1	0	0	0	0	1	0	0	3
PANYNJ	Lincoln Tunnel – Perform resiliency of tunnel electrical system for tunnel drainage pumps and ventilation system	1	1	1	1	0	0	0	0	1	0	0	5
PANYNJ	Holland Tunnel – Perform resiliency of tunnel electrical system: Power Service for Drainage Pumps and Ventilation System	1	1	1	1	0	0	0	0	1	0	0	5
PANYNJ	George Washington Bridge – Resiliency of Electrical and System	1	1	0	1	0	0	0	0	0	0	0	3



Table 6-15. Prioritization of New Actions Added to the 2014 Plan

Responsible Agency	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Environmental	Social	Administrative	Agency Champion	Other Community Objectives	Total
PANYNJ	George Washington Bridge – Drainage Improvements for New Jersey Anchorage	0	1	1	1	0	0	0	0	0	0	0	3
PANYNJ	Develop a Port Authority of New York and New Jersey Multi-Hazard Mitigation Plan	0	1	1	1	0	0	0	0	0	0	0	3

Notes:

- ABFE *Advisory Base Flood Elevation*
- CRC *Coastal Research Center*
- FEMA *Federal Emergency Management Agency*
- IA *Individual Assistance*
- LiDAR *Light Detection and Ranging*
- NFIP *National Flood Insurance Program*
- NJBPU *New Jersey Board of Public Utilities*
- NJEDA *New Jersey Economic Development Authority*
- NJDEP *New Jersey Department of Environmental Protection*
- NJDOT *New Jersey Department of Transportation*
- NJOEM *New Jersey Office of Emergency Management*
- NJOHS&P *New Jersey Office of Homeland Security and Preparedness*
- NJWxNet *New Jersey Weather and Climate Network*
- ONJSC *Office of the New Jersey State Climatologist*
- PA *Public Assistance*



6.5 Funding Sources

In addition to identifying and evaluating the State's capabilities to address mitigation, another key component to mitigation is funding. As part of the 2008 and 2011 Plan update processes, the planning team reviewed current sources of federal, State, local, or private funding, and tried to identify other potential sources of mitigation funding. For the 2014 Plan update, the federal and State funding programs that provide funding were reviewed and updated and new additions were made. Table 6-16 and Table 6-17 summarize these funding sources, potential availability, applicability of pre- or post-disaster requirements, and the type of funding that is available. In addition to the sources listed below, www.grants.gov published a report containing brief descriptions and contact information from government, non-government, and corporate sources that may be able to provide disaster recovery assistance to eligible applicants (Grants.gov 2013). Further, the 2011 Silver Jackets Interagency Program Guides identifies additional sources of funding (http://www.nfrmp.us/state/docs/Silver_Jackets_Program_Guide_11.22.10.pdf).



Table 6-16. Funding Sources Available for Mitigation Activities

Funding Source	Description of the Funding Opportunity
FEMA Federal Disaster Mitigation Funding that require an approved Hazard Mitigation Plan	
Flood Mitigation Assistance (FMA)	<p>Availability: Pre-Disaster</p> <p>Description: To implement cost-effective measures that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insured under the National Flood Insurance Program (NFIP).</p> <p>Funding: In fiscal year (FY) 2013, there is \$120 million available in a nationwide competition.</p> <p>The FMA combines the previous Repetitive Flood Claims and Severe Repetitive Loss Grants into one grant program.</p>
Hazard Mitigation Grant Program (HMGP)	<p>Availability: Post-Disaster</p> <p>Description: To provide funds to states, territories, Indian tribal governments, and communities to significantly reduce or permanently eliminate future risk to lives and property from natural hazards. HMGP funds projects in accordance with priorities identified in state, tribal, or local hazard mitigation plans, and enables mitigation measures to be implemented during the recovery from a disaster.</p> <p>Funding: For states with a FEMA-approved Standard State Mitigation Plan, HMGP funds are available based on up to 15% for amounts not more than \$2 billion.</p> <p>An update to HMGP is that FEMA allows increasing the 5% Initiative amount up to 10% for a Presidential major disaster declaration for tornadoes and high winds at the discretion of the grantee. The increased initiative funding can be used for activities that address the unique hazards posed by tornadoes. To qualify for this funding, the grantee must, in its State or Indian Tribal (standard or enhanced) Mitigation Plan or other comprehensive plan, address warning of citizens (ensuring 90% coverage), further the safe room concept in construction or rehabilitation of residences or commercial structures, and address sheltering in mobile home parks. The plan, also, must explain how the grantee will implement an ongoing public education program so that citizens are aware of warning systems and their meaning and the availability of in-home shelter designs. Similar information should be included in the subgrantee’s Local or Indian Tribal Mitigation Plan.</p>
Pre-Disaster Mitigation (PDM)	<p>Availability: Pre-Disaster</p> <p>Description: To provide funds to states, territories, tribal governments, and communities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event. Funding these plans and projects reduces overall risks to the population and structures, while also reducing reliance on funding from actual disaster declarations.</p> <p>Funding: Nationwide competition, total funding available – FY 2013 is \$23,700,000; FY 2012 was \$36 million, FY 2010 was \$24 million, FY 2007 was \$100 million.</p>
Other Federal Grant Programs	
Fire Management Assistance Grant	<p>Availability: Post-Disaster</p> <p>Description: Assistance for the mitigation, management, and control of fires on publicly or privately owned forests or grasslands that threaten such</p>



Table 6-16. Funding Sources Available for Mitigation Activities

Funding Source	Description of the Funding Opportunity
Program	<p>destruction as would constitute a major disaster.</p> <p>Funding: Provides a 75% Federal cost share and the State pay the remaining 25% for actual cost.</p>
Reimbursement for Firefighting on Federal Property	<p>Availability: Post-Disaster</p> <p>Description: Provides reimbursement only for direct costs and losses over and above normal operating costs.</p>
National Dam Safety Program	<p>Availability: Pre-Disaster</p> <p>Description: National Dam Safety Program (NDSP). The NDSP, which is led by FEMA, is a partnership of the states, federal agencies, and other stakeholders to encourage individual and community responsibility for dam safety.</p> <p>The NDSP, which was formally established by the Water Resources and Development Act of 1996, includes:</p> <p>Funding: Grant assistance to the States: Provides vital support for the improvement of the State dam safety programs that regulate most of the 79,500 dams in the United States. Funding available in FY 2011 was \$11 Million.</p>
Land and Water Conservation Fund	<p>Availability: To state, local, and conservation organizations</p> <p>Description: Funding to states for outdoor recreational development, renovation, land acquisition, and planning.</p> <p>Funding: The fund is authorized at \$900 million annually, a level that has been met only twice during the program’s 40-year history. The program is divided into two distinct funding pots: state grants and federal acquisition funds. In fiscal year2005, the federal acquisition pot received \$166 million and the state grants program received \$92.5 million for a total of \$258.5 million. In fiscal year2006, the federal pot received \$114.5 and the state grants received \$30 million. FY 2007 was similar to the year before receiving \$113 million for federal acquisition and \$30 million for state grants.</p>
The Forest Legacy Program	<p>Availability: Participation in Forest Legacy is limited to private forest landowners.</p> <p>Description: Federal program in partnership with states supports efforts to protect environmentally sensitive forest lands. Designed to encourage the protection of privately owned forest lands, Forest Legacy is an entirely voluntary program. To maximize the public benefits it achieves, the program focuses on the acquisition of partial interests in privately owned forest lands. Forest Legacy helps states develop and carry out their forest conservation plans. It encourages and supports acquisition of conservation easements, legally binding agreements transferring a negotiated set of property rights from one party to another, without removing the property from private ownership. Most Forest Legacy Program conservation easements restrict development, require sustainable forestry practices, and protect other values.</p> <p>Funding: To qualify, landowners are required to prepare a multiple resource management plan as part of the conservation easement acquisition. The federal government may fund up to 75% of project costs, with at least 25% coming from private, state, or local sources. In addition to gains associated with the sale or donation of property rights, many landowners also benefit from reduced taxes associated with limits placed on land use.</p>



Table 6-16. Funding Sources Available for Mitigation Activities

Funding Source	Description of the Funding Opportunity
Transportation Trust Fund	<p>Availability: Pre and Post-Disaster</p> <p>Description: Transportation Trust Fund funds grants through a competitive application-based process administered by the Local Aid District Offices.</p> <p>Funding: \$78.75 million in funding was available in fiscal year 2008 by the Municipal Aid Program.</p> <p>Description: County Aid Program- Administer the County Aid Program for road and bridge infrastructure improvements under county jurisdiction. Each County receives an annual formula based allotment that takes into consideration county road lane mileage and population. The County Aid Program is funded through the Transportation Trust Fund and provides funding for eligible costs of projects included in the county’s approved Annual Transportation Program.</p> <p>Funding: \$78.75 million in funding was available in the fiscal year 2008 through the County Aid Program.</p>
Hurricane Sandy Coastal Resiliency Competitive Grant Program	<p>Availability: Post Disaster</p> <p>Description: The program will use competitive grants to award funding for science-based solutions by States, local communities, non-profit organizations and other partners to help restore key habitats and bolster natural systems, enabling these areas to withstand the impact and better protect local communities from future storms.</p> <p>Funding: \$100 million in competitive grants.</p>
Department of Homeland Security Grant Program (HSGP)	<p>Availability: Pre Disaster</p> <p>Description: The Homeland Security Grant Program (HSGP) plays an important role in the implementation of the National Preparedness System by supporting the building, sustainment, and delivery of core capabilities essential to achieving the National Preparedness Goal of a secure and resilient nation. The FY 2013 HSGP supports core capabilities across the five mission area of Prevention, Protection, Mitigation, Response, and Recovery based on allowable cost. HSGP is composed of three interconnected grant programs including the State Homeland Security Program (SHSP), Urban Areas Security Initiative (UASI), and the Operation Stonegarden (OPSG). Together, these grant programs fund a range of preparedness activities, including planning, organization, equipment purchase, training, exercises, and management and administration.</p> <p>Funding: SHSP – total funding available for FY 2013 - \$354,644,123; UASI – total funding available for FY 2013 - \$558,745,566; and OPSG – total funding available in FY 2013 - \$55,000,000.</p>
Emergency Management Performance Grand Program (EMPG)	<p>Availability: Pre Disaster</p> <p>Description: Grants are available to State, local, territorial, and tribal governments in preparing for all hazards. The Federal Government, through the EMPG Program, provides necessary direction, coordination and guidance, and provides necessary assistance, as authorized so that a comprehensive emergency preparedness system exists at all levels for all hazards.</p> <p>Funding: Total funding available in FY 2013: \$332,456,012</p>



Table 6-16. Funding Sources Available for Mitigation Activities

Funding Source	Description of the Funding Opportunity
U.S. Small Business Administration Loan Programs	<p>Availability: Post Disaster</p> <p>Description: Small Business Administration (SBA) provides low-interest disaster loans to homeowners, renters, business of all sizes, and most private nonprofit organizations. SBA disaster loans can be used to repair or replace the following items damaged or destroyed in a declared disaster: real estate, personal property, machinery and equipment, and inventory and business assets.</p> <p>Funding: Homeowners may apply for up to \$200,000 to replace or repair their primary residence. Renters and homeowners may borrow up to \$40,000 to replace or repair personal property-such as clothing, furniture, cars, and appliances – damaged or destroyed in a disaster. Physical disaster loans of up to \$2 million are available to qualified businesses or most private nonprofit organizations. As of October 7, 2013, SBA has approved \$828.5 million in loans to homes and businesses in New Jersey.</p>
Community Development Block Grant – Disaster Recovery (CDBG-DR)	<p>Availability: Post Disaster</p> <p>Description: Disaster Recovery funds are made available to States, units of general local governments, Indian tribes, and Insular areas designated by the President of the United States as a disaster area. These communities must have significant unmet recovery needs and the capacity to carry out a disaster recovery program. Grants are available to rebuild the affected areas and provide crucial seed money to start the recovery process.</p> <p>The State has developed various programs using CDBG-DR funds to help homeowners, renters, businesses, and communities impacted by Superstorm Sandy. For more information on these funding programs, refer to the following table or visit reNewJerseyStronger.org</p> <ul style="list-style-type: none"> • CDBG-DR Homeowner Assistance Programs • CDBG-DR Rental Housing and Renter Programs • CDBG-DR Economic Revitalization • CDBG-DR Support for Governmental Entities • CDBG-DR Supportive Services Programs • CDBG-DR Planning, Oversight, and Monitoring <p>Funding: FY 2013 - \$16 billion to assist recovery from Superstorm Sandy.</p>
U.S. Army Corp of Engineers Flood Plain Management Services Program	<p>Availability: Pre or Post Disaster</p> <p>Description: The Flood Plain Management Services Program provides a full range of technical services and planning guidance that is needed to support effective flood plain management.</p> <p>Funding: None</p>
U.S. Environmental Protection Agency	<p>Availability: Post Disaster</p> <p>Description: The EPA has allocated funding to the State of New Jersey for improvements to wastewater and drinking water treatment facilities impacted by Superstorm Sandy. The State has created programs to maximize this investment by leveraging available funds to offer low interest</p>



Table 6-16. Funding Sources Available for Mitigation Activities

Funding Source	Description of the Funding Opportunity
	<p>loans with opportunities for principal forgiveness. These loans will help fund the repair of Sandy-damaged infrastructure and improve resiliency of the State’s environmental infrastructure. The State has also created the Short-term Statewide Assistance Infrastructure Loan Program (SAIL), which is designed to provide facilities with short-term cash flow assistance for Sandy recovery project expenses that will ultimately be financed through other federal grant programs, including FEMA’s Public Assistance reimbursement program.</p> <p>Funding: \$229 Million to the State of New Jersey for improvements to wastewater and drinking water treatment facilities impacted by Superstorm Sandy.</p>
<p>U.S. Department of Health and Human Services – Social Services Block Grant</p>	<p>Availability: Post Disaster</p> <p>Description: Post-Sandy funding will be applied to support services with a focus on physical and mental health, as well as the recovery needs of children and families.</p> <p>Funding: The U.S. Department of Health and Human Services (HHS) allocated \$226 million to New Jersey as part of the Sandy Supplemental Social Services Block Grant (SSBG).</p>

Sources: FEMA 2013b,c, d, e

Notes:

<i>CDBG-DR</i>	<i>Community Development Block Grant – Disaster Recover</i>	<i>NDSP</i>	<i>National Dam Safety Program</i>
<i>EMPG</i>	<i>Emergency Management Performance Grant Program</i>	<i>NFIP</i>	<i>National Flood Insurance Program</i>
<i>FEMA</i>	<i>Federal Emergency Management Agency</i>	<i>OPSG</i>	<i>Operation Stonegarden</i>
<i>FMA</i>	<i>Flood Mitigation Assistance</i>	<i>PDM</i>	<i>Pre-Disaster Mitigation</i>
<i>FY</i>	<i>Fiscal Year</i>	<i>SBA</i>	<i>Small Business Administration</i>
<i>HHS</i>	<i>U.S. Department of Health and Human Services</i>	<i>SHSP</i>	<i>State Homeland Security Program</i>
<i>HMGP</i>	<i>Hazard Mitigation Grant Program</i>	<i>UASI</i>	<i>Urban Area Security Initiative</i>
<i>HSGP</i>	<i>Homeland Security Grant Program</i>		



Table 6-17. State Grant and Loan Funds

Funding Source	Description of the Funding Opportunity
Environmental Infrastructure Financing Program	<p>Availability: Pre or Post-Disaster</p> <p>Description: Borrowers receive loans in two equal parts: Approximately one half to three quarters comes from a 0-interest State Revolving Fund maintained by the NJDEP. The other portion comes from proceeds of highly rated tax-exempt revenue bonds sold by the Trust. Combining these two funds results in a loan that is 50 to 75% lower than traditional loan rates.</p> <p>Funding: Is available for qualified borrowers.</p>
Pinelands Infrastructure Trust Fund	<p>Availability: Pre or Post-Disaster</p> <p>Description: This program provides funding for infrastructure projects needed to accommodate existing and future needs in the 23 designated Pinelands Regional Growth Areas.</p> <p>Funding: Funding is available for the construction of new collection systems, interceptors, and the expansion/upgrade of wastewater treatment facilities. Projects certified under this program generally receive a grant for 40% of the allowable project costs, and a loan for 20% of the allowable project costs from the Department. Loans for the remaining project costs may also be received from the Trust.</p>
Meadowlands Infrastructure Trust Fund	<p>Availability: Pre or Post-Disaster</p> <p>Description: A regional zoning and planning agency established by an act of New Jersey State Legislature in 1969. Its founding mandates are to protect the delicate balance of nature, to provide for orderly development, and to manage solid waste activities.</p> <p>Funding: Grants are available for stormwater management, updating GIS systems, affordable housing planning, and solid waste disposal for the counties and municipalities that are under this Commission.</p>
New Jersey Green Acres Program	<p>Availability: Pre or Post-Disaster</p> <p>Description: Today, New Jersey has the largest preservation program in the nation for a geographic area of this size. It is financed with Garden State Preservation Trust funds through three partnering agencies: The Green Acres Program, a division of the Department of Environmental Protection to preserve natural lands and recreational parks. The Farmland Preservation Program is administered by the independent State Agriculture Development Committee to acquire the development rights on privately owned farmland. Historic Preservation Program is administered by the independent New Jersey Historic Trust to provide matching grants to save important historic buildings.</p> <p>Funding: Varies</p>



Table 6-17. State Grant and Loan Funds

Funding Source	Description of the Funding Opportunity
New Jersey Small Cities Communities Development Block Grants	<p>Availability: Pre or Post-Disaster</p> <p>Description: Provide funds for economic development, housing rehabilitation, community revitalization, and public facilities designated to benefit people with low and moderate incomes, or to address recent local needs for which no other source of funding is available to non-entitlement counties and municipalities.</p> <p>Funding: Varies</p>
New Jersey Open Space Program	<p>Availability: To counties and municipalities that have passed a tax assessment on property owners to help purchase land in their community.</p> <p>Description: A total of 53 towns and 13 counties collect \$.01 to \$.05 on each \$100 of assessed property value. State law requires that the money go to a dedicated trust fund for open space and parks, farmland development easements, and historic preservation.</p> <p>Funding: Varies based on county tax amount and assessments of property.</p>
New Jersey Conservation Foundation (NJCF)	<p>Availability: Pre or Post-Disaster</p> <p>Description: NJCF is a private, not-for-profit organization. Through acquisition and stewardship, NJCF protects strategic lands, promotes strong land use policies, and forges partnerships to achieve conservation goals. Since 1960, NJCF has protected over 100,000 acres of natural areas and farmland in New Jersey – from the Highlands to the Pine Barrens to the Delaware Bay, from farms to forests to urban and suburban parks.</p> <p>Funding: Provides support through knowing and understanding the many type of grants and programs that exist to help fund land preservation activities.</p>
New Jersey Department of Health	<p>Description: The New Jersey Department of Health is awarding the New Jersey Poison Information and Education System (NJPIES) \$400,000 over the next 2years in Social Services Block Grant funding from the U.S Department of Health and Human Services. The funding will allow NJPIES to continue 24/7 availability of and access to poison intervention specialists via telephone. The grant will also fund the creation of storm-related educational materials and training sessions with local health departments on environmental health hazards, including CO poisoning. The training will be available statewide, but with a focus on coastal and northern counties hardest hit by Superstorm Sandy.</p>
The New Jersey Environmental Infrastructure Financing Program	<p>Availability: Pre or Post-Disaster</p> <p>Description: The New Jersey Environmental Infrastructure Financing Program is a revolving loan program for the construction of wastewater treatment facilities, sludge management systems, combined sewer overflow abatement, stormwater, and other non-point source management projects and to publicly and privately owned drinking water systems for the construction or upgrade of drinking water facilities, transmission and distribution systems, storage facilities, and source development. Funds are made available under the Federal Clean Water and Safe Drinking Water Acts and various State bond acts. The Financing Program is administered by the Municipal Finance and Construction Element (MF&CE), and the New Jersey Environmental Infrastructure Trust (Trust), an independent State financing authority.</p> <p>Funding: Low Interest Loans and a limited amount of loan forgiveness is made available each year. Approximately \$350 million is awarded annually.</p>



Table 6-17. State Grant and Loan Funds

Funding Source	Description of the Funding Opportunity
The Water Pollution Management Element	<p>Availability: Pre or Post-Disaster</p> <p>Description: The Water Pollution Management Element is responsible for protecting New Jersey's surface and ground waters from pollution caused by improperly treated wastewater and its residuals. This is accomplished primarily through the implementation of the New Jersey Pollutant Discharge Elimination System (NJPDES) permit program. This includes publicly owned treatment facilities (e.g. sanitary sewerage plants) and privately owned facilities (e.g. industrial facilities) as well as facilities that discharge stormwater (e.g. municipalities and highway agencies) and stormwater related to development. The NJPDES program also regulates discharges to groundwater (e.g. septic systems) and the proper management of any residuals that are generated as part of the treatment process. The varied ownership of infrastructure components is often a complicating factor in the regulation of these entities (e.g. ownership of a treatment facility by a public entity and sewer mains by a different municipal entity). The total universe of NJPDES permits includes over 7,500 permits.</p> <p>Funding: Low-interest loans and a limited amount of loan forgiveness is made available each year through the New Jersey Environmental Infrastructure Financing Program within the Municipal Finance and Construction Element in the Division of Water Quality.</p>
The Division of Water Supply and Geoscience	<p>Availability: Pre or Post-Disaster</p> <p>Description: The Division of Water Supply and Geoscience works to ensure adequate, reliable, and safe water is available for the future. This goal is accomplished through the regulation of ground and surface water diversions, permitting of wells, permitting of drinking water infrastructure, monitoring of drinking water quality, and technical support for water systems to achieve compliance with all federal and state standards. In addition, Water Supply staff act in a support role during an emergency situation to provide technical assistance, as needed, to re-establish safe and adequate public water supplies.</p> <p>Funding: The Drinking Water State Revolving Fund (DWSRF) program assists water systems in financing the cost of infrastructure through the use of federal and New Jersey Infrastructure Trust funds. Additionally, the Water Supply program provides operator licensing and training support as well as financial assistance through the DWSRF program.</p>
The New Jersey Highlands	<p>Availability: Pre-Disaster</p> <p>Description: The New Jersey Highlands Region represents a 1,343-square-mile area in the northwest part of the State, and in 2001 was established as a Special Resource Area of the State. The New Jersey Highlands Council was established by the legislature in 2004 as part of the Highlands Water and Protection Planning Act and charged with the development and oversight of the Highlands Regional Master Plan (RMP).</p> <p>Funding: RMP grant funding for forest resource and stream corridor protection and management planning includes the identification of restoration, mitigation, and stewardship programming needs and mechanisms.</p>



Table 6-17. State Grant and Loan Funds

Funding Source	Description of the Funding Opportunity
New Jersey Department of Environmental Protection – Flood Control Section	<p>Availability: Pre or Post-Disaster</p> <p>Description: Leads the State's efforts as the State NFIP Coordinator and Community Rating System (CRS) support. In addition, the section's responsibilities include the funding of construction and operation of federal-state-local flood control mitigation projects throughout the State, including the 24-hour operation of the Pompton Lakes Dam Flood Gates. The section has also taken a lead role on the development and adoption of New Jersey Flood Hazard Area mapping, as well as an active partnership with FEMA on their FEMA Map Modernization Program efforts.</p> <p>Funding: Large-scale flood control projects are cost-shared with the US Army Corps of Engineers through an annual state appropriation under the HR-6 Flood Control project budget. Also, \$25 million was appropriated from the "Dam, Lake, Stream, Flood Control, Water Resources Project Bond Act 2003" to finance the costs of State and local flood control projects. Of the 566 total municipalities in New Jersey, 544 participate in the NFIP program; of those 544, 45 also participate in the CRS program. 9 communities with a Class 9 rating (5% premium reduction); 23 with a Class 8 rating (10% premium reduction); 11 with a Class 7 rating (15% premium reduction); and 2 with a Class 6 rating (20% premium reduction). The average savings per policy holder is about \$87.00 per year or a total community savings of about \$9,384,397 per year. The New Jersey Dam Safety program, new state stormwater management requirements, and the development of all-hazard mitigation plans, are some of the efforts at the State level that are available to provide CRS credits for all New Jersey municipalities. Communities are encouraged to adopt freeboard elevation requirements, which also provide CRS credits. Many municipalities in New Jersey are small and lack the professional support to fill out a CRS application, or do not have the flood insurance policy base to make it worth their while. However, NJDEP does reach out to communities during Community Assistance Visits, Community Assistance Contacts, technical assistance contacts, and workshops to promote the CRS program.</p>
Passaic River Basin Flood Advisory Commission	<p>Availability: Pre or Post-Disaster</p> <p>Description: The Advisory Commission's charge is to provide recommendations to the Governor including (but not limited to) expanding and expediting Passaic River floodway property buyouts, prioritizing land acquisition and acquiring natural flood storage areas, operating the Pompton Lake Dam floodgates, clearing river of debris, evaluation of regulatory programs, enhancing public involvement, information and outreach for flood response, and identifying methods to phase out or prevent future development in flood-prone hazard areas.</p> <p>Funding: In 2011, \$350,000 was awarded to Wayne, Pompton Lakes, Pequannock, and Riverdale for stream cleaning. In the future, \$3 million in matching grants will be available to communities in the Passaic River Basin.</p>
New Jersey Department of Law and Public Safety	<p>Availability: Pre or Post-Disaster</p> <p>Description: This Department includes the Office of the Attorney General and the Division of State Police among others. The New Jersey Office of Emergency Management is placed within the Division of State Police.</p> <p>Funding: may be available through the New Jersey Office of Emergency Management (NJOEM), which administers certain grant programs, including mitigation programs. NJOEM does apply for FEMA grants for mitigation projects. (See the State Capabilities Assessment discussed earlier in this section.)</p>



Table 6-17. State Grant and Loan Funds

Funding Source	Description of the Funding Opportunity
New Jersey Department of Transportation (NJDOT)	<p>Availability: Pre or Post-Disaster</p> <p>Description: NJDOT allocates funds to projects and programs through two main capital program documents: the Transportation Capital Program and the Statewide Transportation Improvement Program. The Transportation Capital Program is a document required by State law that allocates federal and State transportation funding for both NJDOT and New Jersey Transit within one State fiscal year. It also includes funds that are allocated to counties and municipalities. The Statewide Transportation Improvement Program (STIP) is required by federal law. It allocates funding over a 10-year period constrained by what are reasonable revenue expectations. It includes NJDOT, New Jersey Transit, and the counties and municipalities. The STIP is compiled from three regional Transportation Improvement Programs (TIP) that are developed in conjunction with New Jersey’s three metropolitan planning organizations (MPO). Each MPO has extensive public involvement activities in preparation for the TIP. A companion document, the Statewide Capital Investment Strategy, lays out capital investment goals for NJDOT, New Jersey Transit, the New Jersey Turnpike Authority, and the South Jersey Transportation Authority. NJDOT programs approximately \$2 billion annually for capital improvements on State and local roads and bridges. The Capital Program is approved as part of the State’s budget.</p> <p>Funding: Funding of the Program is typically federal through the Federal Highway Administration or State through the Transportation Trust Fund.</p>
New Jersey Department of Transportation – Local Aid Program	<p>Availability: Pre or Post-Disaster</p> <p>Description: NJDOT is committed to advancing transportation projects that enhance safety, renew aging infrastructure, and support new transportation opportunities at the county and municipal level. The Transportation Trust Fund and the Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFE-TEA) legislation provide the opportunity for funding assistance to local governments for road, bridge, and other transportation projects. NJDOT has established a number of local aid programs that provide financial support to counties and municipalities for capital improvements to transportation infrastructure.</p> <p>Funding: Annually, local aid programs provide approximately \$350 million in a combination of federal and state transportation trust fund funding. The Transportation Trust Fund alone provides \$175 million in state aid to municipalities and counties for local transportation improvements. Several programs which provide funding to counties and municipalities are supported with federal monies available through the Transportation Equity Act for the 21st Century (TEA 21) legislation. The State funded programs include Bikeway Grants, Local Bridges, Safe Streets and Neighborhoods, and Transit Villages.</p>

Notes:

CRS	Community Rating System	NJCF	New Jersey Conservation Foundation
CO	Carbon Monoxide	NJDEP	New Jersey Department of Environmental Protection
DWSRF	Drinking Water State Revolving Fund	NJDOT	New Jersey Department of Transportation
FEMA	Federal Emergency Management Agency	NJOEM	New Jersey Office of Emergency Management
FY	Fiscal Year	NJPDES	New Jersey Pollutant Discharge Elimination System
GIS	Geographic Information System	NJPIES	New Jersey Poison Information and Education System
MF&CE	Municipal Finance and Construction Element	RMP	Regional Master Plan
MPO	Metropolitan Planning Organizations	SAFE-TEA	Safe, Accountable, Flexible, Efficient Transportation Equity Act
NFIP	National Flood Insurance Program	STIP	Statewide Transportation Improvement Program
NJ	New Jersey	TIP	Transportation Improvement Program