



## Section 1. Introduction

### 1.1 Purpose and Scope

#### 1.1.1 What Is Mitigation?

Each year natural disasters cause millions of dollars in damages, but the toll does not end there. The human misery that inevitably follows in the wake cannot be measured in dollars alone. As television footage of a disaster is broadcast to the homes of millions of viewers, three questions are on people's minds: Can it happen here? Can it happen to me? Can something be done about this?

The answers are yes, yes, and yes. It can happen to you. It can happen in your town, and something is being done. The State Hazard Mitigation Plan (HMP) is the cornerstone to reducing New Jersey's vulnerability to disasters. It is the State's commitment to reducing risks from hazards and serves as a guide for State decision makers as they commit resources to reducing the effects of hazards.

Hazard mitigation distinguishes actions that have a long-term impact from those that are more closely associated with pre-disaster preparedness, response to an event, and recovery from an incident. Hazard mitigation is the only phase of emergency management specifically dedicated to breaking the cycle of damage, reconstruction and repeated damage.

Hazard mitigation focuses on actions that reduce impacts to hazards. Local governments engage in hazard mitigation whenever they use their available tools, such as ordinances and building codes, to keep development out of harm's way. Identifying effective mitigation actions depends on the unique characteristics associated with specific hazards. Examples of mitigation measures include, but are not limited to the following:

- Hazard mitigation for flooding can involve strengthening of floodplain management regulations, identifying opportunities for acquisition of flood prone properties, and prioritizing other flood reduction measures.
- Mitigation actions for coastal areas at risk from hurricanes may include guiding development away from storm surge zones, as well as improving and enforcing building code requirements to strengthen buildings against wind and storm surge damage.
- For earthquake hazards, mitigation actions may include structural design standards to allow buildings to withstand ground shaking and soil liquefaction or limits to development in steeply sloped areas subject to landslides.
- For wildfires, where suburban development has encroached upon susceptible areas, mitigation actions can include development setbacks, adequate transportation access for emergency vehicles, adequate water supplies, and vegetation management.

"Human intervention" will never be able to fully prevent disasters from threatening the State. However, actions to reduce - or even avoid - the devastating impacts and rising costs of disasters and the disruption to daily

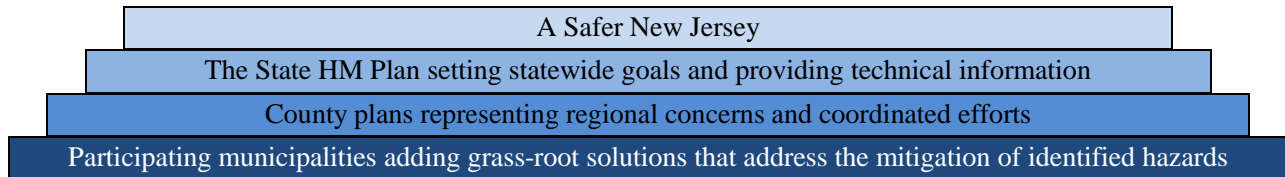
#### Hazard Mitigation

- ✓ *Is sustained action taken to reduce or eliminate the long-term risk and impact to people and property from hazards.*
- ✓ *Results in safer communities that resist becoming victims when disaster strikes.*
- ✓ *Actions and measures reduce risk for individuals, small and large businesses, and critical service locations such as hospitals, public safety facilities and utility service stations.*



activities can be taken. This is by planning for and implementing mitigation measures before disasters strike and by making sure that post-disaster recovery efforts include appropriate hazard mitigation measures.

Conceptually the New Jersey mitigation planning effort is based on building blocks that lead to a safer New Jersey with:



The State HMP captures historic disaster experiences and presents the hazards New Jersey faces based on current science and research. The Plan has been prepared to outline a strategy to reduce risks from hazards and serve as the basis for prioritizing future project funding. It establishes the framework for coordination between the Federal Emergency Management Agency (FEMA) and the State Hazard Mitigation Team (SHMT) for hazard mitigation programs. The Plan has been thoughtfully prepared, administratively adopted, and approved by FEMA, enabling state and local governments to apply for and participate in the various FEMA funded mitigation programs.

In addition, the Plan aids State and local decision makers, budget managers, and emergency management officials in developing hazard reduction programs based on a realistic assessment of hazards and vulnerabilities and developing a visible path toward sustainability. It serves as a tool to educate emergency managers and to encourage policy makers to look beyond their immediate community - think regionally and act locally. The Plan sets clear goals and timelines that assist State agencies, county governments, and municipalities in decision-making. It encourages the expansion of single-purpose disaster recovery and disaster prevention activities into wider opportunities for integrated community-wide planning, long-range neighborhood sustainability, and improved quality of life.

The State HMP demonstrates New Jersey's commitment to:

- Reduce risks from natural and human-caused hazards;
- Serve as a guide for both State and local decision makers as they commit resources to reducing the effects of hazards on lives and property;
- Provide assurances that the State will comply with all applicable Federal statutes and regulations during the periods for which it receives grant funding, in compliance with the Code of Federal Regulations [**44 CFR 13.11(c)**];
- Maintain its eligibility to participate in all FEMA funding programs;
- Amend the HMP whenever necessary to reflect changes in State or Federal laws and statutes as required in **44 CFR 13.11(d)**.

## 1.2 Planning Requirements

The State of New Jersey HMP was prepared in compliance with Federal requirements for Standard State Mitigation Plans in the Stafford Act. The Stafford Act was amended by the Disaster Mitigation Act of 2000 (42 USC 5165). The State HMP has been prepared in conformance with FEMA regulations at **44 CFR §201.3(c)(1)** and **§201.4(a) through (d)** that require State HMPs to be updated and resubmitted to FEMA for approval every three years. The following summarizes the federal and state sources, statutes, and executive orders that establish and define the authority of the State HMP:



- Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended (Appendix A)
- New Jersey Civil Defense and Disaster Control Act
- Executive Order #39 (Driscoll), Governor Driscoll, January 14, 1954
- Executive Order #12 (Cahill), Development of Department Emergency Plans, Governor Cahill, December 3, 1970
- Executive Order #101 (Byrne), Establishment of Office of Emergency Management, Governor Byrne, December 17, 1980
- Executive Order #115 (Florio), Establishment of Interagency State Mitigation Team, Governor Florio, January 14, 1994 (Appendix B)

The Disaster Mitigation Act of 2000 established a requirement that, in order to remain eligible for federal disaster assistance and grant funds, States and localities must develop and adopt FEMA-approved HMPs.

- On February 26, 2002, FEMA published an Interim Final Rule (IFR) that provided the guidance and regulations under which such HMPs must be developed. The IFR provides detailed descriptions of both the planning process that States and localities are required to observe, as well as the contents of the Plan that emerges. The IFR is included as Appendix C.
- On June 1, 2010, FEMA published Hazard Mitigation Assistance Unified Guidance that consolidates the common requirements for all hazard mitigation assistance programs and explains the unique elements of each program.
- On October 1, 2011, FEMA published Hazard Mitigation Plan Review Guide as an update to previously published Hazard Mitigation Assistance Unified Guidance. The accompanying "Local Mitigation Plan Tool" directs plan developers to the common requirements for all hazard mitigation assistance programs and explains the unique elements of each program.
- On July 12, 2013, FEMA published an updated Hazard Mitigation Assistance Unified Guidance continuing to outline common requirements for all hazard mitigation assistance programs reflecting programmatic changes made to date.

According to the federal regulations outlined in DMA 2000, state HMPs are required to be updated and re-approved by FEMA every three years; local HMPs must be updated every five years. The New Jersey Standard HMP was initially adopted in April 2005 and updated every three years as outlined below:

- Initial adoption - April 2005
- First update - April 2008
- Second update - April 2011 with minor revisions and updates as of November 2011
- Third update - April 2014

FEMA has natural hazard mitigation grant programs that distribute the allotted funds to eligible communities. In order to receive funding, each community must identify projects and submit a grant application through their State government. Several requirements must be met to receive funding. The following briefly summarizes the planning requirements of each program. Further detail regarding these programs and funding is in Sections 3 and 6 of this Plan.

- Public Assistance Program (Section 406):
  - Category A – B: no requirement for a plan
  - Category C – G: State and Local Plan required
- Fire Management Assistance (State): No requirement for a plan



- Hazard Mitigation Grant Program (HMGP): May apply for funds but cannot receive funds without an approved plan
- Pre-Disaster Mitigation (PDM) Program: State and Local Plan required
- Flood Mitigation Assistance (FMA) Program: State and Local Plan required

### 1.3 Organization of the Plan

The 2014 Plan is a comprehensive update of the 2011 HMP. The 2014 Plan update has been reformatted and organized to be more readable while paralleling the structure of the requirements outlined in **44CFR 201.4** and FEMA’s Plan Review Tool elements. All information previously contained in the 2011 Plan has been incorporated. In addition, the 2014 Plan has been updated and enhanced to include best available information and data. In summary, the 2014 Plan includes:

- Enhanced natural and human-caused hazards profiles and vulnerability assessment
- Loss estimation for State buildings
- Goals, objectives, strategies and actions that will guide the State's mitigation activities
- Comprehensive evaluation of progress towards achieving stated goals, strategies and actions
- More robust process for implementing and monitoring the Plan

The 2014 Plan includes references to the CFR throughout. Where possible, these provide specific section and subsection notations for the convenience of reviewers. When citing the CFR for state hazard mitigation planning, it is located in the dark blue text boxes as seen below:

**44 CFR 201.4(c)(4)(ii):** [The State Plan must include a] ...description of the State process and timeframe by which the local plans will be reviewed, coordinated, and linked to the State Mitigation Plan.

When citing the CFR for local hazard mitigation planning requirements (**44CFR 201.6**), it is located in the light blue text boxes as seen in the example below:

**44 CFR 201.6(b):** An open public involvement process in the development of an effective Plan.

As will be discussed throughout this Plan, the State of New Jersey experienced seven Federal Disaster Declarations, since the 2011 Plan was submitted to FEMA for review and approval, including Superstorm Sandy (refer to Table 2-1 in Section 2 Planning Process). Please refer to Section 5 (Risk Assessment) and Appendix D for additional details on each disaster declaration. Please note that Superstorm Sandy recovery efforts were still ongoing at the time of this 2014 Plan update; therefore the Plan will need to be updated as more information and data becomes available.

The new Plan organization is presented below with a brief summary of each section’s changes and enhancements. Table 1-1 crosswalks the section changes from the 2011 to the 2014 Plan.

- Section 1: Introduction – This section defines mitigation and the planning requirements for the HMP. It also discusses the Plan organization and a summary of changes made during the 2014 Plan update.
- Section 2: Planning Process – This section documents the planning process, the agencies and members of academia involved, and the manner of their involvement. It highlights the extended outreach efforts conducted to encourage participation and increased involvement during this Plan update. This section also describes how the planning process has been integrated into ongoing federal and state programs and initiatives. As described in Section 2, the Plan Development Committee was not



maintained for the 2014 Plan update. NJOEM contracted a planning consultant to facilitate and lead the planning process with the MCT, SHMT and newly established Cross-Agency Leadership Team.

- Section 3: Coordination of Local Planning - This section has been reviewed and updated to provide an overview of the present processes utilized by the State to support and promote mitigation planning at the county and local level. It also discusses processes developed to help local jurisdictions obtain funding and technical assistance for mitigation planning. This section describes how local mitigation projects are reviewed, prioritized and recommended for funding. This section has been enhanced to outline a clear, streamlined procedure for developing and supporting local planning. It has also been enhanced to include a discussion on how information from local HMPs has been integrated into the State HMP.
- Section 4: State Profile – This section, previously an appendix and now a stand-alone section in the 2014 HMP, provides a description of the State of New Jersey’s physical setting, population and demographics, economy, and land use and development.
- Section 5: Risk Assessment
  - Section 5.1: State Risk Assessment Overview – This section provides an overview of the hazard identification and update process, an outline of the structure of each hazard section, and the data used in the vulnerability assessment. A change made to the 2014 Plan is the vulnerability assessment that follows each hazard profile, so that all information presented about a specific hazard is continuous for ease of review and readability. New to this Plan update, the New Jersey Office of Management and Budget (OMB) within the Department of Treasury provided the Statewide Land and Building Asset Management (LBAM) database to use as the State building dataset for the risk assessment. The critical facility and infrastructure dataset was also expanded to include additional types. In addition, because an increased number of local HMPs are available for this Plan update, a more in-depth discussion of their results is incorporated throughout this section.
  - Sections 5.2 through 5.23: Risk Assessment for each Hazard - Each hazard of concern now has its own dedicated subsection. All hazard profiles and vulnerability assessments have been updated and enhanced to include more detailed and current technical information. The hazard profile includes a hazard description, geographic area of impact and extent, previous occurrences and losses and discussions on each hazard’s probability of future occurrence, severity, warning time, secondary hazards, and climate change impacts. The vulnerability assessment includes qualitative and quantitative assessments to jurisdictions, state facilities, and the environment as referenced above.
- Section 6: Mitigation Strategy – This section provides a description of the review and update of the State’s goals and objectives, a capability assessment of its programs, and mitigation strategies. Previously identified mitigation actions were updated by each lead agency, and new actions were developed to enhance the State’s resiliency to natural and human-caused disasters. The 2011 mitigation actions currently in operation with funded staff, an operation budget and established goals are now noted as a capability or current responsibility in a separate table (Table 6-9). For the 2014 Plan update, a modified social, technical, administrative, political, legal, economic, and environmental (STAPLEE) methodology for project evaluation and prioritization was used. This section also includes an updated detailed funding section to be used as a resource by the State and local jurisdictions.
- Section 7: Plan Maintenance – This section describes the 2014 implementation process. For the 2014 Plan update, changes to this section are based on an evaluation of the effectiveness of the plan maintenance strategy in the 2011 Plan.



- Section 8: Repetitive Loss Strategy – This section discusses the State’s updated strategy to reduce the number of repetitive and severe repetitive loss properties. The Biggert Waters Reform Act of 2012 which eliminated the Severe Repetitive Loss program is discussed.
- Section 9: Consequence Analysis – This section provides a brief overview of the Emergency Management Accreditation Program (EMAP), its requirements, and how the State meets Chapter 4 elements 4.3.1 and 4.3.2. This section is new to the State HMP.
- Section 10: Plan Adoption – This section has been updated and discusses the State approval and plan adoption process, the statutes and Executive Orders that establish and define the authority of the HMP, and the State’s assurances. In addition, a copy of the letter of adoption is included at the end of this section.
- Annex:
  - Annex A. State Hazard Mitigation Grant Programs Administrative Plan (Stand-Alone Document)
- Appendices:
  - Appendix A – Disaster Mitigation Act 2000
  - Appendix B – Executive Order 115
  - Appendix C – 44 CFR Parts 201 and 206
  - Appendix D – FEMA Declarations
  - Appendix E – 2013 Plan Amendment
  - Appendix F – Membership and Roles of the Mitigation Team
  - Appendix G – Capability Assessments
  - Appendix H – FEMA Programs and Funding Sources
  - Appendix I – NJOEM Mitigation Program Handouts
  - Appendix J – Community Rating System
  - Appendix K – NJOEM Letter of Intent
  - Appendix L – NJOEM Local Hazard Mitigation Planning Standard Operation Procedures
  - Appendix M – NJOEM Superstorm Sandy Workshop Presentation
  - Appendix N – Local Hazard Mitigation Plan Capability Assessment
  - Appendix O – FEMA Local Plan Review Checklist
  - Appendix P – Watersheds of New Jersey
  - Appendix Q – Geologic Hazard Maps and Tables
  - Appendix R – Wildfire Risk and Fuel Hazards for New Jersey
  - Appendix S – 2011 Plan STAPLEE Results
  - Appendix T – Standard State Hazard Mitigation Plan Crosswalk
  - Appendix U – National Flood Insurance Program Statistics

**Table 1-1. Crosswalk of Section Changes to the 2014 Plan**

2011 Plan	Location in the 2014 Plan
Section 1 - Table of Contents	Precedes Section 1
Section 2 - Executive Summary	Precedes Section 1 and content found in Section 1
Section 3 - Planning Process	Section 2 – Planning Process
Section 4 - Risk Assessment	Section 5 – Risk Assessment
Section 5 – Mitigation Strategy	Section 6 – Mitigation Strategy
Section 6 – Coordination of Local Planning	Section 3 – Coordination of Local Planning
Section 7 – Plan Maintenance	Section 7 – Plan Maintenance
Section 8 – Approval and Adoption	Section 10 – Plan Adoption



## **1.4 Contact Information**

For more information on the State Hazard Mitigation Plan, please contact:

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Web Page: [state.nj.us/njoem](http://state.nj.us/njoem)

The State of New Jersey 2014 HMP and Office of Emergency Management (NJOEM) mitigation handouts can be found at: [www.ready.nj.gov](http://www.ready.nj.gov)