Section 2. Planning Process

2.1 Documentation of the Planning Process

44 CFR 201.4(c)(1): "[The State plan must include a]description of the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how other agencies participated."

The 2014 Plan update was developed and updated in accordance with the planning requirement outlined in Section 404 of the Robert T. Stafford Act as amended by the Disaster Mitigation Act of 2000. This section describes the process used to develop the 2014 Plan update of the State of New Jersey Hazard Mitigation Plan (HMP), in accordance with Chapter 44 of the Code of Federal Regulations (CFR), Sections 201.4(b) and 201.4(c) of the Standard State Hazard Mitigation Plan criteria. The following sections describe how the 2014 Plan update was prepared, which agencies participated in the planning process, how each section of the Plan was reviewed and analyzed, and how each section was revised.

2.1.1 Description of the Planning Process

In 2011, the State of New Jersey updated the 2008 edition of the State HMP as per Federal Emergency Management Agency (FEMA) regulations. Subject matter experts (SME) were solicited within state government for specific information regarding hazards, risks, capabilities, and strategies. The Mitigation Core Team (MCT) and State Hazard Mitigation Team (SHMT) members reviewed the mitigation strategies identified in the 2008 Plan, and provided feedback on progress towards achieving the goals and completing the actions. SHMT members provided interim reviews of draft sections appropriate throughout the update process.

As per the 2011 Plan maintenance procedures, a technical update was completed in April 2012 by the New Jersey Office of Emergency Management (NJOEM) Mitigation Unit six months after the 2011 Plan was approved by FEMA. No changes in State policy or requirements were included in the update. In summary, the update reorganized and reformatted the Plan to follow the ***44 CFR Section 201.4***, included updated information on FEMA programs and grant opportunities, and updated additional technical information throughout. The 2012 update was not submitted to FEMA for regulatory review.

On November 1, 2013 NJOEM submitted an amendment to the 2011 Plan to FEMA Region II. It proposes to amend the Plan to add the energy and retail fuel improvements for the State of New Jersey, which will be funded and implemented through the Energy Allocation Initiative. The amendment is included in Appendix E.

Since the 2011 Plan was submitted to FEMA for review and approval, New Jersey has experienced seven Federal Disaster Declarations, as listed in Table 2-1, one of which has been the most severe the State has experienced in recent history. This plan update process was occurring at the same time as Superstorm Sandy, the second costliest hurricane in the country (Hurricane Sandy, DR-4086). Please refer to Section 5 (Risk Assessment) and Appendix D for additional details on each disaster declaration.

Table 2-1. Federal Disaster Declarations Since the 2011 Plan

Disaster Number	Incident Period	Disaster Type
DR-4086	10/26/2012 - 11/8/2012	Hurricane Sandy
DR-4070	6/30/2012	Severe Storms and Straight-Line Winds
DR-4048	10/29/2011	Severe Storm
DR-4039	9/28/2011 - 10/6/2011	Remnants of Tropical Storm Lee
DR-4033	8/13/2011 - 8/15/2011	Severe Storms and Flooding
DR-4021	8/27/2011 - 9/5/2011	Hurricane Irene
DR-1954	12/26/2010 - 12/27/2010	Severe Winter Storm and Snowstorm

Source: FEMA 2013

Highlights of the 2014 Plan update include:

- Comprehensive review and revision of entire plan by MCT, SHMT and Cross-Agency Leadership Team
- Reorganization to be more readable and user-friendly while following CFR and Plan Review Tool elements
- Consultation with FEMA throughout update process
- Extensive interagency and academia outreach
- Enhanced risk assessment, technical data, and maps
- More robust plan maintenance strategy

In summary, the MCT met on a monthly basis to update and rewrite the Plan. The SHMT met 10 times during the course of the plan update (in person or via conference call) and was regularly updated post-MCT meetings via the SharePoint site or email correspondence. The MCT was present at all SHMT meetings. At all SHMT meetings, the SHMT was provided an overview and progress update of the plan development. The newly established Cross-Agency Leadership Team consisting of representatives of the Governor's Office, DEP and NJOEM (agencies on the SHMT) conducted a high-level State agency review of the final draft Plan. All documentation of meeting notifications, invitee lists, attendance records, and meeting summaries can be found in Appendix F (Planning Process Documentation). The roles of the MCT and SHMT are discussed further below. FEMA was consulted throughout the entire planning process.

Mitigation Core Team

For the 2014 Plan update, the Plan Development Committee was not maintained. In its place, NJOEM contracted a planning consultant to facilitate and lead the planning process with the MCT, SHMT and Cross-Agency Leadership Team. In December 2012, the MCT membership was expanded and tasked with leading the development of the plan in conjunction with the State Hazard Mitigation Officer. The agencies represented on the MCT are listed below. Appendix G presents in more detail the responsibilities of each member outlined for the 2014 Plan update process.

- New Jersey Office of Emergency Management (NJOEM) – Mitigation and Recovery
- New Jersey Department of State - Office for Planning Advocacy (NJDOS - OPA)
- New Jersey Office of the Attorney General (NJOAG)
- New Jersey Department of Environmental Protection (NJDEP)
    - Flood Control
    - Geological and Water Survey (NJGWS)

  - Forest Fire Service
- New Jersey Department of the Treasury
- New Jersey Department of Transportation (NJDOT)
- New Jersey Office of the State Climatologist

A sub group of the MCT consisting of the NJOEM, NJOPA and NJDEP was created to refine the plan maintenance strategy. This subgroup then reported back to the MCT on their recommendations. For the draft plan review, the MCT identified SMEs as first tier reviewers of the plan. These lead agency reviewers are listed in Table 2-2 below.

Table 2-2. Lead Agency Plan Reviewers

Section	Subject Matter Experts
1. Introduction	NJOEM
2. Planning Process	NJDOS-OPA and NJOEM
3. Coordination of Local Planning	NJOEM
4. State Profile	NJOPA
5. Risk Assessment	
Flood, Dam Failure	NJDEP
Earthquake, Geologic Hazards	NJDEP
Drought, Severe Weather, Hurricane, Winter, Nor'Easter	Office of the State Climatologist, NJDEP
Coastal Erosion	NJDEP, Stockton College
Wildfire	NJ Forest Fire Service
Animal Disease Events, Crop Failure, Fishing Failure	Department of Agriculture , NJDEP
Civil Unrest, Terrorism, Cyber Attack, Economic Collapse	NJOEM
Hazardous Substances	NJDEP
Power Outages	BPU, NJDEP
Pandemic	NJDOH, NJDEP
Nuclear	NJDOH, NJOEM, NJDEP
6. Mitigation Strategy	NJOEM, NJOPA
7. Plan Maintenance	NJOEM
8. Severe Repetitive Loss Strategy	NJ DEP
9. Consequence Analysis	NJOEM
10. Plan Adoption	NJOEM
Executive Summary, Appendices, Annexes	NJOEM
Appendices	NJOEM

Notes:

BPU	*NJ Board of Public Utilities*	*NJDEP*	*NJ Department of Environmental Protection*
NJDOH	*NJ Department of Health*	*NJOEM*	*NJ Office of Emergency Management*
NJ	*New Jersey*	*NJOPA*	*NJ Office of Planning Advocacy*

Once the MCT review was complete, the draft plan sections were reviewed by all MCT and SHMT members for comment before being sent to the Cross-Agency Leadership Team for final review and approval. As per the Governor's Office, the Cross-Agency Leadership Team was responsible with conducting a high-level review of the final draft Plan before submission to FEMA.

State Hazard Mitigation Team

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

SHMT. The SHMT operates under Executive Order #115 [Florio] (Appendix B) with responsibilities that include, but are not limited to, the following:

- Identifying hazards, monitoring changes in hazard vulnerability, and implementing measures for reducing potential damage by providing a mechanism for follow-up activities crucial to the successful implementation of team recommendations.
- Developing and maintaining a comprehensive state HMP for the reduction of natural hazards.
- Promoting public awareness of risks associated with known hazards and preparedness among residents of the State.
- Serving as an advisory group to the Governor's Advisory Council on Emergency Services (52:14E-4) and preparing post-disaster hazard mitigation recommendations for all applications for assistance.
- Investigating and recommending cost-effective hazard mitigation opportunities to the NJOEM and the Governor's Advisory Council on Emergency Services as part of any disaster recovery effort.
- Executive Order #115 identifies the following agencies on the SHMT all of which had representation for the 2014 Plan update:
    - New Jersey Office of Emergency Management
    - New Jersey Office of the Governor
    - New Jersey Department of Environmental Protection
    - New Jersey Department of Community Affairs
    - New Jersey Department of Banking and Insurance
    - New Jersey Department of the Treasury
    - New Jersey Department of Education
    - New Jersey Department of State
    - New Jersey Board of Public Utilities
    - New Jersey Department of Transportation
    - New Jersey Office of the Attorney General
    - New Jersey Office of Homeland Security and Preparedness

The SHMT also included additional agencies not identified in Executive Order #115. Table 2-3 summarizes the MCT and SHMT participants. Their roles and responsibilities continue to be discussed throughout Section 2 and in Appendix F.

Table 2-3. MCT and SHMT Participants

Entity	MCT	SHMT
State Department		
Department of Agriculture		X
Department of Banking and Insurance*	X	X
Department of Community Affairs*	X	X
Department of Education*		X
Department of Environmental Protection*	X	X
Department of State (Office for Planning Advocacy)*	X	X
Office of the Attorney General */Department of Law Public Safety	X	X
Department of Transportation*	X	X
Department of Treasury*	X	X
State Agency		
Board of Public Utilities*		X

Entity	MCT	SHMT
Office of Emergency Management*	X	X
Office of Information Technology	X	X
Office of the Governor*	X	
Governor's Office of Rebuilding and Recovery (GORR)		X
Office of Homeland Security and Preparedness*		X
State Police	X	X
Academia		
Rutgers – Office of the State Climatologist	X	X

Note:
**Identified in Executive Order #115*
MCT Mitigation Core Team
SHMT State Hazard Mitigation Team

The SHMT scheduled meeting dates from December 2012 to April 2014 are:

- December 12, 2012
- January16, 2013
- May 8, 2013
- August 14, 2013
- September 24, 2013
- January 22, 2014
- April 9, 2014

The SHMT met at the major milestones during the planning process. For the 2014 Plan update, the SHMT kick-off meeting was held on December 12, 2012 and met again on January 2013 to discuss plan development. Due to Superstorm Sandy-related responsibilities and agency tasks, the SHMT did not meet in May or August 2013. On September 24, 2013, the SHMT met and was provided a detailed update of the planning process, as well as the preliminary results of the vulnerability assessment and loss estimation from Superstorm Sandy. In addition, goals and objectives and a plan maintenance strategy were discussed. Further, this meeting provided a workshop segment to assist the SHMT with how to update their 2011 mitigation strategies and develop and prioritize new mitigation actions. The SHMT was invited to bi-monthly conference calls through plan completion.

When the draft Plan was completed in November 2013, each member of the MCT and other identified subject matter experts received the draft Plan via email requesting their review and comment on the document. In December 2013, the entire draft Plan was made available to the SHMT via the SharePoint site and email, depending on individual needs. The SHMT was advised to send any comments on a particular section to the identified lead reviewer for that respective section (refer to Table 2-2). The lead reviewers were responsible for compiling, reviewing and approving comments received on their responsible section(s). These comments were provided to the planning consultant and all SHMT comments received were incorporated into the final draft Plan.

Cross-Agency Leadership Team

For the 2014 Plan update, the Governor's Office established the Cross-Agency Leadership Team consisting of representatives of the Governor's Office, NJDEP and NJOEM to conduct a high-level review of the Plan. These agencies are also represented on the SHMT.

In January, February and March 2014, the final draft Plan was reviewed by the Cross-Agency Leadership Team. Once approval was obtained from the Team, the final Plan was formally submitted to FEMA for review and made available to the public for comment.

Upon the FEMA Regional Director's written acknowledgment to the Governor that the New Jersey State HMP update has been approved, the Plan will be distributed to the SHMT and to the Governor's Advisory Council on Emergency Services, and will be made available to interested parties via the NJOEM web site, and by request to the State Hazard Mitigation Officer. NJOEM will coordinate distribution of the updated HMP to county and local emergency management officials and other appropriate organizations.

2.1.2 Meetings and Workshops

As noted, the MCT and SHMT met numerous times (in-person or teleconference) during the development of the 2014 Plan Update. Resources relied on during this planning process include the following:

- Emergency Management Accreditation Program (EMAP)
- Federal Emergency Management Agency (FEMA)
- Governor's Office of Rebuilding and Recovery (GORR)
- Mitigation Core Team (MCT)
- New Jersey Board of Public Utilities (NJBPU)
- New Jersey Department of Community Affairs (NJDCA)
- New Jersey Department of Environmental Protection (NJDEP)
- New Jersey Department of Human Services (NJDHS)
- New Jersey Department of Education (NJDOE)
- New Jersey Department of Transportation (NJDOT)
- New Jersey Department of Treasury
- New Jersey Forest Fire Service (NJFFS)
- New Jersey Geological and Water Survey (NJGWS)
- New Jersey Office of Attorney General (NJOAG)
- New Jersey Office of Emergency Management (NJOEM)
- New Jersey Office of Management and Budget (NJOMB)
- New Jersey Office of Planning Advocacy (NJOPA)
- New Jersey State Police (NJSP)
- Regional Operations Intelligence Center (ROIC)
- Rutgers University
- State Hazard Mitigation Team (SHMT)
- State Climatologist's Office
- Richard Stockton College of New Jersey
- Tetra Tech (Plan update consultant)

Commencing December 12, 2012 and thoroughout the planning process until the final document was forwarded to FEMA for their review, greater than 40 cross agency meetings and conference calls took place. This alone does not reflect all planning activities conducted by individuals and agencies throughout the planning process. In addition to these meetings, there was a great deal of communication between MCT, SHMT, State agencies, SMEs, and academia through email and by telephone.

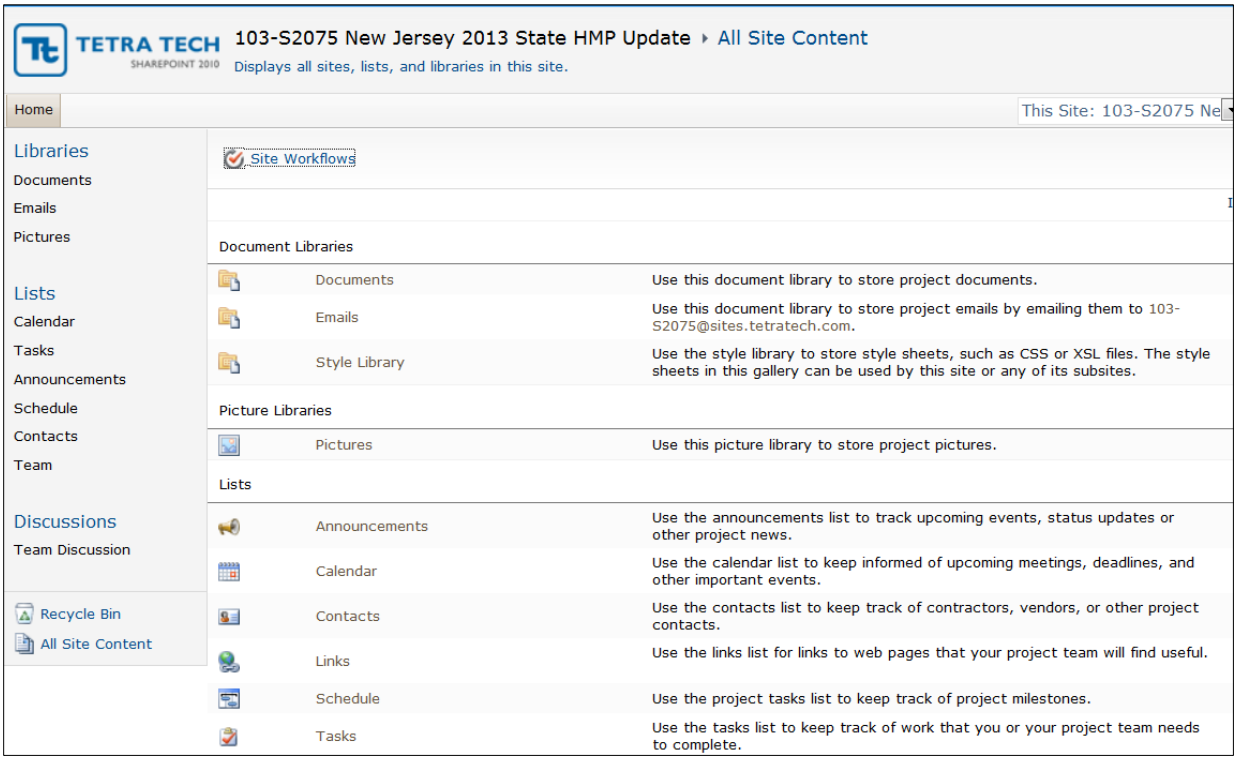
2.2 Coordination Among Agencies

44 CFR 201.4(b): "The [State]mitigation planning process should include coordination with other State agencies, appropriate Federal agencies, interested groups, and …"

Throughout the development of the 2014 Plan update, the NJOEM Mitigation Unit, the State Hazard Mitigation Officer, members of the SHMT, MCT, and the planning consultant reached out to numerous agencies and academic institutions. This outreach was done to encourage participation in support of the 2014 Plan update as well as to educate participants about the Plan's uses and content. A large array of stakeholder involvement during the planning process was considered a vital element to the success in developing a usable and FEMA-compliant plan. All potential participants were fully engaged in the recovery phase of Superstorm Sandy. Traditional agency participants were sought from state and federal agencies and SMEs across New Jersey. These participants provided critical input to each step of the Plan update. They shared inventories of State facilities, shared database layers identifying risk to structures from various hazards, participated in the refinement of the 2014 mitigation goals, and helped develop the 2014 mitigation actions.

The 2014 Plan update consisted of more than 70 participants who were invited to participate in the planning process. Most notably, the GORR provided guidance and assistance with coordination among state agencies as they were the lead for the recovery efforts after Superstorm Sandy. Clear lines of communication to high level decision makers had already been established by the GORR, and these lines continued to be utilized when needed for the Plan update. All planning partners were invited to and convened at planning meetings, participated in conference calls, met with the planning consultant and provided comments throughout the Plan update process. Communication was conducted through email and a secure SharePoint project site where documents and planning templates were posted for review by plan participants and NJOEM Mitigation Unit staff. The planning consultant established this dedicated SharePoint website for efficient communication and document dissemination (refer to Figure 2-1 below). Some documents were not intended to be public, so access was restricted via user name and password.

Figure 2-1. Screenshot of the SharePoint Website



2.2.1 Coordination with FEMA Region II and Other Federal Agencies

FEMA Region II worked closely with the NJOEM, MCT, SHMT, and the planning consultant to facilitate completion of this plan through on-going guidance and review as it was developed and updated. Conversation, guidance, and coordination between FEMA program managers and NJOEM Mitigation Unit staff occurs on a continual basis. Training opportunities are made available to NJOEM in the wake of a disaster as well as upon any request from the State Hazard Mitigation Officer. Coordinated FEMA/NJOEM workshops throughout the year and after federally declared disasters are conducted when requested by the state or recommended by FEMA Region II. Close coordination continues to exist between FEMA and NJOEM in the wake of Superstorm Sandy. FEMA Region II has supported NJOEM with regard to county hazard mitigation plan updates by conducting outreach to all counties which are eligible to receive Hazard Mitigation Grant Program (HMGP) funds to update their current plan. FEMA Region II has also supported all current funded hazard mitigation plan update planning efforts by promoting new FEMA guidance at workshops in those counties.

Routine and formal communications continue to take place between State personnel and personnel from FEMA and other federal agencies closely associated with the planning, regulatory, and investment activities of state agencies. The Joint Field Office established as a result of Superstorm Sandy ensured a venue for communication and coordination between Federal and State agencies. For example, the National Oceanic and Atmospheric Administration (NOAA), the United States Army Corps of Engineers (USACE), and United States Environmental Protection Agency (USEPA) typically oversee or implement programs through the New Jersey Department of Environmental Protection (NJDEP), which in turn relate Federal opportunities and constraints regarding potential natural hazard mitigation efforts for the State Hazard Mitigation Plan through its representatives on the SHMT. The New Jersey Department of Transportation (NJDOT) addresses natural hazard mitigation issues in the course of its coordination of policies, plans, and projects with agencies within

and associated with the United States Department of Transportation. Federal land holding agencies in New Jersey, such as the Department of Defense, the National Park Service, and Fish and Wildlife Service, actively cooperate in mitigation planning, funding, and resource sharing in fuel reduction and wildfire suppression activities on and around their properties. The United States Forest Service is a major provider of funding, training, and standards for all wildfire programs in New Jersey. FEMA requires all municipalities to develop and adopt natural hazard mitigation plans to be eligible for a range of mitigation assistance and grants. Significant funding assistance has been provided to every county in New Jersey from FEMA to develop and update hazard mitigation plans. Additional information regarding the preparation of local hazard mitigation plans in New Jersey is provided in Section 3 (Coordination of Local Planning) of this update.

2.2.2 Coordination with State Agencies and Academia

This planning effort was undertaken by representatives of key State departments and agencies involved in preparing for, responding to, recovering from, and mitigating natural hazards. These entities directly and indirectly participated in the development of the 2014 Plan update. As discussed above, members of the MCT and SHMT attended meetings, participated in conference calls and were involved in all facets of the planning process and plan development. In addition, SMEs across the State were consulted to discuss best available data and methodologies relevant to the hazards of concern. Outreach was also conducted to SMEs to discuss their critical facility data for the Plan's vulnerability assessment. Further, representatives from other State departments and agencies were contacted for additional information and to review portions of the draft plan. Table 2-4 below summarizes the State departments and agencies that contributed to the 2014 Plan update.

Table 2-4. Summary of Plan Participants

Entity	MCT	SHMT	SME	Cross-Agency Leadership Team	Information Requested
State Entity					
Department of Agriculture		X	X		X
Department of Banking and Insurance	X	X	X		X
Department of Community Affairs	X	X	X		X
Department of Corrections					X
Department of Education		X			X
Department of Environmental Protection	X	X	X	X	X
Department of Health			X		X
Department of Human Services			X		X
Department Military & Veterans Affairs					X
Department of State (Office for Planning Advocacy)	X	X	X		X
Office of the Attorney General /Department of Law Public Safety	X	X	X		X
Department of Transportation	X	X	X		X
Department of Treasury / Office of Management and Budget	X	X	X		X
State Agency					
Board of Public Utilities		X	X		X

Entity	MCT	SHMT	SME	Cross-Agency Leadership Team	Information Requested
Delaware River Basin Commission		X			X
Office of Emergency Management	X	X	X	X	X
Office of Information Technology	X	X	X		X
Environmental Infrastructure Trust					X
Office of the Governor	X		X		X
Governor's Office of Rebuilding and Recovery (GORR)			X	X	X
Highlands Council					X
Office of Homeland Security and Preparedness		X	X		X
Meadowlands Commission					X
Passaic Valley Sewerage Commission					X
Pinelands Commission					X
State Police	X	X	X		X
New Jersey Transit			X		X
Port Authority of New York/New Jersey					X
Garden State Preservation Trust					X
Meadowlands Commission					X
Academia					
Rutgers – Office of the State Climatologist	X	X	X		X
Rutgers – Edward J. Bloustein School					X
The Richard Stockton College – Coastal Research Center			X		X
Rowan University					X
Stevens Institute of Technology					X
Jacques Cousteau National Estuarine Research Reserve					X

Notes:
MCT Mitigation Core Team
SHMT State Hazard Mitigation Team
SME Subject matter expert

Each participating agency identified mitigation capabilities, support programs and opportunities, and subsequently discussed revisions to the plan as required by FEMA. Each of the State agencies contributed data and analytical information to the Plan (including the hazard and vulnerability analysis and spatial data), provided draft narrative for inclusion in the Plan, assisted in development and selection of mitigation strategies, reviewed all drafts of all sections of the Plan, and, through discussions at meetings, provided other relevant information on their subject areas of expertise. Plans and programs provided by or through state agencies for hazard mitigation measures and funding opportunities are discussed throughout this Plan. All State agencies were notified by NJOEM via email that the draft Plan update was available for review.

2.2.3 Coordination with Other Interested Groups

In addition to its collaborative work with other State agencies and FEMA, NJOEM and NJDEP work closely with various organizations that address mitigation on a regional level. Members of the SHMT participate in the New Jersey Association for Floodplain Management Organization and the Delaware River Basin Commission (DRBC). Table 2-5 lists the various organizations that NJOEM engages with on issues of hazards and hazard mitigation. Those organizations that are not directly represented on the MCT and the SHMT were requested to provide documentation of their capabilities and will be notified when the plan is available for review. Completed capability assessments can be found in Appendix G.

Table 2-5. Organizations with Ongoing Mitigation Collaboration

Organization	Mission and Membership
Passaic River Basin Flood Advisory Commission	Governor Chris Christie created the Passaic River Basin Flood Advisory Commission by Executive Order 23 on April 23, 2010, following the severe Nor'Easter of March 12 to 15, 2010, and the subsequent flooding of the Central Passaic River basin. 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, evaluating 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. In 2011, the Commission released 15 recommendations to minimize the impact of flooding in the Passaic River Basin. These recommendations are monitored and progress-to-date reports are updated on the Commission website. More information can be found at: http://www.nj.gov/dep/passaicriver/
U.S. Army Corps of Engineers (USACE) "Silver Jackets" Program	Silver Jackets, developed by the USACE, is the state-level implementation program for the National Flood Risk Management Program. The program's goals are to leverage information and resources of 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. The New Jersey team, whose organizational meeting was held in June 2010, includes representatives from FEMA and USACE, the New Jersey State Hazard Mitigation Officer, and the State National Flood Insurance Program coordinator, who serve as standing members and lead facilitators. The goal of the program will be to foster relationships where they do not exist, strengthen relationships that need improvement, and supplement and expand already successful teams. More information can be found at: http://www.nfrmp.us/state/factNewJersey.cfm
FEMA Portfolio Management Program	Portfolio Management is a dynamic process for states that enables timely and informed decision-making through the use of consistent data, effective tools, and clear priorities. Effective Portfolio Management provides the right information to the right people at the right time to inform mitigation decisions. Portfolio Management may be viewed conceptually as a method to support the achievement of mitigation goals and objectives identified in the State Hazard Mitigation Plan. This tool is to assist coordination between NJOEM and FEMA.
Delaware River Basin Commission	The Delaware River Basin Commission (DRBC) was created in 1961 by a federal-interstate compact. The DRBC is a water resource agency with authority to regulate, plan and coordinate management of the water resources of the Delaware Basin. The DRBC's members are the governors of New York, New Jersey, Pennsylvania and Delaware and a federal member appointed by the President. Since 1997, the federal member has been the North Atlantic Division Commander of the USACE, based in Brooklyn, New York. Each commissioner has one vote of equal power with a majority vote needed to decide most issues. Unanimity is required for votes on the annual budget and drought declarations. The DRBC holds business meetings and hearings on policy matters and water resource projects under regulatory review. These sessions, along with meetings of the commission's various advisory committees, including their Flood Advisory Committee, are open to the public. DRBC's Flood Advisory Committee was established in 1999.The committee has since served to coordinate and leverage federal, state and local agencies efforts to improve the basin's flood warning system and mitigate flood losses. For membership and contact information see the DRBC web site at: http://www.state.nj.us/drbc/

Organization	Mission and Membership
Delaware River Basin Interstate Flood Mitigation Task Force	The Delaware River Basin Interstate Flood Mitigation Task Force was assembled in October 2006 at the request of the governors of the four basin states (New York, New Jersey, Pennsylvania, and Delaware). The Task Force last met on December 15, 2009. For additional information, please visit: http://www.nj.gov/drbc/programs/flood/
New Jersey League of Municipalities	New Jersey State League of Municipalities is a voluntary association created to help communities do a better job of self-government through pooling information resources and brain power. Authorized by state statute since 1915, it has been serving local officials throughout the Garden State. All 565 municipalities are members of the League. Over 560 mayors and 13,000 elected and appointed officials of member municipalities are entitled to all of the services and privileges of the League. The League supports mitigation throughout New Jersey by hosting subject matter expert panel discussions and information sharing at the annual League conference in Atlantic City. For membership and contact information see the League web site at: www.njslom.org
New Jersey Association for Floodplain Management	The New Jersey Association for Floodplain Management (NJAFM) is dedicated to reducing loss of life and property damage resulting from floods and promoting sound floodplain management at all levels of government. NJAFM is a statewide organization with over 250 active members. The goals of NJAFM are to heighten awareness of flood risk, provide education, promote mitigation and improve communication to protect public safety, property and the economy. For additional information about NJAFM please visit: http://www.njafm.org/
New Jersey Pinelands Commission	The Mission of the New Jersey Pinelands Commission is to preserve, protect, and enhance the natural and cultural resources of the Pinelands National Reserve, and to encourage compatible economic and other human activities consistent with that purpose. The Pinelands Protection Program is a regional land-use program which protects natural resources through various planning and zoning measures. The Pinelands Commission has pioneered many smart-growth planning concepts, such as watershed management, transfer of development rights, timed growth and conservation planning, long before they received widespread acceptance. The Pinelands Commission's Office of Land Use and Technology Programs is responsible for a wide range of planning activities critical to the successful implementation of the Pinelands Comprehensive Management Plan (CMP). Among the many planning functions of the Pinelands Commission, some key responsibilities include: • reviewing and certifying all municipal zoning and land-use ordinances and master plans for consistency with the CMP; • reviewing water supply planning activities and water quality management plans; • conducting geographic spatial analysis through computer mapping; • protecting cultural and historic resources through archeological surveys and reviews; • implementing the comprehensive plans for personal communication services and cellular towers; • supporting permanent land protection efforts, including state land acquisition, farmland preservation, the Limited Practical Use Land Acquisition Program, and the Pinelands Development Credit Program; and • administering the Pinelands Long-Term Economic Monitoring Program to continuously gauge the health of the Pinelands economy. For additional information visit: http://www.state.nj.us/pinelands/about/
Delaware and Raritan Canal Commission	The Delaware and Raritan Canal Commission was established in October 1974, when Governor Brendan Byrne signed the Delaware and Raritan Canal State Park Law. The Commission was created to accomplish three main tasks: (1) to review and approve, reject, or modify any action by the State in the Canal Park, or any permit for action in the park; (2) to undertake planning for the development of the Canal Park; and (3) to prepare and administer a land use regulatory program that will protect the Canal Park from the harmful impacts of new development in central New Jersey. For membership and contact information see the Delaware and Raritan Canal Commission web site at: http://www.dandrcanal.com/drcc/
Jacques Cousteau National Estuarine Research Reserve's Coastal Training Program	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. The program works with local communities and counties to understand coastal processes/environmental issues and provides science-based information to aid in the decision making process. Several on-line tools are available to aid with mitigation

Organization	Mission and Membership
	planning. For additional information visit: http://www.jcnerr.org/education/coastaltraining/index.html
Stevens Institute of Technology - Coastal Engineering Research Laboratory	Stevens Institute of Technology - Coastal Engineering Research Laboratory conducts applied coastal research, engineering, and modeling. This research center conducts fundamental and applied research on the design, implementation, and monitoring of shore protection structures, systems, and beach fill projects. Stevens research staff are funded through the NJ State Shore Protection Fund to work with NJDEP and coastal municipalities to develop sustainable and resilient coastal protection strategies that enhance the natural environment while providing required protection from coastal storm events. For additional information visit: http://archive.stevens.edu/ses/cms/CERL.html
Richard Stockton College - Coastal Research Center	The Richard Stockton College Coastal Research Center (CRC) began in 1981 to assist local municipalities with coastal environmental issues related to recurring storm damage and shoreline retreat. Since then the CRC has been working on shoreline monitoring and assessment programs with the State of New Jersey and several municipalities in New Jersey. The CRC has also been a resource for geotechnical data working on numerous projects with federal, state, and municipal governments. With over 20 years of experience, the CRC has grown into an exemplary organization known for coastal zone management. The CRC's continuing mission is to monitor and assess New Jersey's coastal zone resources. For additional information visit: http://intraweb.stockton.edu/eyos/page.cfm?siteID=149&pageID=1
Rutgers Climate Institute	The Rutgers Climate Institute is a university-wide effort to address one of the most important issues of our time through research, education and outreach. The Institute draws upon many departments at Rutgers by facilitating collaboration across a broad range of disciplines in the natural, social and policy sciences. For additional information visit: http://climatechange.rutgers.edu/
NJ Highlands Council Planning and Science Division	The Highlands Region represents a 1,343 square mile area in the northwest part of the State. In 2001, the Highlands was established as a Special Resource Area of the State. The NJ 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). The NJ Highlands Council RMP area includes lands within portions of seven counties and includes 88 municipalities. The Highlands Region serves as a vital source of drinking water for the State that is increasingly at risk of being overdeveloped. In 2002, the U.S. Forest Service Study Update indicated the region experienced an 11% increase in population between 1990 and 2001 and continued development is threatening the region's significant natural resources and the state's drinking water supply. While growth management efforts by individual municipalities continue under the Municipal Land Use Law, the state legislature determined that a coordinated regional effort is necessary. For additional information visit: www.highlands.state.nj.us
Edward J. Bloustein School at Rutgers University	The School serves as an intellectual focal point at Rutgers University for the examination of societal problems and solutions. Research undertakings are governed by a strong commitment to quality through the use of sound social science theory and methods and to full dissemination of results and peer review of findings. Research is carried out on a wide variety of challenging topics to include flooding, damage assessments, LIDAR and data sources/storage and evacuation planning. Specialized centers, established by the University's Board of Governors, carry out large-scale projects and are supported by external funding. The centers support the educational and public-service mission by focusing research in the substantive areas of the School's strength and by supporting students, faculty, and staff in those areas. For additional information visit: http://policy.rutgers.edu/
Rowan University, Geospatial Research Laboratory	The Geospatial Research Laboratory is the GIS and Planning research unit in the Department of Geography and Environment at Rowan University. The Geospatial Research Laboratory conducts research on a myriad of geospatial topics, primarily land use development patterns, impervious surface trading, watershed quality analysis, and interactive web-based mapping. NJ MAP, a current project, is a publicly accessible, municipally-focused portal that takes a thematic approach to data visualization. NJ MAP is intended to serve municipal stakeholders involved environmental, land use, and sustainability decision making. Intended users include Sustainable Jersey Green Teams, municipal planning boards, environmental commissions, land trusts, watershed organizations, and concerned citizens among others. The NJ MAP vision is to

Organization	Mission and Membership
	make statewide GIS data relatable and easy to understand at the local level. For additional information visit: http://gis.rowan.edu/labprojects/
Port Authority of New York and New Jersey	The Port Authority of New York& New Jersey builds, operates, and maintains critical transportation and trade assets. Its network of aviation, rail, surface transportation, and seaport facilities annually moves millions of people and transports vital cargo throughout the New York/New Jersey region.
New Jersey Forest Fire Service	The New Jersey Forest Fire Service is responsible for protecting life, property and the state's natural resources from wildfire. They offer various programs and activities directed at reducing the number of incidences of wildfire, including: public education and awareness, law enforcement, and engineering. Practices such as the reduction of fuel hazards (fuels management) or community planning. These efforts include: community outreach with Smokey bear, posters, signs, and public service advertisements; recreational and agricultural open burning permitting and enforcement; hazardous fuel reduction planning and implementation using prescribed burning and mechanical thinning; road and firebreak maintenance programs; wildfire training to cooperating agencies; wildfire prevention education programs to the public; and a Community Wildfire Hazard Mitigation Assistance Grant Program for local communities. Additionally, the Forest Fire Service maintains agreements with other federal, state, county and municipal agencies regarding all facets of wildfire management. The Protection programs will assist in improving wildfire protection and preparedness capabilities, increasing community wildfire awareness and education, and provide assistance to local fire agencies. Members of the Fire Service also serve on the SHMT. For additional information visit: www.NJWILDFIRE.org

CMP *Pinelands Comprehensive Management Plan*
CRC *Richard Stockton College Coastal Research Center*
DRBC *Delaware River Basin Commission*
FEMA *Federal Emergency Management Agency*
NJAFM *New Jersey Association for Floodplain Management*
NJOEM *New Jersey Office of Emergency Management*
RMP *Highlands Regional Master Plan*
SHMT *State Hazard Management Team*
USACE *U.S. Army Corps of Engineering*

New Jersey County Offices of Emergency Management

As noted earlier, the planning consultant presented at the County Coordinators meeting in August 2013, to provide information on the 2014 Plan update. Each of the New Jersey County Offices of Emergency Management were provided an opportunity to provide feedback and suggestions via an on-line survey. Of the nine responses, all mentioned that the natural hazards that pose the most risk to their county include: flood, wind and snow.

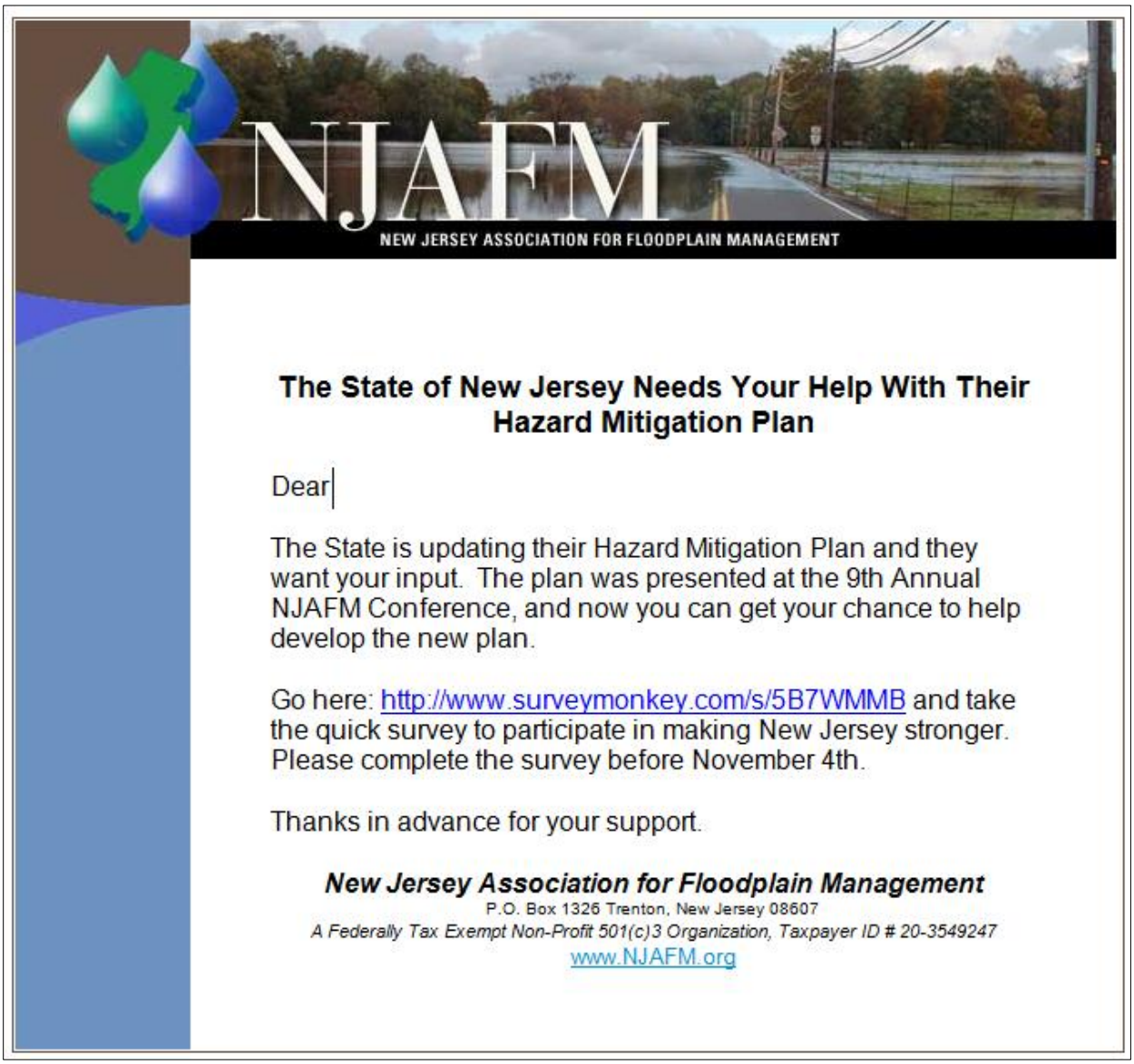
New Jersey Association for Floodplain Management

In 2006, the Floodplain Management Committee became a chapter of the Association of State Floodplain Managers, under the name New Jersey Association for Floodplain Management (NJAFM). The purpose of the organization is described in the organization's constitution, and includes a range of floodplain management-related issues, including promoting public awareness of proper floodplain management, encouraging the exchange of ideas about floodplain management, informing concerned individuals about pending floodplain and coastal management legislation, and studying and supporting floodplain management legislation, among other missions. NJAFM is an active supporter of flood mitigation in the state. One example of this support is the NJAFM annual conference. The annual conference provides an opportunity for professionals in engineering, hydrology, geology, planning, code enforcement, floodplain management, and

emergency management to participate in plenary sessions and concurrent sessions on a broad range of relevant topics. The conference also includes a number of training opportunities and networking events.

At the 2013 conference, the planning consultant presented a summary and status update of the 2014 Plan update in a break-out session. A hardcopy and online survey was also developed and distributed to gain feedback from local floodplain administrators and municipal officials about local capabilities and abilities as well as state support and effectiveness. NJAFM supported the mitigation plan update by distributing an online survey via email to all NJAFM members. Figure 2-2 below is a screen shot of the NJAFM email notification regarding the survey. More information on NJAFM can be found at their web site: www.njafm.org

Figure 2-2. Screenshot of NJAFM Email Notification



Source: www.NJAFM.org

2.3 Program Integration

44 CFR 201.4(b): "[The State] mitigation planning process should…be integrated to the extent possible with other ongoing State planning efforts as well as other FEMA mitigation programs and initiatives."

Mitigation plan implementation is most effective when mitigation planning efforts are integrated and coordinated with other state and federal programs and initiatives. The following section discusses state and federal mitigation programs and initiatives. Additional information concerning program integration is available in Section 6 (Mitigation Strategy) and Appendix G (Capabilities Assessment).

2.3.1 State Mitigation Programs and Initiatives

There are several state programs and initiatives that foster state plan integration and coordination. These programs and initiatives are summarized below.

State Facilities Risk Management Program

The State of New Jersey addresses hazard mitigation for State-owned and State-leased properties through the Department of the Treasury's Bureau of Risk Management in association with its insurance carrier(s). Each facility is required to have an emergency response plan in place along with a loss prevention and control program that includes a "red tag permit system" supervising all fire protection water supply valve closures, an electrical system maintenance program, and a risk assessment of all plans for additions or other changes to building construction, protection, or building use.

The Bureau of Risk Management distributed copies of a detailed, four-page Flood Checklist to each state department specifying actions to be taken when flood threatens, after a flood, and each year prior to flood season. In addition, flood emergency response plans have been developed, or are being developed, and they are updated each February for each state facility. These plans include:

1. An overview of the flood threat, identifying the source of potential flooding and the height of 100-year and 500-year floods relative to the floor heights of each facility;
2. Monitoring procedures during potential flood events, including regular observations of flood heights in water bodies, listening for flood alerts, and checking local water backup points at bridges, culverts and storm drains during heavy rain and thunderstorms to ensure drainage is not obstructed;
3. An action matrix addressing areas sensitive to potential impacts of flood waters and required responses to weather advisories, changes in river elevation, flood and post-flood conditions; and
4. Lists of emergency contacts and approved contractors for future mitigation and remediation.

While the New Jersey Board of Utilities (NJBPU) is an independent agency, it coordinates closely with the Bureau of Risk Management. NJBPU 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 is 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.

Land Building Asset Management

The State of New Jersey maintains a comprehensive GIS mapping database of State-owned and leased facilities. The Department of Treasury, coordinating its efforts with the centralized statewide GIS office in the NJDEP, is continually updating its GIS mapping capabilities for state-owned and leased facilities. The Office of Management and Budget (NJOMB) within the Department of Treasury has developed a centralized statewide Land and Building Asset Management (LBAM) database that is currently being populated with an

updated and expanded inventory of land, building improvements, infrastructure and inspections data. All State agencies maintaining facilities are included in LBAM database. Refer to Section 5.1 (State Risk Assessment Overview) for additional details on LBAM and the use of this database in the 2014 Plan update.

In addition, the NJOMB has an implemented new procedures (new RM/OMB Circular Loss Reporting) requiring state agencies to immediately report losses post hazard event for capture in LBAM database.

Governor's Office of Recovery and Rebuilding

The Governor's Office of Recovery and Rebuilding (GORR) taps the institutional knowledge and bandwidth of New Jersey state agencies in recovering from Superstorm Sandy. The working group structure executed by the 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. The Office has organized 13 working groups, each with a different recovery emphasis:

- Child & Family Services Working Group
  - Chair: Commissioner, Department of Children and Families
- Community Capacity and Resources Working Group
  - Chair: Director, Division of Local Government Services
- Economic Working Group
  - Chair: CEO, Economic Development Authority
- Environmental Infrastructure Working Group
  - Chair: Commissioner, Department of Environmental Protection
- Hazard Mitigation Working Group
  - Chair: Commissioner, Department of Environmental Protection
- Housing Working Group
  - Chair: Commissioner, Department of Community Affairs
- Insurance Working Group
  - Chair: Commissioner, Department of Banking and Insurance
- Labor Working Group
  - Chair: Commissioner, Department of Labor and Workforce Development
- Natural and Cultural Working Group
  - Chair: Commissioner, Department of Environmental Protection
- Public Health Working Group
  - Chair: Commissioner, Department of Health
- Public Utilities Working Group
  - Chair: President, Board of Public Utilities
- Social Services Working Group
  - Chair: Commissioner, Department of Human Services
- Transportation Working Group
  - Chair: Commissioner, Department of Transportation

In addition, the GORR convened an interagency Critical Infrastructure Mapping Team to discuss housing statewide spatial data in a central location and to facilitate data sharing. Future updates to this plan will include the progress made by this new initiative.

Coastal Land Use Regulation Program

New Jersey Coastal Management Program

NJDEP is involved in a variety of hazard mitigation initiatives as part of the Coastal Zone Management (CZM) Program and as part of the Department's interaction with FEMA related to the National Flood Insurance Program (NFIP). The Coastal Area Facilities Review Act (New Jersey Statutes Annotated [N.J.S.A.] 13:19), the Waterfront Development Law (N.J.S.A. 12:5-3), and the Wetlands Act of 1970 (N.J.S.A. 13:9A) provide rules and regulations governing development in vulnerable coastal areas of New Jersey. Department staff routinely provides information to and work directly with municipal officials and property owners in the hazard identification, vulnerability analysis, and mitigation planning. Through the NJDEP regulatory programs, hazard mitigation activities are often required as a condition of a permit approval.

Improved hazard-resistant construction techniques and hazard sensitive building standards are resulting in more storm-resistant coastal development.

Coastal hazard vulnerability, particularly along the intensely developed oceanfront areas of New Jersey, is often influenced by the management practices on the adjacent beaches, dune systems, and shorelines. Protection, management, and enhancement of these important features, is a critical component of the New Jersey Coastal Management Program. With more than 50 municipalities, numerous beach associations and hundreds of private property owners controlling beach and dune areas, management practices and the resultant degree of vulnerability vary greatly.

New Jersey's Coastal Management Program has responded to these hazards in several ways. New Jersey has adopted a number of enforceable policies that deal directly with development in hazardous areas. These standards are codified in the CZM rules. These standards are designed to facilitate sound management of beaches, dunes, and shorelines throughout the coast to establish and support a consistent line of protection in the form of well-maintained and protected beaches and dunes. The standards are also intended to reduce development in the most vulnerable areas and reduce potential damage from coastal hazards for future development, and ensuring development does not adversely affect either the adjacent shorelines or structures or ecosystem. For more information on these standards go to: www.stae.nj.us/dep/cmp/czm_enforcepolicies.html.

In order to ensure the prompt and coordinated acquisition of easements or other interests in real property necessary to facilitate the timely completion of a comprehensive system of Flood Hazard Risk Reduction Measures, as directed by the Governor under Executive Order (EO) 140, the NJDEP Commissioner established the Office of Flood Hazard Risk Reduction Measures ("the Office"). The Office is headed by a director, appointed by the NJDEP Commissioner. The Office is a single State entity responsible for the rapid acquisition of property vital to the post-Sandy reconstruction efforts. The Office will lead and coordinate the efforts of the NJDEP to acquire the necessary interests in real property to undertake Flood Hazard Risk Reduction Measures and shall perform such other duties as the NJDEP Commissioner may from time-to-time prescribe. No municipality, county or other agency or political subdivision shall enact or enforce any order, rule, regulation, ordinance, or resolution which will or might in any way conflict with any of the provisions of EO 140.

In oceanfront and bay front areas, NJDEP rules prevent additions to, or tearing down and rebuilding homes that result in placing the home closer to an eroding shoreline, or in additional encroachment on dunes that is not mitigated. Mitigation can include enhancing the dune as a shore protection feature. These enforceable policies also govern residential development in V-zones, as well as regulate beach and dune disturbance. Further, these CZM rules contain standards for beach and dune management and implementation of best

management practices. These standards also maximize the benefits of the federal/state beach nourishment program by restoring the natural and beneficial functions of the beach and dune systems.

Among the enforceable policies in riverine and bay front areas are regulations that encourage the use of bioengineering as a preferred alternative to hard shoreline protection structures, particularly along the lower energy shorelines of the back-bays and rivers. By reflecting wave and current energy, bulkheads have frequently caused scour and erosion of sensitive environmental resources. NJDEP has also successfully promoted construction of sloped riprap revetments as an alternative to bulkheads. Sloped revetments have less impact on marine and estuarine resources because they tend to dissipate wave and current energy and thus reduce erosive and scour effects.

The NJDEP Coastal Management Office is the conduit for federal CZM grants that may be used for hazard mitigation activities such as historical shoreline change mapping projects, educational programs and coastal area planning initiatives. Under NOAA's 309 Grant Program, the Coastal Management Office has provided and will continue to provide pertinent information for local and state hazard mitigation plans. These efforts include disseminating coastal hazards information through the Coastal Management Program website; working with municipalities to provide the public with information regarding the limitations of beach nourishment; and collecting data, such as beach and dune mapping and beach profile mapping to determine the degrees of vulnerability of coastal communities. Pursuant to 15 CFR 930, federal activities affecting the coastal zone are required to be consistent with approved state coastal management programs.

More information on the NJDEP Coastal Regulation Program can be found at their web site at: www.state.nj.us/dep/cmp/.

Superstorm Sandy

On January 24, 2013, the NJDEP adopted emergency amendments to the flood hazard area rules and also filed a concurrent proposal to make these changes permanent. The announcement made on January 24, 2013 was:

Taking action to give New Jersey families, businesses and local governments the best available guidance to quickly and more durably rebuild from Sandy, Governor Chris Christie signed emergency regulations on January 24, 2013, to adopt the Federal Emergency Management Agency's (FEMA) updated Advisory Base Flood Elevation (ABFEs) maps as the rebuilding standard for the entire State. These regulations establish requirements and more efficient procedures for residents and businesses to construct, reconstruct, relocate and elevate buildings and other structures in flood hazard areas.

The NJDEP adopted an emergency rule with common-sense provisions for rebuilding stronger structures, more quickly including:

1. Adopts the height and construction requirements in FEMA's ABFE maps as a State standard for reconstruction. The ABFEs reflect the best available, most current scientific data about 100-year floods and should be used as the design flood elevation if more conservative than the existing FEMA map or State-delineated maps.
2. Allows property owners who rebuild finished floors to at least one foot above the design flood elevation (which has been required by the New Jersey Flood Hazard Area Control Act Rules since 2007) to do so via Permit By Rule (PBR) with a few other minor restrictions. Please see the rule text for details. This eliminates the need for thousands of property owners to apply for NJDEP's Flood Hazard Area permits, saving them at least $500 in permit fees plus the design and engineering costs associated with an application, and allowing them to begin reconstruction without waiting for department review as part of the rebuilding process.
3. Allows "wet flood-proofing" for non-residential buildings. Wet flood-proofing means that a building may flood but will structurally withstand the water, and enables reconstruction in urban areas in a safe

and less costly manner than requiring elevations or dry flood-proofing. This is a conditional allowance once the applicant demonstrates that it is not feasible to raise the lowest floor and proves that it is not feasible to use dry flood-proofing.

4. Eliminates requirements that now allow certain building foundations to have large openings which could result in unsafe construction method.

Adoption of the emergency Flood Hazard Area Act rule using the ABFE's (where appropriate) as the base elevation standard will ensure that every development in every municipality will apply the appropriate elevation standards across the board. The rule became effective immediately upon filing with the Office of Administrative Law.

On April 16, 2013, the 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. The announcement made on April 16, 2013, was:

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 NJ Department of Environmental Protection has 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.

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. The amendments, repeals, and new rules fall into five broad categories:

1. *Facilitation of the expeditious rebuilding of residential and commercial developments;*
2. *Facilitation of renovation or reconstruction of existing marinas and construction of new marinas;*
3. *Restoration of New Jersey's shellfish aquaculture industry;*
4. *Maintenance of engineered beaches and dunes and establishment of living shorelines; and*
5. *Facilitation of removal of sand and other materials, as well as the availability of dredged material disposal/placement areas.*

The Department has proposed to make these amendments, repeals, and new rules a permanent part of the Coastal Permit Program rules, N.J.A.C. 7:7, and Coastal Zone Management rules, N.J.A.C. 7:7E.

On June 20, 2013, the NJDEP adopted amendments to the Coastal Permit Program rules, N.J.A.C. 7:7, and CZM rules, N.J.A.C. 7:7E. As stated in a press release issued on June 20, 2013:

As part of its ongoing commitment to help New Jersey's communities continue to recover and rebuild from Superstorm Sandy, the Christie Administration this week formally adopted rules that streamline Department of Environmental Protection (DEP) permits for various types of vital rebuilding projects.

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.

The changes to the coastal rules eliminate unnecessary red tape by enabling various types of projects to proceed under less cumbersome permit procedures, including permits by rule and general permits. At the same time, the processes put in place will not compromise protection of coastal resources and will help ensure the rebuilding of a more resilient New Jersey coastline.

"The Christie Administration is committed to taking every step possible to help our communities rebuild more resiliently and quickly following Sandy," said DEP Commissioner Bob Martin. "These common sense rule changes eliminate unnecessary red tape that would needlessly impede the important work of rebuilding while ensuring continued protection of our important natural resources."

The changes eliminate or significantly reduce time needed for DEP reviews. They also save property owners fees and costs associated with more complex permit requirements. The DEP initially adopted the rule changes on an emergency basis on April 16.

The activities regulated by the simplified permit processes are for reconstruction activities that are occurring largely on the same footprint or involve minimal (up to 400 square feet) expansion. In many cases, these changes will provide significant environmental benefits and better prepare coastal communities for future storms.

For example, the changes allow for use of a permit by rule for necessary sand fencing, and expand activities allowed under general permits for beach and dune maintenance. Permits by rule recognize that the projects being undertaken are minor in scope and have no environmental impact.

Specifically, the rules enhance coastal protection by:

- *Allowing maintenance of engineered beaches and dunes to federal project design levels through an individual coastal permit.*
- *Allowing for projects that create living shorelines through a general permit. Living shorelines utilize strategic placement of native vegetation, sand, organic materials, and/or bivalves such as oysters, clams and mussels to reinforce shorelines and prevent flooding naturally.*
- *Establishing a permit by rule for placement of sand to help create and stabilize dunes.*
- *Allowing for the removal of sand from underneath boardwalks through beach and dune maintenance general permit.*

The rules expedite the rebuilding of residential and commercial structures by:

- *Providing for a permit by rule for reconstruction of damaged residential or commercial structures in upland waterfront development areas that are outside the CAFRA [Coastal Area Facility Review Act] zone, primarily Raritan Bay and the Newark-New York Harbor complex. Such rebuilding is already exempt in the state's CAFRA zone, which hugs the coastline from Sandy Hook south to Cape May Point and north again along the Delaware Bay to Salem County.*
- *Helping property owners make their buildings safer when feasible by changing the current general permit requirement to a permit by rule for lateral or landward relocation of the existing footprint of a structure. Expansion must be no more than 400 square feet.*
- *Eliminating the need for a permit to elevate a bulkhead, dock or pier as part of repair, replacement or reconstruction, as long as this is done in the existing footprint and not over wetlands. This will provide more resilience in future storms.*

The rules also provide flexibility to allow marinas and other small businesses to enhance their operations without coming to DEP by:

- *Changing current individual permits to permits by rule to allow marinas to reconfigure docks, wharfs, and piers within their existing leased areas.*
- *Allowing a permit by rule for construction or installation of boat pump-out facilities.*

- *Changing current individual permit requirements to a general permit to allow for construction of support facilities.*

The rules also contain provisions to aid the recovery of the shellfish/aquaculture industry by:

- *Allowing for a permit by rule for placement of certain land-based structures instead of an individual permit.*
- *Allowing for a permit by rule for placement of predator screens, shellfish cages and other minor activities.*
- *Establishing a general permit for various commercial aquaculture activities, such as placement of shell.*

Finally, the rules expedite dredging after a storm event for which the Governor has declared a State of Emergency, by:

- *Allowing general permits instead of individual permits for dredging of man-made lagoons impacted by storm events.*
- *Replacing individual permits with general permits for removal of sand and other material deposited in the water as a result of bulkheads damaged by storms.*
- *Allowing general permits instead of individual permits for dredging of marina basins to removal materials deposited by storm events.*
- *Eliminating the requirement for a CAFRA permit for rehabilitation and use of existing dredged material management areas within the same footprint.*

Advisory Base Flood Elevation

Before Superstorm Sandy, FEMA had begun a coastal flood study to update the Flood Insurance Rate Maps (FIRM) for portions of New York State and New Jersey, using improved methods and data to better reflect coastal flood risk. After Superstorm Sandy, FEMA released ABFE maps based on the partially completed flood study for certain communities which were designed to help in the rebuilding and recovery efforts. FEMA is currently in the process of releasing preliminary work maps including full results of the coastal flood study

FEMA's preliminary work maps are based on the same underlying data as the ABFE maps, but include the results of a more refined analysis of shoreline conditions, including the effects of erosion and wave runup. Once released, the preliminary work maps will replace the ABFE maps, where applicable, as the best available flood hazard data until the release of the preliminary FIRMs. Until then, the ABFE maps will continue to represent the best available flood hazard data in those areas.

FEMA has released preliminary work map data for Atlantic, Bergen, Cape May, Cumberland, Essex, Hudson, Middlesex, Monmouth, Salem, and Ocean Counties, New Jersey, and New York City which supersedes the ABFE information which was previously released (FEMA 2014).

Coastal Permitting

There are two linked rules which govern the review of all coastal project proposals: the Coastal Permit Program Rules and the CZM rules. The Coastal Permit Program Rules at N.J.A.C. 7:7E provide the processes for permit reviews. It includes details on what activities need permits; the qualifications for general permits or permits-by-rule; the details for pre-application meetings, contents and fees; review procedures and deadlines; permit appeals; and enforcement of the coastal laws and rules (NJDEP 2013).

The CZM rules at N.J.A.C. 7:7E defines Special Areas of Environmental Interest, details requirements for development projects and sets forth the compliance criteria for permit approval. Certain general permits require compliance of specific sections of the CZM rule, for example "dunes" or "shellfish habitat". Individual permit applications must address and demonstrate compliance with each applicable component of the CZM rules for the specific site and regulated activity to be approved (NJDEP 2013).

The State regulates projects based upon at least one of the two characteristics:

- The proposed activity is a regulated activity; and/or
- The project occurs within or adjacent to a regulated coastal area (NJDEP 2013)

To be certain if a specific project is considered regulated or occurs in a regulated coastal area, one must apply for a Jurisdictional Determination (JD). A JD is the Division of Land Use Regulation's formal determination whether a state-issued permit would be required for the specific project and site. A JD does not guarantee the proposed activity would be approved (NJDEP 2013).

Department of Community Affairs –Sandy Recovery Division

The Sandy Recovery Division manages the majority of the federal funds being used to assist the State in recovering from Superstorm Sandy. These funds come from the Community Development Block Grant (CDBG) Disaster Recovery programs of the U.S. Department of Housing and Urban Development. The Sandy Recovery Division is committed to efficiently and effectively addressing the long-term needs of New Jersey's Sandy-impacted residents and communities through programs designed to help homeowners, tenants, landlords, developers and local governments. For additional information visit: http://www.state.nj.us/dca/divisions/sandyrecovery/index.html

Open Space Acquisition Programs

New Jersey is the most densely populated state in the country and has been a leader in attempts to preserve open space since 1962 when the first of many Green Acres bonds were issued. That first bond issue authorized the sale of $60 million in bonds with which to acquire lands for recreation and conservation purposes. Since that time, the State has repeatedly pursued additional bonds for acquisition of lands in the floodways of the Delaware River, Passaic River, and the Raritan River, and their respective tributaries, for recreation and conservation purposes. Though a sustainable source of funding for this program has not been secured, preserving open space near riverine and coastal systems remains a State priority.

Coastal Blue Acres

The Coastal Blue Acres (CBA) was created with the passage of the Green Acres, Farmland, Historic Preservation and Blue Acres Bond Act of 1995. The bond act contained $15 million for grants and loans to municipalities and counties to acquire lands in coastal areas that have been damaged by storms, which may be prone to storm damage, or that buffer or protect other lands from storm damage, for recreation and conservation purposes. The act defines coastal areas as those within the CAFRA zone (NJDEP 2012). CBA funds were divided into two parts:

- Pre-storm: $6 million for the acquisition of unimproved and largely unimproved storm-prone buffer lands that are funded with 75% grant and 25% loan. As of November 1998, all pre-storm funds have been committed to projects and no pre-storm funds are currently available.
- Post-storm: $9 million for the acquisition of lands that have suffered at least a 50% reduction in value as a result of storm damage that will be funded with 50% grand and 50% loan (NJDEP 2012).

Eight counties and 122 municipalities are eligible to apply for CBA funds. Coastal area lands eligible for purchase with CBA funds can be anywhere on a coastal barrier island, lands within 150 feet of the mean high water line of a tidal waterway, or lands within 150 feet of the landward limit of a beach or dune (NJDEP 2012).

The purpose of CBA is to provide grants and loans to county and municipal governments to acquire, for recreation and conservation purposes, lands in the coastal areas that:

- Have been damaged by storms or storm related flooding
- May be prone to incurring damage by storms or storm-related flooding
- Buffer or protect other lands from storm damage

CBA acquisitions can only be made from willing sellers. The CBA legislation specifically prohibits the use of eminent domain by a local government in acquiring land using CBA funding. Municipalities must be willing participants in the program as well. Sites acquired with CBA funding will be restricted to minimal improvements for public access. The development of recreation facilities that could become a storm hazard is prohibited.

The CBA legislation also states that all lands acquired with CBA funds shall be regulated under existing Green Acres rules. This includes submission of a recreation and open space inventory and the attachment of contractual restriction to all CBA acquired lands and all other lands held by a local government for conservation and recreation purpose.

Blue Acres and Green Acres Programs

The Green Acres Program was created in 1961 to meet New Jersey's growing recreation and conservation needs. The Green Acres Program serves as the real estate agent for the NJDEP, acquiring land - much of which has been offered for sale by property owners - that becomes part of the system of state parks, forests, natural areas, and wildlife management areas.

The Green Acres Program administers the $15 million in "Inland Blue Acres" funds. This money is being used for state acquisition of flood prone lands in the Passaic River basin. The new plans and approved funds will be found at: http://www.nj.gov/dep/greenacres/

The Blue Acres Program is a section of the Green Acres Program that deals with flood-prone properties. Through the NJDEP's Sandy Blue Acres Program, the State will spend $300 million in federal funds to give homeowners the option to sell Superstorm Sandy-damaged homes in flood-prone areas. The program was designed to give homeowners the ability to choose the best option for their individual situation. If offered by the homeowners, the State can buy clusters of homes or whole neighborhoods that were impacted by Superstorm Sandy. These homes will be demolished, and the land will be permanently preserved as open space, accessible to the public, for recreation or conservation. The overall goal of the Blue Acres Program is to dramatically reduce the risk of future catastrophic flood damage, and to help families to move out of harm's way (NJDEP 2013).

Morris County's mission is to move people out of harm's way and end the destructive cycle of repetitive flooding. Through the purchase and subsequent demolition of flood-prone homes, the County successfully helps municipalities create open space that acts as a natural, sustainable flood storage area, thus protecting the remaining homes, businesses and properties by forming a flood barrier with this preserved land. There are two funding tracks available. For more information visit: http://www.morrisplanning.org/flood/faq.asp

- *MATCH Program* - to provide match funding for projects already underway with another agency, i.e. FEMA, or Blue Acres. In this case, Morris County is the *subordinate* funder.
- *CORE program* – is designed to catch homes which have fallen through the FEMA/Blue Acres net – Morris County will be the *majority funder*.

Bergen County has passed a referendum allowing a similar use of Open Space funding.

Farmland Preservation

The Farmland Preservation Program is administered by the State Agriculture Development Committee (SADC), which coordinates with County Agriculture Development Boards, municipal governments, nonprofit organizations and landowners in the development of plans that best meet the needs of individual landowners (New Jersey Department of Agriculture [NJDA] 2006).

Land is eligible for the Farmland Preservation Program if it meets the SADC's minimum eligibility criteria, qualifies for farmland tax assessment and is part of an agricultural development area, an area where the County Agriculture Development Board has determined that farming is viable over the long term (NJDA 2006).

County Agriculture Development Boards are responsible for approving most applications to the Farmland Preservation Program. Therefore, they are the starting point for most interested landowners. County Agriculture Development Boards review and approve applications, and then forward them to the SADC, coordinating with the state and local municipalities throughout the process (NJDA 2006).

The value of a farm or development easement is established through two independent appraisals. Once a value has been determined and agreed upon and an application has been approved, the sale can proceed (NJDA 2006).

Farms or development easements that are acquired through the Farmland Preservation Program will be protected forever for agricultural use. Landowners who have sold their development rights still can sell their land at any time. Deed restrictions prohibiting non-agricultural development are linked with the land, so future owners of preserved farms would be required to comply with the deed restrictions (NJDA 2006).

NJDEP Blue Acres is partnering with USDA and United States Fish and Wildlife Service looking at buyouts on the Delaware Bay Shore region in Lawrence Township.

Historic Preservation

The Historic Preservation Office (HPO) administers a variety of programs that offer protection for historic properties. The HPO consults with federal agencies under Section 106 of the National Historic Preservation Act for federally funded, licensed, or permitted projects. At the state level, the New Jersey Register of Historic Places Act requires that actions by state, county, or local governments, which may impact a property listed in the New Jersey Register of Historic Places, be reviewed and authorized through the HPO. The HPO also provides advice and comment for a number of permitting programs within the NJDEP, including some permits required under the Land Use Regulation Program (HPO 2008).

The HPO, as part of the NJDEP, has an enhanced ability to provide input into environmental review and into open space acquisition processes. The Green Acres program has been an active supporter of preservation goals (HPO 2013).

Statewide Building and Construction Codes

The State of New Jersey signed the Uniform Construction Code (UCC) Act into law in 1975. The Commissioner of the New Jersey Department of Community Affairs (NJDCA) is authorized to implement and enforce rules pertaining to construction codes and provides for the management and implementation of those rules throughout the State. The development of the UCC (N.J.A.C. 5:23) in 1977, included the UCC Act and all rules issued under the Act relating to the administration and enforcement of construction regulations. The UCC includes four technical subcodes for construction: building, electrical, fire protection, and plumbing. The UCC also contains technical subcodes for fuel gas installations, mechanical installations, one and two family dwellings, accessible construction, the rehabilitation of existing buildings, the construction of manufactured homes, asbestos hazard abatement, radon hazard abatement, and playground safety.

The UCC includes town building codes that address different hazards that affect New Jersey, as listed in Table 2-6. The State has adopted the 2009 International Building Code (IBC) and the 2009 International Residential Code (IRC) with state amendments. These address the construction of new buildings and their relationship to weather-related and geological hazards. More information on the NJDCA Building Code Programs can be found at their website: www.state.nj.us/dca

Table 2-6. International Building Codes

Hazard	International Building Code (IBC)
Geological	
Sinkholes and landslides	The current building subcode provides requirements for soils investigations before a building is designed to address these issues.
Earthquakes	The current building subcode provides requirements for soils investigations before a building is designed to address these issues.
Meteorological	
High Wind	The building subcode and the one- and two-family subcode (IBC and IRC 2009, New Jersey edition) has the latest wind maps and requires new buildings to be designed and constructed using these current values. In the years since the Uniform Construction Code was adopted, the requirements for building construction has been changed to address the current requirements concerning wind pressure requirements.
Flooding	The IBC and IRC 2009, New Jersey Edition, requires new buildings to be designed and constructed to comply with the most recent requirements concerning construction in a flood hazard area (A and V zones).
Wave Action	Under the IBC and IRC 2009, New Jersey requires new buildings to be designed and constructed to comply with the most recent requirements concerning construction in a flood (velocity) hazard area (Coastal V zones).
Drought	The plumbing subcode and the energy subcode of the Uniform Construction Code provide water conservation standards.
Human-Caused	
Conflagration (Fire)	The Uniform Construction Code provides for fire safety through the building subcode. The requirements for combustibility/non-combustibility, suppression, ratings of exterior walls, etc. address this area. New Jersey fire departments that report to the Division of Fire Safety use a national reporting system, developed by the federal government, referred to as National Fire Incident Reporting System 5.0. This system captures information regarding fire department responses to emergencies in the community. The benefit of this system is that the information collected is "all-incident," not just fire related, giving a computer-generated statistically accurate picture of to which hazards the fire service responds. Additionally, this system provides the SHMT the ability to address trends in urban and wildland fires. Not all fire departments in New Jersey report fires using the National Fire Incident Reporting System. About 71% of fire departments submit incident reports to the Division of Fire Safety.
Energy	The Uniform Construction Code provides for energy conservation through the adoption of the

Hazard	International Building Code (IBC)
	energy subcode. Further, the code officials in the State of New Jersey receive continuing education for all new code requirements and all other aspects of the adopted codes.

Source: *NJDCA*
% *percent*
IBC *International Building Code*
IRC *International Residential Code*
SHMT *State Hazard Management Team*

The State of New Jersey has also adopted the Residential Site Improvement Standards (N.J.A.C. 5:21-1.1 et seq.) promulgated by the NJDCA in 1993. The Residential Site Improvement Standards (RSIS) provide requirements for the construction of municipal improvement such as streets, sidewalks, sewers, water mains, and drainage systems associated with residential development. Several RSIS provide standards that address natural hazards of concern in this 2014 Plan update, as listed in Table 2-7.

Table 2-7. Residential Site Improvement Standards

Hazard	Residential Site Improvement Standards (RSIS)
Geological	
Sinkholes and landslides	Identification of municipalities with solution-prone carbonate geologic formations and requires new infrastructure to be designed and constructed to comply with the NJDEP's most recent requirements.
Meteorological	
Flooding	The RSIS provides standards for stormwater management design and requires new infrastructure to be designed and constructed to comply with the most recent requirements concerning construction in a flood hazard area (A and V zones) and other NJDEP requirements.
Drought	The RSIS provides standards for stormwater management design, water use, water consumption, and water demand standards.
Fire	The RSIS provides standards for the construction, capacity and location of fire hydrants.
Human-Caused	
Energy	The RSIS provides standards that help facilitate energy conservation.

Source: *NJDCA*
NJDEP *New Jersey Department of Environmental Protection*
RSIS *Residential Site Improvement Standards*

Hurricane Programs

The NJOEM, in conjunction with FEMA Region II, NJDEP, the National Weather Service, and the USACE Philadelphia District, has completed a technical data report entitled "New Jersey Hurricane Evacuation Study 2007" (PBS&J 2007). This study has been reviewed by interested parties and the data is being used to increase the State's preparedness levels. This comprehensive report contains data quantifying the major factors involved in hurricane evacuation decision-making. Proper use of this study will permit each county to update and revise hurricane evacuation plans and operational procedures. Additionally in conjunction with NJOEM, the USACE will begin a Hurricane Evacuation Study Behavioral Analysis which is scheduled to be completed in 2014.

In addition, a public outreach campaign included statewide distribution of the flyer: 'Hurricane Survival Guide for New Jersey' (2012) prior to the 2012 hurricane season.

More information on the NJOEM Hurricane Program can be found at: http://www.state.nj.us/njoem/

State Transportation Improvement Plan Flood Mitigation Projects

In recent years, approximately $3.98 billion has been budgeted annually for transportation capital investment projects. This figure includes both NJDOT and NJ Transit's Joint Capital Program. Along with state-generated investment resources, the transportation program relies heavily on capital financing provided by the federal government (through United States Department of Transportation). The State's Transportation Trust Fund and "Moving Ahead for Progress in the 21st Century (MAP-21) are the primary funding sources for transportation projects. MAP-21 also supports a nationwide pilot program to help communities reconcile their land use and transportation decision-making. MAP-21 provides opportunities to integrate hazard mitigation into both transportation and land use planning and project development processes.

The NJDOT works closely with the three Metropolitan Planning Organizations (MPOs) in New Jersey. Projects using federal funding are first approved through the State Transportation Improvement Plan as a result of collaboration between NJDOT and the MPOs. Once federal funding is approved, the project is moved into the planning phase. NJDOT's planning process typically begins with the submission of a "Problem Statement," which can come from any number of sources. Highway infrastructure repetitive issues and losses are rolled into the NJDOT Drainage Management System and are dealt with through the NJDOT Capital Program or Maintenance Repair Contracts. In either case, project execution is dependent on annual funding allocations. During the planning and scoping processes for each project, whether state, interstate, freeway, or land service, flooding mitigation reviews are implemented at least up to the 100-year storm level. These mitigation efforts include but are not limited to: expanded drainage systems, enlarged drainage systems, retention/detention basins, and vortex chambers.

An example of NJDOT mitigation efforts is the replacement of the New Jersey Route 72 Bridge in Ocean County. The existing bridge is the only egress from Long Beach Island and is therefore recognized as a critical and potentially vulnerable structure. Within NJDOT, the Divisions of Capital Program Management and Operations have collaborated in identifying mitigation measures in the planning of the new bridge. The addition of a pumping station immediately upon entering the island is an example of that collaboration. The bridge replacement project is under construction at this time.

NJDOT state traffic operations centers and office buildings have historically not sustained repetitive losses due to flooding or other natural hazards. However, NJDOT's movable bridges, signalized intersections, and maintenance yards, when located within a flood plain or along the coastline, are vulnerable to wind damage, power failures, flooding, and storm surges.

More information on NJDOT can be found at their web site at: http://www.nj.gov/transportation/

State of New Jersey Water Emergency Plan

The State of New Jersey Water Emergency Plan, approved in 2002 and currently under review for an updated Plan, guides the necessary actions to be taken in response to a potential water shortage situation or water shortage emergency, pursuant to New Jersey's Water Supply Management Act and the Emergency Management Act. It describes the responsibilities of various State, County, local authorities, such as the Office of the Governor, NJOEM, NJDEP, NJDOH, County and Local Emergency Management Coordinators, and serves as a supplement to the State Emergency Operations Plan. NJOEM and NJDEP, as lead agencies, are coordinating an initiative to update the Water Emergency Plan. More information on the Water Supply Management Act and NJDEP can be found at: http://www.nj.gov/dep/watersupply/pdf/njsa_58_1a_1.pdf and http://www.nj.gov/dep/watersupply/ conserve.htm

The New Jersey Water-Supply Planning Activities in 2012 Report is a short overview of water-supply planning activities during 2012. This report also summarizes work funded by the NJDEP and performed by

the United States Geological Survey (USGS) and Rutgers University. In New Jersey, all water table public supply wells are required to be protected by well head protection areas. These areas help guide local municipalities in making informed land use decisions for the areas that may contribute to the wells. This report can be found at: http://www.state.nj.us/dep/njgs/pricelst/tmemo/tm13-1.pdf

NJDEP Dam Safety Program

The purpose of the NJDEP Dam Safety Program is to minimize the possibility of a dam failure and to mitigate the effects of dam failures that do occur. The primary goal of the program is to ensure the safety and integrity of dams in New Jersey and, thereby, protect people and property from the consequences of dam failures. A dam failure on a sunny day can cause major flood damage and a dam failure during a flooding disaster event can greatly increase flood damage.

In New Jersey, a dam is any artificial barrier, together with appurtenant works, that raise the waters of a stream more than five feet above the usual mean low water height. The Bureau of Dam Safety and Flood Control reviews plans and specifications for the construction of new dams, or for the alteration, repair or removal of existing dams and must grant approval before the owner can proceed with caution. All applicants must submit an Operation and Maintenance Manual and applicants for Class I and II dams must prepare and submit an Emergency Action Plan.

The Division of Engineering and Construction, Dam Safety Program published the Dam Safety Standards, New Jersey Administrative Code (N.J.A.C.) 7:20. Under N.J.A.C. 7:20-1.4, General Requirements and Prohibitions, Subsection (g) states: "The Department may deny any application for a dam permit, based upon its conclusion that the construction or operation of a dam will cause an unacceptable threat to or impact on natural or cultural resources or the environment."

In 1912 the state legislature instituted laws relating to the construction, repair, and inspection of existing and proposed dams. The law was amended in 1981 and became known as the Safe Dam Act. New Jersey's Dam Safety program is administered by NJDEP, Division of Engineering and Construction, Bureau of Dam Safety and Flood Control, under rules and regulations promulgated in May 1985 known as the Dam Safety Standards. More information on the New Jersey State Dam Safety Program can be found at: http://www.nj.gov/dep/damsafety/index.htm

New Jersey Department of State - Office for Planning Advocacy and the State Plan

In response to the need for increased coordination between the State Planning Commission and other agencies of state government with the New Jersey Office of Emergency Management, the Office for Planning Advocacy (OPA) in the Department of State (formerly Office of Smart Growth in the Department of Community Affairs and the Office of State Planning in the Department of Treasury) has taken action to ensure that emerging issues related to mitigation and planning are effectively addressed.

In addition to being staff to the State Planning Commission (SPC), OPA coordinates the activities of the Interagency Working Group (IAWG), Development Opportunities Interagency Team (DOIT), Greyfields Interagency Team (GRIT), and the Brownfields Redevelopment Interagency Team (BRIT). When any proposed changes to the State Development and Redevelopment Plan or other state or regional plans encourage development in hazard prone areas, cause potential threat to nearby areas, reduce open space that provides flood storage, or increase hazards anywhere in the state, recommendations and action can be taken to reduce those risks. For more on these agency groups, see http://www.state.nj.us/state/planning/programs.html and http://www.state.nj.us/state/planning/brownfields.html.

Other State Agency Plans Guiding Mitigation Actions

The NJOEM maintains a number of published plans and procedures to facilitate coordination in hazard preparedness, response, recovery and mitigation (see below). Many of these plans are prepared and maintained through interdepartmental efforts.

1. State of New Jersey Emergency Operations Plan update, anticipated in February 2014, by NJOEM. This operations plan sets guidance and policies for State departments and agencies, counties and municipalities in the development of emergency plans and sets procedures in their support of state emergency management activities.
2. Winter Storm Procedures, November 2013, by NJOEM. This procedure describes the actions necessary to properly respond to and manage a winter storm event from the State Emergency Operations Center.
3. Reverse 911 Procedures, August 2004, by NJOEM. This plan sets guidance policies and procedures for notification by telephone of residents of selected areas of impending or actual events that may affect life and safety. Currently, counties and municipalities within the state are utilizing their own Reverse 911 system and procedures.
4. Hurricane Procedures, September 2013, by NJOEM. This procedure describes the actions necessary to properly respond to and manage a hurricane event from the State Emergency Operations Center.
5. Hurricane Incident Annex, 2012, NJOEM
6. State Warning Plan, anticipated in 2014, by NJOEM. The purpose of this plan is to alert the affected segments of a given population to have them take specific protective action.
7. Emergency Alert System Operational Plan, anticipated in 2014, by NJOEM. This plan provides direction and control for the New Jersey state emergency communications committee of the emergency alert system in accordance with the rules, regulations and policies of the Federal Communications Commission.

Emergency Management Accreditation Program

Planning initiatives are enhanced through the State's participation in the Emergency Management Accreditation Program (EMAP). EMAP is a voluntary assessment and accreditation process for the emergency management programs of states, territories, tribes, and local governments. The State passed the EMAP assessment and became accredited on October 28, 2011.

2.3.2 Federal Mitigation Programs and Initiatives

There are several federal programs and initiatives that foster coordination. The NJOEM and the State Hazard Mitigation Officer are responsible for educating local officials and emergency managers, disseminating current information, and reviewing and administering many of the mitigation grant programs that FEMA offers. In this capacity, NJOEM works closely with FEMA to understand the grant requirements and utilize on-line and in-person training that FEMA provides. Effective communication with FEMA Region II in support of further educating New Jersey communities to the grant opportunities, applications and obligations, as well as obtain guidance to help facilitate grant application, is essential.

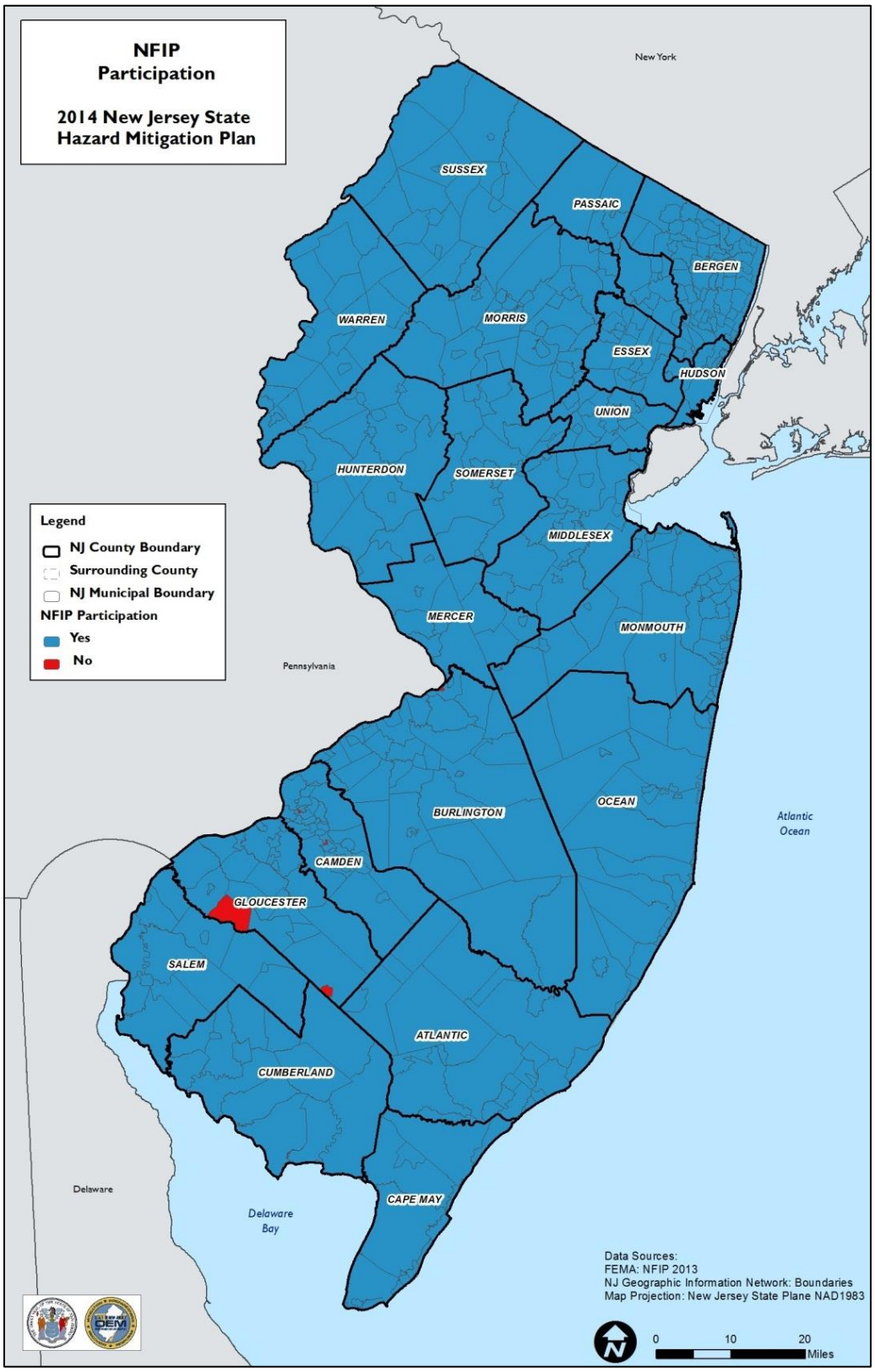
Additional information on specific FEMA programs can be found in Appendix H, and in subject-specific NJOEM fact sheets that NJOEM provides to explain various grant opportunities (Appendix I).

National Flood Insurance Program

The NFIP, created by an Act of Congress in 1968, makes flood insurance available in communities that enact and administer satisfactory floodplain management regulations. Of the 565 municipalities in New Jersey, 560 municipalities participate in the NFIP. The five following municipalities do not participate in the NFIP:

Borough of Audubon Park, Borough of Fieldsboro, Borough of Hi-Nella, Borough of Newfield and Township of South Harrison. Refer to Figure 2-3 below which illustrates the communities participating in the NFIP.

Figure 2-3. Communities Participating in the National Flood Insurance Program



Source: FEMA NFIP 2013

On July 6, 2012, the President signed into law the Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12),which reauthorized the NFIP through September 30, 2017, and made a number of reforms aimed at making the program more financially and structurally sound. Over the past year, a few of the provisions of BW-12 have been implemented, while others are being phased in over time. The purpose of the legislation is to change the way the NFIP operates and to raise rates to reflect true flood risk, as well as make the program more financially stable. BW-12 also involves changes regarding how FIRM updates impact policyholders. These changes will affect some—but not all—policyholders over time. For additional information visit: http://www.fema.gov/flood-insurance-reform-act-2012

In New Jersey, the NFIP is administered by the NFIP Coordinator within NJDEP. The NFIP Coordinator works closely with NJOEM on all NFIP issues, since eligibility for pre- and post-disaster programs relies on participation in the program. The three components of the program are: flood insurance, floodplain management, and flood hazard mapping. The NFIP makes federally backed flood insurance available to homeowners, renters, and business owners in the participating communities. Community participation in the NFIP is voluntary. Gaining municipality participation in the NFIP and encouraging property owners to purchase flood insurance significantly reduces disaster costs. Together these programs systematically reduce flood exposure to people and their property. The NFIP Coordinator works closely with FEMA to educate and inform communities of their responsibilities to maintain compliance.

FEMA RiskMAP Program

RiskMAP is defined as Risk Mapping, Assessment, and Planning. It is the second phase of the FEMA Map Modernization program. Full and complete information on the program can be found on the FEMA website: http://www.fema.gov/risk-mapping-assessment-planning

FEMA's FIRMs are essential tools for flood hazard mitigation. The FIRM shows each community's flood hazards and is a requirement for participation in the NFIP. The FIRM is used to determine who must buy flood insurance and where floodplain development regulations apply. These maps are used in the private and public sectors, in the following ways:

- Lending institutions and insurance companies use them to determine who needs flood insurance and to determine flood insurance rates.
- Community planning officials, land developers, and engineers use them for designing and siting new buildings and infrastructure to be safe from flooding.
- The State, counties and municipalities use them for hazard mitigation planning and emergency management.
- Federal agencies use them when implementing Executive Order 11988, Floodplain Management.

The first phase of Map Modernization (Digital Flood Insurance Maps [DFIRM]) will provide at its completion:

- A solid performance based project and program management infrastructure focused on results;
- A premier flood data collection and dissemination platform;
- Strong effective partnerships with state, local, and other federal governments;
- Digital flood hazard data and maps for 92% of the national population;
- New, updated, or validated flood hazard data for 30% of the mapped stream miles; and
- Credible floodplain boundaries for 75% of mapped stream and coastal miles.

"A Nation Prepared" is FEMA's vision and its mission is to lead America to prepare for, prevent, respond to, and recover from disasters. Risk MAP helps ensure that the Nation, as well as individual communities, is prepared for future floods and other hazard events. With accurate, up to date flood hazard data, states and

communities have the tools to reduce future flood losses. FEMA has identified six strategic goals through 2016, as follows:

- Reduce loss of life and property
- Minimize suffering and disruption caused by disasters
- Prepare the Nation to address the consequences of terrorism
- Serve as the Nation's portal for emergency management information and expertise
- Create a motivating and challenging work environment for employees
- Make FEMA a world-class enterprise

FEMA Region II Coastal Analysis and Mapping

Under its Risk MAP Program, FEMA is providing quality flood hazard information to help communities plan for and reduce the risk from flooding. After Superstorm Sandy in order to help in rebuilding and recovery efforts, FEMA released Advisory Base Flood Elevation (ABFE) maps which are based on the partially completed flood study for certain communities. FEMA is currently in the process of releasing preliminary work maps that include full results of the coastal flood study to update the information shown on the FIRMs for 14 coastal New Jersey counties and New York City. Many of these updated coastal flood study department grids were utilized in the 2014 Plan's risk assessment. Refer to Section 5 (Risk Assessment) for additional details. Additional information on FEMA Region II's coastal analysis and mapping can be found at: https://sites.google.com/site/region2coastal/

Table 2-8 below summarizes the status of flood hazard maps in New Jersey. This data is current as of November 3, 2013. The improved flood risk maps can be used to enhance state and local hazard mitigation plan risk assessments and lead to mitigation actions that reduce risk to life and property.

Table 2-8. Status of Flood Hazard Maps

County	Preliminary DFIRM Release	Final Effective DFIRM	ABFE	Preliminary Work Map Data
Atlantic	TBD		December 2012	June 17, 2013
Bergen	TBD	September 30, 2005	February 2013	Yes
Burlington	November 30, 2010		December 2012	
Camden		June 16, 2009		
Cape May	TBD		December 2012	Yes
Cumberland	TBD			Yes
Essex	TBD	June 4, 2007	January 2013	Yes
Gloucester		January 20, 2010		
Hudson	TBD	August 16, 2006	December 2012	June 17, 2013
Hunterdon	July 16, 2010	May 2, 2012		
Mercer	July 16, 2010			
Middlesex	TBD	July 6, 2010	February 2013	Yes
Monmouth	TBD	September 29, 2009	December 2012	June 17, 2013
Morris	April 30, 2010			
Ocean	TBD	September 29, 2006	December 2012	June 17, 2013
Passaic	TBD	September 28, 2007		
Salem	TBD			Yes
Somerset	TBD	September 28, 2007		

County	Preliminary DFIRM Release	Final Effective DFIRM	ABFE	Preliminary Work Map Data
Sussex	August 31, 2009	June 29, 2011		
Union	TBD	September 20, 2006	February 2013	Yes
Warren	August 31, 2009	September 29, 2011		

Notes:
Yes *Preliminary work map is available; release date unknown.*
ABFE *Advisory Base Flood Elevation*
DFIRM *Digital Flood Insurance Maps*
TBD *To be determined*

Community Rating System Program

The NFIP's Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote the awareness of flood insurance. As of May 2013, 82 communities in the State participate in the CRS. Refer to Appendix L (CRS) for a list of all communities participating as well as their ranking and, point distribution per CRS activity.

For CRS participating communities, flood insurance premium rates are discounted in increments of 5%. For example, a Class 1 community would receive a 45% premium discount, while a Class 9 community would receive a 5% discount. A Class 10 has not scored any CRS points and receives no discount. The CRS classes for local communities are based on the 18 creditable activities, organized under four categories as noted in Table 2-9 below.

For more information on the NFIP and CRS visit: http://www.fema.gov/national-flood-insurance-program-community-rating-system

A summary of CRS creditable activities is provided in Table 2-9 below indicating the New Jersey Uniform Minimum Credits available due to state regulations and actions. Appendix J presents the New Jersey communities participating in CRS along with their current class and status.

Table 2-9. CRS Creditable Activities

CRS Credit Points Awarded for CRS Activities		Maximum Possible Points1	Maximum Points Earned2	Average Points Earned3	% Communities Credited4	New Jersey Uniform Minimum Credits Available because of State Actions		
300 Public Information								
310	Elevation Certificates	116	116	46	100			
320	Map Information Services	90	70	63	93			
330	Outreach Projects	350	175	63	90			
340	Hazard Disclosures	80	57	14	68			
350	Flood Protection Information	125	98	33	92			
360	Flood Protection Assistance	110	65	49	41			
370	Flood Insurance Promotion	110	0	0	0			
400 Mapping and Regulations							Riverine	Coastal
410	Additional Food Data	802	585	65	50	Higher Study Standards	15-80	0
						Floodway Standards	0-90	0
						New Studies	Variable	
						State Review	Variable	
420	Open Space Preservation	2,020	1,548	474	68			
430	Higher Regulatory Standards	2,042	784	214	98	Building Codes	40	40
						Freeboard	7.5-100	7.5-100
						Other Higher Standards	5	5
						State Mandated Standards	19.5-20	18-20
						Development Limitations7	0-130	0
						Additional Building Codes7	10	10
						Local Drainage Protection7	10	10
						State Mandated Standards7	2-20	2-20
440	Flood Data Maintenance	222	171	54	87			
450	Storm-water Management	755	540	119	83	Erosion & Sediment Control	40	40
						Water Quality	20	20
						Watershed Master Planning7	0-120	0-120
						Stormwater Management Regulations7	0-129	0-129
500 Flood Damage Reduction								

CRS Credit Points Awarded for CRS Activities		Maximum Possible Points1	Maximum Points Earned2	Average Points Earned3	% Communities Credited4	New Jersey Uniform Minimum Credits Available because of State Actions		
510	Floodplain Management Planning	622	273	123	43			
520	Acquisition and Relocation	1,900	1,701	136	23			
530	Flood Protection	1,600	632	52	11			
540	Drainage System Maintenance	570	449	214	78			
600 Flood Preparedness								
610	Flood Warning Program	395	353	144	37			
620	Levees	235	0	0	0			
630	Dams	160	0	0	0	State Dam Safety7	0-45	0-45
	Total points	**12,304**	**7,617**	**1,863**	-		-	-

1 The maximum possible points are based on the 2013 Coordinator's Manual.
2 The maximum points earned are converted to the 2013 Coordinator's Manual from the highest credits attained by a community as of October 1, 2011. Growth adjustments and new credits for 2013 are not included.
3 The average points earned are converted to the 2013 Coordinator's Manual, based on communities' credits as of October 1, 2011. Growth adjustments and new credits for 2013 are not included.
4 The percentage of communities credited is as of October 1, 2011 (nationwide).
5 Activity 370 (Flood Insurance Promotion) is a new activity in 2013. No community has earned these points.
6 Activities 620 and 630 were so extensively revised that the old credits cannot be converted to the 2013 Coordinator's Manual.
7 Additional Potential Additional Credit

Source: CRS Coordinators Manual
% percent
CRS Community Rating System

Public Assistance

The objective of the FEMA Public Assistance (PA) Grant Program is to provide assistance to state, tribal, and local governments, and certain types of private nonprofit organizations so that communities can quickly respond to and recover from major disasters or emergencies declared by the President.

Through the PA Program, FEMA provides supplemental federal disaster grant assistance for debris removal, emergency protective measures, and the repair, replacement, or restoration of disaster-damaged, publicly owned facilities and the facilities of certain private nonprofit organizations. The PA Program also encourages protection of these damaged facilities from future events by providing assistance for hazard mitigation measures during the recovery process.

The federal share of assistance is not less than 75% of the eligible cost for emergency measures and permanent restoration. The grantee (State of New Jersey) determines how the non-federal share (up to 25%) is split with the sub grantees (eligible applicants).

The potential mitigation measures are determined to be cost-effective if they:

- Do not exceed 100% of project cost
- Are appropriate to the disaster damage
- Will prevent future similar damage
- Are directly related to the eligible damaged elements
- Do not increase risks or cause adverse effective to the property or elsewhere
- Are technically feasible for the hazard and location
- Otherwise meet requirements stipulated in PA policy, including environmental, historic and mitigation planning considerations

Pre-approved PA 406 projects include:

- Drainage/crossings and bridges
- Sanitary and storm sewer systems, wastewater treatment plants
- Potable water
- Electric power distribution
- Above-ground storage tanks, underground pipelines
- General effects of flood damage
- Anchoring, bracing
- Flexible piping
- General buildings, roofs, shutters, doors and windows, replacement of glass
- Miscellaneous structures

If the project is on FEMA's list for pre-approved projects, FEMA will not only pay for the repair to bring the facility back to pre-disaster design, function and capacity, but FEMA will offer an additional 100% to mitigate the project, minus the state's and applicant's cost share. For additional information on this program visit: http://www.fema.gov/public-assistance-local-state-tribal-and-non-profit/hazard-mitigation-funding-under-section-406-0.

There is no local or state hazard mitigation plan requirement as a condition of receiving public assistance grant funds for PA Categories A or B. However, an approved State HMP is required for any applicant to be eligible

to obtain funding assistance for any categories of "permanent work" under the FEMA PA Program. Permanent work categories include Categories C thru G. Descriptions of all categories are listed below.

- PA Category A - Debris Removal: this includes clearance of trees, woody debris, building wreckage, sand, mud, silt, gravel, and other disaster related material on public property.
- PA Category B - Emergency Protective Measures: These are taken before, during, and after a disaster to save lives and protect public health and safety.
- PA Category C - Roads and Bridges: Repair of roads, bridges, and associated features such as shoulders, ditches, culverts, lighting, and signs.
- PA Category D - Water Control Facilities: Repair of irrigation systems, drainage channels, and pumping facilities. Repairs of levees, dams, and flood control channels within the limitations of the Public Assistance Program.
- PA Category E - Buildings and Equipment: Repair or replacement of buildings, including their content and systems; heavy equipment, and vehicles.
- PA Category F - Utilities: Repair of water treatment and delivery systems, power generation facilities and distribution lines, and sewage collection and treatment facilities.
- PA Category G - Parks, Recreational Facilities and Other Items: Repair and restoration of parks, playgrounds, pools, cemeteries, and beaches, as well as any work or facility that cannot be characterized by Categories A to F.

To assist communities with the PA process post Superstorm Sandy, the NJOEM established the Disaster Recovery Bureau, a grants management organization, to provide technical assistance to county and local governments as well as other eligible private non-profits. This assistance has included assigning State Applicant Liaisons to provide face-to-face guidance through the FEMA process. NJDEP is conducting the environmental reviews for the NJDCA before money issued for many projects.

Individual Assistance

Individual Assistance (IA) includes the Individual Household Program (IHP; formerly named Individual and Family Grant Program [IFG]). It provides grants to individuals for the serious needs and necessary expenses of disaster victims. Individual assistance funding includes loans and grants under the FEMA Disaster Housing, State IFG Program, and/or SBA Home and Business Loan Programs. Catalog of Federal Disaster Assistance (CFDA) numbers are provided to help individuals find additional information on the CFDA website.

- Disaster Assistance—(CFDA Numbers: 97.048, 97.049, 97.05)—Provides money or direct assistance to individuals, families, and businesses in an area whose property has been damaged or destroyed and whose losses are not covered by insurance.
- Crisis Counseling—(CFDA Number: 97.032)—Provides supplemental funding to States for short-term crisis counseling services to people affected in Presidentially declared disasters.
- Disaster Legal Services—(CFDA Number: 97.033)—Provides free legal assistance to disaster victims.
- Disaster Unemployment Assistance Program—(CFDA Number: 97.034)—Provides unemployment benefits and re-employment services to individuals who have become unemployed because of major disasters.
- National Flood Insurance Program—(CFDA Number: 97.022)—Enables property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages.

Hazard Mitigation Assistance

FEMA's Hazard Mitigation Assistance (HMA) grant programs provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. Currently, FEMA administers the following HMA grant programs: 1) Flood Mitigation Assistance (FMA); 2) Hazard Mitigation Grant Program; and 3) Pre-Disaster Mitigation (PDM).

As of July 2013, the Repetitive Loss Grant Program (RFC) and Severe Repetitive Loss Grant Program (SRL) are no longer funded and are now addressed under the unified FMA program. The Biggert Waters Flood Insurance Reform Act of 2012 eliminated the SRL program. For more information Biggert Waters Flood Insurance Reform Act visit: http://www.fema.gov/flood-insurance-reform-act-2012. For previous year information regarding the SRL Program visit: http://www.fema.gov/severe-repetitive-loss-program. For previous year information on the RFC Program visit: http://www.fema.gov/repetitive-flood-claims-program

Flood Mitigation Assistance Program

The FMA program provides annual funding for local jurisdictions to reduce or eliminate long-terms risk of flooding to buildings, manufactured homes, and other insured structures. Grants may be awarded for planning assistance, implementation or mitigation strategies, and technical assistance.

Although the NFIP is administered by NJDEP, the FMA program is the responsibility of NJOEM. NJOEM works with the SHMT to identify prioritize and implement FMA programs. There are three types of grants available under FMA:

- Planning
- Project
- Technical Assistance

FMA planning grants are available to states and communities to prepare flood mitigation plans. NFIP participating communities with approved flood mitigation plans can apply for FMA project grants. FMA project grants are available to states and NFIP participating communities to implement measures to reduce flood losses. Ten percent of the Project Grant is made available to states as a technical assistance grant. These funds may be used by the State to help administer the program. Communities receiving FMA Planning and Project Grants must be participating in the NFIP. The program requires a 75%/25% cost share.

More information on the FMA Program can be found at: http://www.fema.gov/government/grant/fma/index.shtm

Hazard Mitigation Grant Program

The HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act. The HMGP, administered by FEMA, provides grants to states and local governments to implement long-term hazard mitigation measures after a federal disaster declaration. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. The Program requires a 75%/25% cost-share. The SHMT reviews all letters of intent and applications. The SHMT reviews, selects, and prioritizes applications for potential projects. Refer to Section 3 (Coordination of Local Planning) which outlines the awarded and obligated HMGP projects.

Hazard mitigation planning is an important aspect of a successful mitigation program. A fundamental component of the Disaster Mitigation Act of 2000 is the emphasis on planning. The State is eligible for up to 15% of the overall federal disaster expenditures if the State has an approved Standard All Hazards Mitigation Plan. Hazard mitigation planning is a collaborative process whereby hazards affecting the community are identified, vulnerabilities to the hazards are assessed, and a consensus is reached on how to minimize or eliminate the effects of these hazards.

FEMA requires after each federal disaster that an Administrative Plan (Annex A) be adopted indicating how HMGP funds will be managed. The purpose of this plan is to comply with the requirements of 44 CFR Section 206.437 and to set forth the administrative procedures, organization, and requirements for administering the HMGP in New Jersey. This Plan defines state procedures for the delivery of joint federal and state financial assistance to state agencies, local governments, and certain private non-profit organizations and Native American tribes or tribal organizations under the HMGP.

In order to apply for disaster-related HMGP funds, a Letter of Intent (LOI) must be submitted. Refer to Appendix K (LOI) to see the most recent NJOEM LOI. NJOEM Mitigation Unit will also conduct kick-off meetings for all affected counties following a Presidential disaster declaration.

Additional information on the HMGP can be found at: http://www.fema.gov/hazard-mitigation-grant-program

HMGP Elevation Program

The HMGP Elevation Program provides reimbursement grants of up to $30,000 for homeowners seeking to elevate their homes to mitigate against future flooding events.

HMGP Buyout Program

Through New Jersey's Blue Acres Program, the State has begun funding the acquisition of over 1,000 homes in Sandy-impacted areas subject to repetitive flooding. This $300 million program received an initial allocation of $100 million in HMGP funds.

HMGP Local Resiliency Projects

This $50 million program, which was allocated to all 21 counties, helps county and local governments pursue regional and local resiliency projects to better protect the State in the event of a storm or other disaster.

HMGP Energy Allocation Initiative

The Energy Allocation Initiative is intended to support efforts to encourage enhanced energy resiliency for critical assets and facilities in New Jersey. The program will allow communities to pursue technical innovation by harnessing the resources of the State's energy, environmental, and emergency management agencies and the perspective of the U.S. Department of Energy's SMEs.

Communities across the State have recognized the importance of energy resiliency in the Superstorm Sandy long-term recovery process. The HMGP received over 750 LOIs requesting generators and energy solutions totaling over $325 million. With the collaboration of representatives from the NJOEM, NJ Office of Homeland Security & Preparedness, NJDEP, and the NJ Board of Public Utilities, each LOI that included an energy project was analyzed. Objective criteria – including population size and density, facility type, NFIP participation, FEMA Public Assistance data, and other relevant factors – were used as a guide to identify those energy resiliency projects that have the potential to serve the greatest need in the event of a future disaster or

other event impacting the larger electrical grid. In total, $25 million is being allocated to 147 jurisdictions and public entities to support energy resiliency projects.

As part of the process, the State partnered with the U.S. Department of Energy (USDOE), the USDOE's National Renewable Energy Laboratory (NREL), and FEMA to analyze HMGP requests for energy solutions. NREL developed an energy questionnaire to evaluate potential resilient energy solutions and then analyzed the results on a local/facility level. Based on those results, NREL identified potential opportunities on a local/facility level to build energy resilience by pursuing innovative – but cost-effective – energy solutions. Those opportunities include retrofitting existing solar panel systems to provide continuous power during a disaster; exploring fuel cells, combined-heat-and-power, or other resilient technology which could result in monthly energy savings and be "islanded" from the electrical grid; installing natural gas, solar, or tri-fuel generators; and other innovative technologies. For additional information visit: http://www.state.nj.us/governor/news/news/552013/approved/20131009a.html or http://www.state.nj.us/njoem

Pre-Disaster Mitigation Program

The PDM program provides funds on an annual basis for hazard mitigation planning and the implementation of mitigation projects. Funding is made available for measures that can be taken to reduce or eliminate overall risk from natural hazards. Refer to Section 3 (Coordination of Local Planning) for a list of PDM grants awarded and obligated.

All applicants must be participating in the NFIP if they have been identified as having a Special Flood Hazard Area. In addition, the community must not be suspended or on probation from the NFIP. The NJOEM works directly with the FEMA Region II program coordinator to develop and submit projects and plans for funding consideration. 44 CFR Part 201, Hazard Mitigation Planning, establishes criteria for state and local hazard mitigation planning authorized by Section 322 of the Stafford Act, as amended by Section 104 of the Disaster Mitigation Act of 2000.

For all disasters declared after November 1, 2004, all States, local governments, and Tribes must have a FEMA approved mitigation plan in order to apply for FEMA mitigation funding. Therefore, the development of state and local multi-hazard mitigation plans is key to maintaining eligibility for future PDM funding. NJOEM mitigation staff provides assistance to local jurisdictions with application and project development for potential PDM funding.

More information on the PDM Program can be found at: http://www.fema.gov/pre-disaster-mitigation-grant-program.

U.S. Geological Survey Tidal Gauge Monitoring

The USGS maintains a network of gauges across New Jersey that continuously measure tidal levels. Funding for these gauges comes from both federal and state monies. These data sets are transmitted to the USGS and made available over the Internet. As project needs and funding levels change, gauges may be added or deactivated, and deactivated gauges may be reactivated. The NJOEM and NJDEP coordinate this effort along with USGS with additional support from the NJAFM and the NJ League of Municipalities. Additional information can be found at: http://waterdata.usgs.gov/nj/nwis/nwis

Fire Management Assistance Grants

Fire Management Assistance Grants (FMAG) are available to the State for the mitigation, management, and control of fires on publicly or privately owned forests or grasslands, which threaten such destruction as would constitute a major disaster. The Fire Management Assistance declaration process is initiated when a state submits a request for assistance to the FEMA Regional Director at the time a "threat of major disaster" exists. The entire process is accomplished on an expedited basis and a FEMA decision is rendered in a matter of hours. The FMAG Program provides a 75% federal cost share and the state pays the remaining 25% for actual costs. Before a grant can be awarded, a state must demonstrate that total eligible costs for the declared fire meet or exceed either the individual fire cost threshold - which is applies to single fires, or the cumulative fire cost threshold, which recognizes numerous smaller fires burning throughout a state. Eligible firefighting costs may include expenses for field camps; equipment use, repair and replacement; tools, materials and supplies; and mobilization and demobilization activities. More information on the FMAG program can be at: http://www.fema.gov/fire-management-assistance-grant-program

Emergency Management Performance Grant

Emergency Management Performance Grant (EMPG) funding is available to the State of New Jersey to educate people and protect lives and structures from natural and technical hazards. The grant is to encourage the development of comprehensive emergency management, including terrorism consequence management, at the state and local level and to improve emergency management planning, preparedness, mitigation, response and recovery capabilities. More information on the EMPG program can be found at: http://www.fema.gov/fy-2013-emergency-management-performance-grants-empg-program-0.

Community Development Block Grant-Disaster Recovery (CDBG-DR) Homeowner Assistance Programs

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 Section 6 (Mitigation Strategy) of this plan or visit reNewJerseyStronger.org

- 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

U.S. Department of Transportation

The U.S. Department of Transportation (DOT) Sandy Supplemental funds were principally allocated to the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

The State is using FHWA funds to repair roads and highways impacted by Superstorm Sandy and is designing and implementing "best practice" resiliency measures to reduce the risk of future flooding damage to State roads. These resiliency measures include anti-scour techniques, flood vents, pump stations, and elevation of certain segments of roadway.

FTA funding has supported NJ Transit's comprehensive cleanup and recovery plan that involved removing debris, repairing damaged tracks, switches and signal systems, repairing downed poles and overhead catenary

power wires, salvaging equipment, and repairing flood-damaged customer and support facilities. FTA funds will also support the State's efforts to strengthen its transit system, making it more resilient in the event of future storms like Superstorm Sandy. Several construction strategies and building materials are being employed to accomplish the storm-hardening objective, key electrical substations and equipment are being elevated, and additional "safe haven" rail storage capacity has been constructed.

U.S. Army Corps of Engineers

Congress allocated $5.35 billion to the United States Army Corps of Engineers (Army Corps), including $20 million to undertake the North Atlantic Coast Comprehensive Study. The purpose of the study is to address the flood risks of vulnerable coastal populations in the areas affected by Sandy, including New Jersey. The study is scheduled to be completed by January 2015. New Jersey is committed to collaborating with the Army Corps to ensure that the study ultimately leads to implementable flood hazard mitigation projects for New Jersey communities that are particularly vulnerable to extreme weather events. The State continues to work closely with the Army Corps to ensure a comprehensive risk reduction strategy for New Jersey.