

SECTION 3 COORDINATION OF LOCAL PLANNING

3.1 STATE PROCESS FOR DEVELOPING LOCAL PLANS, PROJECTS AND CONTINUED PLANNING

44 CFR 201.4(c)(4)(i): [The State Plan must include]...a description of the State process to support, through funding and technical assistance, the development of local mitigation plans.

This section has been reviewed and updated to provide an overview of the present processes utilized by the State (primarily New Jersey Office of Emergency Management [NJOEM]) to support and promote mitigation planning at the county and local level and develop processes to help local jurisdictions obtain funding and technical assistance for mitigation planning. This State HMP Update is intended to report on progress in this area and to provide a clear, streamlined procedure for developing and supporting local planning. This section provides a description of the process used by the NJOEM to support:

- The development of local multi-jurisdictional mitigation plans through funding and technical assistance
- The development of mitigation projects through funding and technical assistance
- The process of plan integration into the Hazard Mitigation Plan (HMP)
- The development of knowledgeable floodplain administrators at the local level
- The support of local OEM and other officials through funding and technical assistance
- The support for integration of local HMPs into local land use policies and procedures
- The update and adoption of previously approved HMPs.

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NJOEM's role in supporting hazard mitigation at the local level has increased from its previous function of encouraging the development of initial plans. Its current responsibility includes: implementing plans through the funding of high priority projects identified in local plan mitigation strategies and encouraging timely development and review of the Federal Emergency Management Agency (FEMA) required five-year updates to maintain jurisdictional eligibility for mitigation funds.

Table 3-1 shows the status of statewide mitigation plans, plan expiration dates and funding status.

Table 3-1 County/Municipality Status in County Plans Reported as of July 2018

HM Plans	HMP Edition	Population	# of Eligible Municipalities	HM Plan Expiration	Funding Status
New Jersey State HMP	5	8792459	565	4/25/2019	
Burlington County	3	448,734	40	9/8/2019	Update in
Ocean County	2	576,567	3	5/13/2019	Process
Somerset County	3	323,444	21	3/24/2019	(Funded under
Monmouth County	3	630,380	53	4/24/2020	DR-4086,
Bergen County	3	905,116	70	4/13/2020	DR-4264,
Essex County	3	783,969	22	3/13/2020	PDM 2016)
Hudson County	3	634,266	12	5/15/2020	
Passaic County	3	501,226	16	8/21/2020	
Morris County *1 non-participating municipality	3	492,276	39	8/26/2020	Funding in Process
Atlantic County	3	274,549	23	2/23/2021	(PDM 2017)
Union County	3	536,499	10	3/28/2021	
Elizabeth City	2	128,640	1	11/30/2020	No FEMA Funding
Middlesex County	2	809,858	25	3/8/2021	Scheduled
Gloucester County	2	288,288	24	4/27/2021	for DR-4368
Cumberland County	2	156,898	14	5/31/2021	
Cape May County	2	97,265	16	6/9/2021	
Warren County	2	108,692	22	7/29/2021	
Sussex County	2	149,265	24	8/2/2021	Pending - Availability
Hunterdon County	2	128,349	26	8/24/2021	of Funding
Mercer County	2	366,513	12	9/16/2021	
Camden County	2	513,657	37	1/25/2022	
Salem County	2	66,083	15	1/25/2022	

Source: FEMA 2017

As noted in the table, Elizabeth City is the only municipality that maintains an approved, single jurisdiction plan. The State currently prioritizes funding for County-level multi-jurisdictional HMPs and does not anticipate funding HMPs for single municipalities. No FEMA mitigation grant assistance funds were used in the preparation of the Elizabeth City HMP. The State does not intend to fund local municipal-level HMPs in the future.

3.1.1 FUNDING SUPPORT

Planning

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

local planning. The State has not funded any individual municipal plans from 2011 to present. Funding sources of countywide, multi- jurisdictional plans and projects are provided in Table 3-1.

NJOEM will continue its role in helping jurisdictions obtain grants, in an effort to remain compliant with Mitigation Planning regulation as directed in *44 CFR 201*. As noted, in various other places in this plan, the State will remain actively engaged with these jurisdictions as they develop their HMPs.

In order to facilitate funding of local hazard mitigation plans, the State has identified a progress-based schedule in which payment of the Federal share of the grant amount will be disbursed per the reimbursement schedule note below. Unless modified by mutual agreement, reimbursements shall be paid at 75% of total project cost attributed to each deliverable per the identified milestones:

- Upon project approval, signing of contract with consultant and procurement documentation (10%):
- Upon completion of Risk Analysis and Vulnerability (10%):
- Upon completion of preliminary plan including all municipal strategies (15%):
- Upon submission of Final Draft plan to State OEM (20%):
- Upon FEMA approval (20%):
- Upon adoption by all participants and request posting of the Final Approved plan on the website
 and require submission of two (2) hard copies and two (2) digital copies of the plan to the State
 OEM and distribution of the Plan to local participants (25%)

Planning Integration Funding

In recognition of the importance of integrating local mitigation plans in the daily operations and procedures of local governments, the State of New Jersey Department of Community Affairs (DCA) implemented a broad and well-structured program to augment NJOEM and FEMA efforts to integrate hazard mitigation planning into New Jersey master planning and hence into the land use system.

Specifically, the Post-Sandy Grant Program is designed to provide necessary funding to reduce or eliminate the long-term risk of flood damage and other hazards to residential and commercial structures. DCA announced on June 14, 2013, that \$5 million in Federal Community Development Block Grant Disaster Recovery funds are available to support long-range planning initiatives in municipalities affected by Superstorm Sandy. The grants are available to the counties of Atlantic, Bergen, Cape May, Essex, Hudson, Middlesex, Monmouth, Ocean, and Union, as well as to municipalities within those counties, who suffered tax-base losses of at least 1% or \$1 million as a result of Sandy. They are intended to support the development of recovery plans that incorporate issues of long-range resilience. Grant-approved projects must be overseen by an American Institute of Certified Planners- Professional Planner (AICP-PP) licensed planner. In addition to the Strategic Recovery Planning Report, other activities eligible for grant funds include: preparation of requests for proposals (RFP) for solicitation of planning services; modification or replacement of comprehensive plans or plan elements; community resiliency plans and master plans; development or modification of community development and neighborhood plans; efforts to streamline land-use permit approval procedures in anticipation of increased volume post- Sandy; preparation of flood-zone-specific design standards that enhance resiliency; preparation of capital improvement plans for public facilities and equipment; preparation of municipal HMPs; and development of resiliency-focused codes, ordinances, standards, and regulations to assist in implementation of local resiliency plans.

As part of the federal government's Hurricane Sandy recovery efforts, the U.S. Department of Housing and Urban Development (HUD) established the National Disaster Resilience Competition (NDRC), which made \$1 billion available to communities struck by natural disasters in recent years. The competition was designed to promote risk assessment, planning, and implementation of innovative resilience projects to better prepare communities for future storms and other extreme weather events. The competition was

funded by Community Development Block Grant Disaster Recovery (CDBG-DR) funds provided by the Disaster Relief Appropriations Act, 2013 (PL 113-2).

In January 2016, the State of New Jersey was awarded \$15 million as part of the competition. From that award, \$10 million will fund Resilient NJ. The Resilient NJ program is administered through the NJ Department of Environmental Protection (DEP), Office of Coastal and Land Use Planning (OCLUP). The remaining \$5 million will be used by DEP's Bureau of Flood Resilience to develop a toolkit of best practices for regional stormwater infrastructure systems.

Resilient NJ builds on the existing efforts and capabilities within the state to create and implement creative regional planning solutions to address current and future flood-related hazards, environmental resource protection, and the promotion of sustainable/smart growth development in both riverine and coastal communities. The program will bring together consultant teams to help communities imagine creative and implementable solutions to flooding issues that increase resilience, enhance the value and integrity of the ecologic and economic resources in the region, improve public access and recreation opportunities, and reach underserved and socially vulnerable populations.

Resilient NJ will also fund the development and implementation of a Regional Resilience and Adaptation Action Plan (Action Plan) in up to five multi-municipal regions. Eligible candidates are multi-municipal regions within, and including, the nine Sandy Most Impacted and Distressed counties in New Jersey: Bergen, Hudson, Essex, Union, Middlesex, Monmouth, Ocean, Atlantic, and Cape May. Each region must include a minimum of three contiguous municipalities.

Projects

NJOEM has been proactive in supporting local flood mitigation projects. This has been accomplished through garnering numerous HMA mitigation grants covering property acquisitions, structural elevations, flood control, stormwater mitigation, and communications projects. The State has worked closely with municipalities to identify and successfully produce grant applications to obtain funding in counties as noted in Tables 3-2. Table 3-2 illustrates the number of hazard planning and mitigation projects currently open and the funding levels of those ongoing projects. Grants funding emergency generators have been excluded from this table. At the time of writing this report the total number of generator funded HMGP projects totaled 380.

NJOEM will continue its role in helping jurisdictions obtain grants (through FEMA and other federal and State sources) to fund needed flood mitigation projects in vulnerable areas and will remain actively engaged with these jurisdictions as they implement their projects. Additional funding programs available are discussed further in Section 2 (Planning Process) and Section 6 (Mitigation Strategy).

Table 3-2 Currently Open HMGP Funded Projects by County

Grant	County	Project Title	Project Type	Eliş	gible Amt	Feder	al Obligated
1867	Atlantic	Absecon Creek Waterfront Shore Protection	Drainage	\$	581,700	\$	436,275
1873	Atlantic	Turner Ave and Absecon Blvd	Drainage	\$	456,900	\$	342,675
1897	Atlantic	Stormwater & Floodwater at Fisherman's Park	Drainage	\$	5,330,903	\$	3,998,177

Grant	County	Project Title	Project Type	Elię	gible Amt	Fede	ral Obligated
1867	Atlantic	New Jersey Ave & Highland Blvd Drainage	Drainage	\$	891,350	\$	668,513
4086	Atlantic	Elevation of electrical components Dorsett Ave Bridge	Elev Other	\$	18,329	\$	16,496
4086	Atlantic	Portable Connection	Other	\$	77,000	\$	-
4264	Atlantic	Margate City Elevations	Elev Building	\$	3,835,102	\$	2,876,327
4231	Atlantic	Longport Borough - Wind Retrofit of Fire Station Windows and Doors	Wind Retrofit	\$	52,045	\$	22,500
2016- FMA	Atlantic	Ventnor FY 2016 FMA Home Elevation Project	Elev Building	\$	1,419,902	\$	1,238,162
2016- FMA	Atlantic	City of Atlantic City	Elev Building	\$	1,909,076	\$	1,758,930
4086	Bergen	Bergen County Utilities Authority (BCUA) Multiple Mitigation Measures	Other	\$	400,000	\$	250,000
4086	Bergen	Bergen County Department of Public Works Flood Control - Backflow Preventers	Drainage	\$	4,127,611	\$	3,494,092
4264	Bergen	Update of the Bergen County HM Plan - 2020	Planning	\$	333,333	\$	250,000
2015- FMA	Burlington	Township of Medford FMA 2015 Elevation 26 New Freedom Road	Elev Building	\$	480,600	\$	480,600
2015- PDM	Burlington	Burlington County Mitigation Plan Update	Planning	\$	200,000	\$	150,000
4086	Burlington	Stormwater Pump Upgrades	Drainage	\$	1,455,000	\$	270,919
4086	Burlington	Delran Township - Residential Acquisition Project	Acq Demo Building	\$	201,500	\$	181,350
4086	Cape May	Cape May County Hazard Mitigation Plan Update	Planning	\$	250,000	\$	187,500
4086	Cape May	Cape May County – Ocean Drive CR-619 Flood Mitigation Project	Elev Other	\$	2,680,081	\$	1,993,905
1873	Cape May	Hope Corson Rd Drainage Project	Drainage	\$	575,000	\$	431,250

Grant	County	Project Title	Project Type	Eli	gible Amt	Fede	ral Obligated
4264	Cape May	Elevations in Ocean City, Sea Isle City, Avalon & Stone Harbor	Elev Building	\$	5,113,467	\$	-
1954	Cape May	City of Ocean City - North Pump Station [1st Street to 8th Street]	Drainage	\$	8,838,807	\$	4,984,384
4086	Cape May	Installation of Floodgates at Cape Regional Center	Floodproofing	\$	21,000	\$	-
1867	Cumberland	NJ State Police Bivalve Station Shore Protection Improvements	Drainage	\$	53,400	\$	40,050
2016- FMA	Cumberland	City of Brigantine, Atlantic County	Elev Building	\$	-	\$	-
4086	Essex	Belleville Township Main Street Flood Control	Drainage	\$	142,528	\$	128,250
2016- PDM	Essex	Essex County Local Multijurisdictional Multihazard Mitigation Plan Update	Planning	\$	300,000	\$	225,000
4086	Gloucester	Southern Delaware 4 County Multi- Jurisdictional Hazard Mitigation Plan Update	Planning	\$	800,000	\$	600,000
4231	Gloucester	Gloucester County - Levee Pump Station Improvements (Phased I Application Package)	Drainage	\$	150,000	\$	112,500
2016- PDM	Hudson	Hudson County Local Multijurisdictional Multihazard Mitigation Plan Update	Planning	\$	250,000	\$	187,500
4086	Hunterdon	Hunterdon County Multi- Jurisdictional Hazard Mitigation Plan	Planning	\$	200,000	\$	150,000
4086	Mercer	Mitigation Plan-post disaster update	Planning	\$	125,000	\$	93,750
2010- LPDM	Mercer	City of Trenton - Assunpink Greenway Demolition Project	Acq Demo Building	\$	400,000	\$	300,000
4086	Middlesex	Middlesex County Multi- Jurisdictional Hazard Mitigation Plan Update	Planning	\$	250,000	\$	187,500
4086	Middlesex	Installation of Stormwater Pumps	Drainage	\$	400,000	\$	360,000
4086	Monmouth	Long Branch Flood Control Project	Floodproofing	\$	258,640	\$	212,030

Grant	County	Project Title	Project Type	Eligible Amt Fed		Feder	al Obligated
2010- SRL	Monmouth	Sea Bright	Elev Building	\$	241,040	\$	216,936
4086	Monmouth	Highlands Borough - Flap Valves	Floodproofing	\$	50,000	\$	36,000
4086	Monmouth	Storm Sewer Outfall Rehabilitation Project	Drainage	\$	395,100	\$	355,590
4086	Monmouth	Port Monmouth Drainage II	Drainage	\$	251,767	\$	153,000
4086	Monmouth	Pump and Generator Elevation/Upgrades	Elev Other	\$	650,000	\$	585,000
4264	Monmouth	Monmouth County - Local Multijurisdictional Multihazard Mitigation Plan Update	Planning	\$	333,333	\$	250,000
2015- FMA	Monmouth	Elevation of Private Structures	Elev Building	\$	2,219,480	\$	1,664,610
2011- PDM	Monmouth	PDMC 2011 - Township of Neptune NJ Outfall Valve and Bulkhead Project	Drainage	\$	1,114,039	\$	835,529
4086	Monmouth	Shorelands Park Drainage Improvement	Drainage	\$	1,106,000	\$	270,000
2016- FMA	Monmouth	Flood Mitigation Assistance Grant FY 2016	Planning	\$	30,000	\$	-
2014- PDM	Morris	Township of Denville Flood Mitigation Plan	Planning	\$	27,200	\$	20,400
2015- FMA	Morris	FMA 2015: Elevation of 26 Private Riverine Structures in Pequannock Township	Elev Building	\$	5,066,779	\$	4,568,863
2016- FMA	Morris	FMA 2016 - Pequannock Township: Elevation of 22 Private Riverine Structures	Elev Building	\$	5,001,492	\$	4,322,362
4086	Ocean	Installation of Ten (10) Tide Flex Valves	Drainage	\$	56,150	\$	50,535
4086	Ocean	Emergency Portable Generator & Portable Wastewater Bypass Pump	Drainage	\$	163,671	\$	157,304
4086	Ocean	Tide Flex Valves	Drainage	\$	86,600	\$	77,940

Grant	County	Project Title	Project Type	Eli	gible Amt	Fede	ral Obligated
4086	Ocean	Elevation of electrical panels and control at 80th St Water Plant	Elev Other	\$	50,000	\$	45,000
4086	Ocean	Pump Station No. 3 Upgrades	Elev Other	\$	510,844	\$	469,759
4086	Ocean	Mill Creek Road Shoreline Stabilization	Floodproofing	\$	786,700	\$	407,610
4086	Ocean	Floodproofing of the Raw Water Pump Station located on the Metedaconk River	Floodproofing	\$	200,179	\$	166,976
2015- PDM	Ocean	Ocean County Plan Update	Planning	\$	200,000	\$	150,000
4086	Ocean	Beth Medrash Govoha Localized Flood Control System	Floodproofing	\$	300,630	\$	270,000
4086	Ocean	Surf City #6 & #7 Well Elevation	Elev Other	\$	400,400	\$	345,000
4086	Ocean	Good Luck Point Acquisition and Demolition Project	Acq Demo Building	\$	5,529,861	\$	4,189,062
4086	Ocean	Installation of a River- Front Wave Energy Dissipation Structure & Bulkhead	Drainage	\$	95,000	\$	85,500
4086	Ocean	Bayfront Wave Energy Dissipation Structure	Drainage	\$	1,300,000	\$	1,170,000
4264	Ocean	Township of Stafford Structural Elevation Project	Elev Building	\$	1,278,367	\$	958,775
2016- FMA	Ocean	Structure Elevation/Township of Berkeley, New Jersey	Elev Building	\$	558,175	\$	558,175
4264	Ocean	Long Beach Township Home Elevation Project	Elev Building	\$	3,835,101	\$	2,876,326
2010- SRL	Passaic	Little Falls Township	Elev Other	\$	6,636,800	\$	-
2013- FMA	Passaic	Wayne Township FMA Acq. & Demo.	Acq Demo Building	\$	31,476,300	\$	31,476,300
2015- FMA	Passaic	Wayne Acq/Demo FMA 2015	Acq Demo Building	\$	14,363,900	\$	14,363,900
2015- FMA	Passaic	2015 FMA Little Falls Acquisition Project	Acq Demo Building	\$	11,651,155	\$	10,276,609

\$

Drainage

125,000

\$

Drainage Improvements to

Little Paint Way

4086

Sussex

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Grant	County	Project Title	Project Type	Eligi	ible Amt	Federa	al Obligated
4086	Union	Union County Multi- Jurisdictional Hazard Mitigation Plan Update	Planning	\$	250,000	\$	187,500
4086	Union	Trinitas Regional Medical Center Generator/Power System/Pumping Station	Elev Other	\$	966,667	\$	870,000
4086	Union	Retrofit/Upgrade Wastewater Pumping Station	Floodproofing	\$	964,000	\$	867,600
4086	Warren	Warren County Multi- Jurisdictional Hazard Mitigation Plan	Planning	\$	200,000	\$	150,000
2015- FMA	Warren	Warren-Hunterdon Acquisition Project	Acq Demo Building	\$	5,409,401	\$	5,409,401

3.1.2 TECHNICAL ASSISTANCE AND OUTREACH

The State is committed to a comprehensive mitigation program and actively supports local mitigation planning by providing technical assistance such as workshops, training, and funding. The State provides initial guidance and information to agencies implementing local HMPs or plan updates through the assistance of State planners as needed and as resources are available. Generally, the State requests a meeting with the grant recipient and FEMA to review State and FEMA planning and State and FEMA review checklist requirements. Resources post-Sandy have been available to assist with the initial plan implementation and monitoring of the planning process.

Furthermore, post-Sandy workshops were convened in each of the counties to inform local governments of available Hazard Mitigation Grant Program (HMGP) grant funding and to assist in understanding how to access the funds, funding timelines, and eligible projects. A list of these workshops is provided in the Post Disaster Technical Assistance subsection below.

Planning Awareness and Education

The State has established the basic processes for assisting local and regional jurisdictions with mitigation planning. NJOEM is the lead agency responsible for hazard mitigation activities in the State. NJOEM provides statewide awareness and education programs primarily to counties and municipalities with approved HMPs, but the programs are available to all jurisdictions.

The State engaged the services of a contract mitigation planner to support local jurisdictions with plan updates and pre-disaster mitigation funding technical assistance. This resulted in the creation of standard operating procedures.

Procurement support is provided to the successful planning grant recipients to facilitate the request for proposal and contracting phases of the project. Additionally, the State has prepared a template public announcement, adoption resolution, and extraordinary circumstances letter for use by grant recipients as needed.

In addition, the State has initiated a new reimbursement schedule whereby the sub-grantee is reimbursed by deliverable. The final payment is approved after receipt of all adoption resolutions. If all are not received, then the county must show due diligence in trying to obtain local resolutions.

The position of dedicated planner has improved the level of technical support provided by the state to counties. Since this is a contract position specifically to address post-Sandy resources, this will be limited in nature. However, processes have been put in place that may remain as standard procedures to support future, ongoing technical support.

NJOEM provides software, materials, and workshops to help municipalities and counties as they draft their original and updated plans. NJOEM distributes the FEMA 363 series of "How to" guides, Benefit-Cost Analysis software, and the FEMA Region II planning toolkit (located at http://www.fema.gov/about/regions/regionii/toolkit.shtm) to help jurisdictions as they draft and update plans. NJOEM also holds workshops on various subjects, many with FEMA experts, to help with the training. These workshops include:

- Repetitive Flood Loss
- Severe Repetitive Flood Loss
- Benefit-Cost Analysis
- Hazard Mitigation Planning
- Coastal Mitigation Plans
- Mapping
- HAZUS
- Program Roll-Out
- Application Development Roll -Out
- Planning Software
- Mitigation Project Development
- Funding Sources

Materials have been available upon request. In the upcoming state plan cycle, the State expects to reinstitute workshops that are planned and scheduled based on the grant cycles, well in advance of plan expiration, to ensure that communities who plan to apply for specific grants have the most up-to-date information.

NJOEM will also schedule workshops at the request of jurisdictions.

The existing NJOEM procedure includes the following:

- Provision of 44 Code of Federal Regulations (CFR), revised FEMA Local Mitigation Plan Review Guide and FEMA's Local Mitigation Plan Review Tool to jurisdictions at the outset of the planning process
- Attendance of at least one steering committee meeting, one stakeholder meeting, and one public meeting during the planning process to be a resource to the municipality or county, to answer any questions and to direct planners to state resources or tools. NJOEM staff also is available during the draft plan development to answer any questions or provide guidance and assistance

NJOEM has adhered to this policy as time and resources permitted. It is expected that additional resources will be provided in the upcoming cycle to enable full adherence to this policy.

Planning Informational Resources

In an effort to provide all local jurisdictions and interested non-profit agencies and individuals, with current and reliable information, NJOEM has developed a series of handouts on:

- General mitigation information
- Information on individual FEMA programs
- Information on projects
- Information regarding the development of a HMP
- Information on current plans and projects
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The handouts have changed as hazard mitigation has taken hold in New Jersey. The NJOEM "Handout" program was developed based on four goals:

- To foster an understanding of mitigation
- To encourage active participation in the planning process
- To engage in meaningful mitigation projects
- To prepare for the update and recertification of mitigation plans

The handouts have pertinent FEMA website information in an easy "take-home" format and the state is in the process of reviewing and updating these handouts. The handouts are distributed at seminars, public meetings, and training sessions and are made available at the "kick-off" meeting held after a Presidential disaster. Example copies are included in Appendix G.

Hazard-Specific Technical Assistance

New Jersey State agencies increasingly maintain the best, readily available, documented information that can meet FEMA requirements for local mitigation planning. This information includes an enhanced State risk assessment for use in local mitigation plan updates, digital data such as online and digital maps for flood frequency, landslide susceptibility, peak ground acceleration, and HAZUS loss estimation information.

Technical Assistance for Local Risk Assessments

For the 2019 Plan update, hazard-specific information was organized within the vulnerability assessment for each hazard to make it more readable. The reorganization was done to make the plan more user-friendly and useful for local mitigation plans to leverage the enhancements in their plan updates. The critical facility and infrastructure dataset was also expanded to include additional types. In addition, potential losses by jurisdiction were summarized at the county level. Refer to Section 5.1 for a more detailed discussion on the information presented in the risk assessment.

Spatial Data

The NJOEM, the New Jersey Office of Information Technology, NJDEP and other State agencies involved in the development and use of natural hazards digital data are active members in the New Jersey Geospatial Forum (http://njgin.nj.gov/), and the Urban and Regional Information Systems Association (URISA). URISA is a nonprofit association of professionals using Geographic Information Systems (GIS) and other information technologies to solve challenges in State/provincial and local government agencies and departments. URISA (www.urisa.org) and its mid-Atlantic chapter serving New Jersey, and other organizations serving GIS professionals as well as the larger planning, scientific, engineering and academic communities are constantly improving their spatial capabilities and sharing it with the larger organizations. To help get this information out to the counties, NJOEM routinely shares digital data with County Emergency Management Coordinators and through these County Coordinators, to municipal emergency management agencies.

The State also has access to digital elevation for use in updating the flood maps for the Counties, in the form of LiDAR (Light Detection and Ranging). LiDAR is a high-accuracy, high-resolution digital mapping of

surfaces. For our purposes, LiDAR was used to collect outdoor digital surfaces over all of New Jersey and develop a Digital Elevation Model (DEM) of the state. A DEM is a digital model of the earth's surface. The surveys include:

- Topographic LiDAR from the water line landward, with one meter posting between elevation measurements. Hydrographic LiDAR from the water line seaward 1,000 meters (or to a depth the LIDAR can no longer detect bottom due to turbidity) with five meter posting between elevation measurements
- Digital imagery with 20-centimeter (approximately eight inch) pixel resolution.

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FEMA has set specifications on how to collect LiDAR data for flood hazard mapping. The LiDAR flown for the entire state will allow, at a minimum, development of a 10 feet or 3M DEM. A 2M or 1M-resolution DEM is feasible in many areas. Burlington and Camden Counties were re-flown in 2011 but were only fully processed in low lying areas in the vicinity of stream channels. A 2014 NE New Jersey, Post Sandy supplemental 1M DEM has been made available.

Technical Assistance for the Flood Hazard

In addition to hazard data, accurate and updated flood maps and data are critical tools to help communities manage land use and floodplains and to help the communities recognize where potential flooding could occur. There are both State and Federal mapping improvement initiatives going on simultaneously. Because New Jersey has suffered significantly from flooding events, the State Legislature mandated the design flood discharge used to delineate the limits of the flood hazard areas will be computed using the 100-year discharge plus 25%. This New Jersey Flood Hazard Area standard is a higher standard than FEMA's Digital Flood Insurance Map (DFIRM) standard. In addition, the State has mandated that floodway delineations must be designed to carry a 100-year (one-percent annual chance) flood without increasing the water surface elevation by more than 0.2 feet at any point. This New Jersey floodway standard is above FEMA's federal standard of a one-foot rise and has also been adopted in New Jersey for FEMA DFIRMs.

The status of FEMA's Risk Mapping, Assessment, and Planning (Risk MAP) deliverables for New Jersey counties is summarized in Section 5.6 of this Plan. The NJDEP executed a Cooperating Technical Partners (CTP) partnership agreement with FEMA on May 16, 2006. Since that time, NJDEP has become a full CTP partner with FEMA. Under the CTP agreement, the NJDEP works as a contractor to FEMA Region II on the production of both regulatory and non-regulatory Flood Risk MAP products for the State of New Jersey. Risk MAP is discussed further below and in Section 5.6 (Flood). Under the CTP program, NJDEP has a dedicated full-time and part-time production team with specialized capabilities in water resource engineering, hydrology, hydraulics, flood risk hazard mapping, geographic information systems (GIS) and land surveying.

Within the last few years the NJDEP has been working on the update of hydrology, hydraulics and flood risk hazard mapping for over 120-stream miles within the Passaic-Hackensack watershed basin. Additionally, the NJDEP has been working on updated Flood Insurance Study (FIS) and Digital Flood Insurance Rate Map (DFIRM) regulatory products for the Counties of Bergen, Salem, Cumberland, Gloucester and Camden. Non- regulatory flood Risk MAP products including Changes Since Last FIRM (CSLF), Flood Depth and Water Surface Elevation Change Grids, Flood Risk Assessments, Areas of Mitigation Interest, Primary Frontal Dune (PFD) Erosion Areas, Coastal Increased Inundation Areas, Flood Risk Database, Flood Risk Report and Flood Risk Map are being produced for selected areas of the Passaic-Hackensack watershed basin, Atlantic Coastal Counties and Delaware Bay Coastal Counties. The NJDEP has also collected building footprint information in GIS for selected areas of the Passaic-Hackensack watershed basin, Atlantic Coastal Counties and Delaware Bay Coastal Counties.

FEMA and NJDEP are providing communities with these additional tools or non-regulatory Flood Risk MAP products that can be used in planning efforts to mitigate flood risk, communicate with the public, and create a dialogue with neighboring communities about ways to reduce future flood risk. These tools include GIS datasets and maps, as well as supporting reports. The tools are not directly tied to regulatory development and insurance requirements of the NFIP but are important resources to support community planning efforts (FEMA 2014b).

The Richard Stockton College of New Jersey Coastal Research Center (CRC), Stevens Institute of Technology, Sea Grant, Monmouth University, and Jacques Cousteau National Estuarine Research Reserve of Rutgers University have partnered with FEMA and the NJDEP Bureau of Dam Safety and Flood Control to become Academic Cooperating Technical Partners. As CTPs they provides technical support, web-based outreach products, and meeting facilitation to increase public awareness of flood risks within New Jersey's coastal counties.

To support the adoption and implementation of new maps, NJDEP Flood Control provides generic model ordinances on the NJDEP website. The agency recommends and provides the appropriate model ordinance (type A, B, C, D, E or D & E) to the local officials when new maps are issued. NJDEP will often provide a custom crafted ordinance to the community in Microsoft Word format to facilitate the process. This ordinance includes municipal data, provides information regarding the Floodplain Administrator (FPA) personnel and appeal board. NJDEP provides close assistance, walking the community through the entire ordinance adoption process if necessary. In addition, the agency often conducts a county-wide ordinance workshop for communities.

During this process NJDEP recommends higher regulatory standards and provides suggested wording to add to their ordinance as needed. This work is accomplished by two staff personnel although there is no official position in Flood Control designated for this work.

In addition, NJDEP supports community participation in CRS. Specifically, when a community expresses interest in participating in the CRS program, NJDEP provides the Community (Mayor, Administrator, Councilperson, etc.) with a standard letter of interest, which the community then sends to FEMA. Once FEMA receives the letter, NJDEP schedules a meeting with the proposed CRS coordinator, to review the CRS program activities, the community information (policies, claims, neg. rated post-FIRM structures, substantially damaged structure, and the what if statement). The community then decides whether to proceed forward or not. If so, NJDEP schedules a CAV visit, reviews all the elevation certificates, the floodplain management ordinance, and any variances that were issued. In addition, NJDEP reviews the community's procedures to get a sense of their floodplain management abilities. If the community is in full compliance with the NFIP, NJDEP writes a letter confirming its status. If not, the community is required to correct the identified compliance issues, before scheduling the Insurance Organization (ISO) to assist with the application.

NJDEP is helping to promote the three newly forming CRS user's groups, which in theory will aid communities to achieve / or maintain a better class rating. NJDEP provides support during recycle visits and technical assistance during the annual re-certification process, and also throughout the year when communities are looking to improve their rankings.

Additional Resources

Table 3-3 lists hazard mitigation resources that include interactive mapping, geology, and other useful information to support vulnerability analysis and mitigation activities

Table 3-3 Hazard Mitigation Resources

Information	
/ Resource	Website
Geological Survey	http://www.State.nj.us/dep/njgs/
Mitigation Planning	http://www.fema.gov/media-library/assets/documents/25667?fromSearch=fromsearch&id=5580
Weather Related Incidents	http://www.noaa.gov/
Population	http://www.census.gov/
New Jersey State All Hazard Plan	http://www.State.nj.us/njoem/
Funding Information	http://www.State.nj.us/dep/grantandloanprograms/ http://www.State.nj.us/dca/grants/ http://www.State.nj.us/njoem/opb_mitigation.html http://www.fema.gov/government/grant/index.shtm http://www.njeit.org/ (New Jersey Environmental Infrastructure Trust)
Digital Data Collections and Mapping	New Jersey Geographic Information Network Explorer information about a diversity of digital geospatial data available for use with Geographic Information Systems software: https://njgin.State.nj.us/NJ_NJGINExplorer/index.jsp I-MAP NJDEP, an online interactive mapping system: http://www.nj.gov/dep/gis/index.html New Jersey Department of State, Office for Planning Advocacy (Formerly the Office of Smart Growth in the New Jersey Department of Community Affairs), online GIS maps and digital data: http://nj.gov/state/planning/resources-maps.html New Jersey Department of Transportation, State and County GIS maps: http://www.State.nj.us/transportation/gis/map.shtm Data.gov: http://www.data.gov/home National Spatial Data Infrastructure Geospatial Data Clearinghousehttp://www.fgdc.gov/dataandservices NJ Flood Mapper (Rutgers, JCNERR, CRSSSA, NOAA CSC): http://www.njfloodmapper.org/ Getting To Resilience (GTR) Tool (JCNERR, Barnegat Bay Partnership): http://www.prepareyourcommunitynj.org/ FEMA Region II - Coastal Analysis and Mapping Website: http://www.region2coastal.com/ FEMA Region II - Coastal Analysis and Mapping Website - Resources Page: http://www.region2coastal.com/additional-resources-1/additional-resources NOAA Digital Coast - Coastal Services Center: http://www.csc.noaa.gov/digitalcoast/ NOAA Digital Coast - Coastal Services Center: http://www.csc.noaa.gov/digitalcoast/ NOAA Digital Coast - Coastal Services Center: http://www.csc.noaa.gov/wps/portal/mapviewer FEMA Map Service Center: https://msc.fema.gov FEMA Hazard Mapping Information Platform: https://hazards.fema.gov/wps/portal/mapviewer FEMA FloodSmart Website: http://www.floodsmart.gov/floodsmart/ USGS - New Jersey Realtime Gage Networks Portal: http://waterdata.usgs.gov/nj/nwis/rt USGS - New Jersey Realtime Gage Networks Portal: http://waterdata.usgs.gov/cbra/Maps/Mapper.html
Hurricane Recovery	NJOEM Hurricane Sandy Recovery Info: http://www.state.nj.us/njoem/programs/sandy_recovery.html FEMA Hurricane Sandy Recovery Page-DR-4086: http://www.fema.gov/disaster/4086 NJDCA - New Jersey's Action Plan for the Community Development Block Grant Disaster Recovery: http://www.nj.gov/dca/announcements/sandy.html

Information / Resource	Website
Resiliency and Mitigation Resources	FEMA FloodSmart Website: http://www.floodsmart.gov/floodsmart/ NJDEP – Hurricane Sandy Resources Page: http://www.state.nj.us/dep/special/hurricane-sandy/ Association of State Floodplain Managers Website: http://www.floods.org/ New Jersey Association for Floodplain Management: http://njafm.wildapricot.org/ Nature Conservancy's Coastal Resilience Resources: http://www.coastalresilience.org/ Nature Conservancy's Coastal Resilience Network: http://maps.coastalresilience.org/network/

3.1.3 EFFECTIVENESS OF STATE SUPPORT

As noted in the sections above, the State has made a concerted effort to fully engage the local jurisdictions in mitigation through awareness, technical assistance and funding, to plan integration and implementation. In order to judge the effectiveness of the State mitigation process at the municipal level, the State developed a feedback survey. Since this was the initial attempt to capture feedback, the survey was designed to be completed in 10 to 15 minutes to gauge the global effectiveness of existing activities. It is expected that a more thorough survey will be developed during the upcoming plan period to more fully understand opportunities to improve technical support for mitigation at the municipal level.

Local floodplain administrators, code officials, planners, municipal official, and emergency managers are the primary mitigation contacts at the local level. The survey was distributed to these officials and a broad range of respondents participated. In the future, local planners will become more intimately involved in implementing hazard mitigation plans and implement mitigation initiatives. Therefore, it is recommended that future survey questions be directed specifically towards obtaining feedback from these planners, in order to more fully understand how they can effectively liaise with traditional mitigation personnel to implement mitigation initiatives.

The survey was available and distributed at the 9th annual New Jersey Association for Floodplain Management (NJAFM) Conference during a breakout session focused on the State mitigation plan update. As a statewide association with a broad membership including the target sectors, the NJAFM was asked to further distribute the survey to its entire membership (refer to Section 2). The findings of the survey indicate that the majority of the respondents believe they have adequate training and support to fulfill their role with respect to mitigation. Refer to Appendix W for a full summary of survey response. Approximately half of respondents indicated that:

- There is appropriate participation from community officials (planning, engineering, code enforcement) in the development or update of the local hazard mitigation plan
- FEMA has provided adequate support and guidance during the plan development or update
- The county has provided adequate support in the review of mitigation strategies
- Adequate notification of available mitigation grant opportunities, and adequate guidance and support is given.

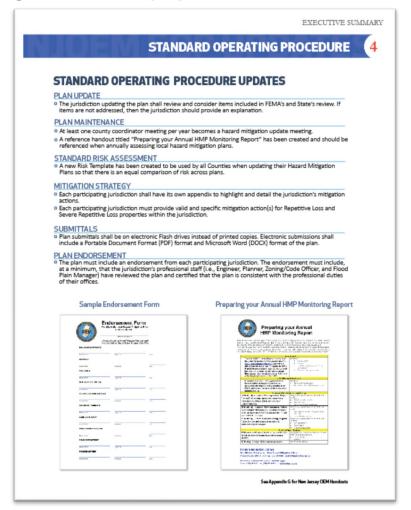
This survey was not distributed to the entire target audience, but it gives an indication that the State has been successful in providing technical support to a significant percentage of the mitigation community.

3.2 LOCAL PLAN REVIEW, COORDINATION AND LINKAGE TO THE STATE PLAN

NJOEM Standard Operating Procedure Updates

In Coordination with the State HMP Update, NJOEM is updating their Standard Operating Procedure (SOP). The purpose of the SOP is to establish policy and procedures for the most efficient operation of the New Jersey Office of Emergency Management Hazard Mitigation Planning Section. The NJOEM is available in appendix I and Figure 3-1 provides highlights of the updates to the SOP. Highlights of updates are also mentioned throughout the rest this section as they are relevant.

Figure 3-1 Selected Highlights to the SOP Update



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.

Update:44 CFR 201.4(d):[The] plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities...

Progress in mitigation efforts is evidenced by a number of grants the State has funded during the performance period of this plan and as summarized in Section 3.1 of this document. The State has supported funding of all countywide plan updates and is actively involved in educating the grantees in enhancing municipal plan integration. Additionally, the State will continue to work with the Department

of State Office for Planning Advocacy to ensure that vulnerability assessments in mitigation plans will be integrated in state and local level master plans.

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

As part of the 2019 Plan update process, a summary of the available local plan legal and regulatory capability information was developed and is included in Appendix J. The purpose of this exercise was to perform a baseline assessment on how local capabilities are captured in local HMPs and to integrate the data into the 2019 Plan update. If the information was not available in the local HMP, entries are blank for that local jurisdiction in Appendix J. In other words, blank entries should not be interpreted that the capabilities do not exist; they were just not readily available in the local HMP. For example, there are jurisdictions across the State that have Flood Damage Prevention Ordinances by virtue of the fact they are participants in the NFIP, however, if not indicated in the local HMP it is not reflected in Appendix J.

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

In this Plan Update all county plans were reviewed for identified hazards, as well as, how each plan measured vulnerability and risk for each hazard. Overall, no consistent methodology was used to assess vulnerability across local HMPs. No consistent critical facility or building data set was used to estimate potential risk. Through this research, a Standardized Risk Template Tool was created and adopted as part of the NJOEM's SOP.

Going forward this tool will be used by counties as they update their local plans, so that losses and vulnerability will be assessed using the same factors across all counties. This template is available as a handout in appendix G of the State HMP Update and below in Table 3-4.

Table 3-4 New Jersey State Hazard Mitigation Plan 2019 Standardized Risk Template for Multi-Jurisdictional Mitigation Plans

TYPE	HAZARDS IN	MINIMI IM RISK ANALYSIS	REFERENCES:
	STATE HMP	HAZARD PROFILE	HEI ENERGES.
Nature- based Hazards	Coastal Erosion and Sea Level Rise	MINIMUM RISK ANALYSIS HAZARD PROFILE Sea level Rise - GIS analysis using NOAAs Sea Level Rise inundation data¹ to evaluate Sea level Rise scenarios using Rutgers Science and Technical Advisory Panel (STAP) Report's² projected SLR estimates of 1FT for the year 2050 and 3FT for the year 2100. Provide housing units, population and critical facilities at risk to sea level rise. Replacement value of structures should be calculated if available. Coastal Erosion - GIS analysis calculating the proportion of a parcel or census block lying within 120 feet of 'beach' or 'erodible' shoreline. Provide housing units, population and critical facilities at risk to sea level rise. Replacement value of structures should be calculated if available.	1) NOAA Sea Level Rise Viewer: https://coast.noaa.gov/digitalcoast/tools/slr.html 2) Kopp, R.E., A. Broccoli, B. Horton, D. Kreeger, R. Leichenko, J.A. Miller, J.K. Miller, P. Orton, A. Parris, D. Robinson, C.P. Weaver, M. Campo, M. Kaplan, M. Buchanan, J. Herb, L. Auermuller and C. Andrews. 2016. Assessing New Jersey's Exposure to Sea-Level Rise and Coastal Storms: Report of the New Jersey Climate Adaptation Alliance Science and Technical Advisory Panel. Prepared for the New Jersey Climate Adaptation Alliance. New Brunswick, New Jersey: Rutgers University.

TYPE	HAZARDS IN	MINIMUM RISK ANALYSIS	REFERENCES:
	STATE HMP	HAZARD PROFILE	HEI ENERGES.
	Dam and Levee Failure	Dam Failure - Qualitative and Quantitative analysis of previous events and potential impacts from dam failure. Provide a count of housing units, population and critical facilities at risk. Estimate risk based on the proportion of parcel area within the estimated inundation area from a dam's Emergency Action Plan (EAP). If a dam's EAP is unavailable, then the inundation area can be estimated using a 1.5-mile radius buffer downstream of each dam. Replacement value of structures should be calculated if available. Levee Failure – GIS analysis – Count of housing units, population and critical facilities within the Levee Impact Area delineated on the FIRM (e.g. X Protected, X Shaded, AR, A99, or AE) or where an area is not easily identified, a 1,000 ft buffer around each levee. Replacement value of structures should be calculated if available. For both, also provide a qualitative and quantitative analysis of previous events and potential impacts. Record losses to life and property if available.	1) New Jersey Department of Environmental Protection. Bureau of Dam Safety https://www.nj.gov/dep/damsafety/about.htm
	Drought	Provide a qualitative and quantitative analysis of previous droughts and potential impacts. Record losses to life and property if available. Potential Impacts may include: Groundwater Impacts: Quantitative analysis of groundwater wells ¹ , and qualitative analysis using previous occurrences and impacts.	1) NJ Private Well Testing Act Data - https://www.nj.gov/dep/dsr/pwta/index.htm 2) U.S. Agricultural Census https://www.agcensus.usda.gov/

TYPE	HAZARDS IN STATE HMP	MINIMUM RISK ANALYSIS HAZARD PROFILE	REFERENCES:
	Drought	Crop Failure due to drought- Quantitative analysis of agriculture impacts based on census of agriculture ² market value of products sold (by county) and agriculture land area by jurisdiction.	
	Earthquake	Provide a FEMA Hazus Level 2 probabilistic analysis for 100, 500 2500 year mean return period (MRPs).	1) FEMA Hazus https://www.fema.gov/hazus
	Flood	Riverine (inland) and Coastal flooding: Provide a FEMA Hazus Level 2 Analysis – estimated potential losses for 1 percent annual chance flood. Provide Hazus generated loss information. Replacement value of structures should be calculated if availableProvide Qualitative and Quantitative analysis of previous events² and potential impacts. Record losses to life and property if available. Ice Jams: Qualitative and Quantitative analysis of previous events² and potential impacts. Record losses to life and property if available. Stormwater Flooding: Qualitative and Quantitative analysis of previous events³ and potential impacts. Record losses to life and property if available. Tsunamis: Qualitative and Quantitative analysis of previous events⁴ and potential impacts. Record losses to life and property if available. Tsunamis: Qualitative and Quantitative analysis of previous events⁴ and potential impacts. Record losses to life and property if available.	1) FEMA Hazushttps://www.fema.gov/hazus2) United States Army Cold Regions Research and Engineering Laboratory's (CRREL) database of ice jams http://icejams.crrel.usace.army.mil/3) NOAA National Centers for Environmental Informationhttps://www.ncdc.noaa.gov/4) National Tsunami Hazard Mitigation Programhttps://nws.weather.gov/nthmp/

TYPE	HAZARDS IN STATE HMP	MINIMUM RISK ANALYSIS HAZARD PROFILE	REFERENCES:
	Geological Hazards	Landslides: For the counties of Bergen, Essex, Hudson, Middlesex, Monmouth, Morris, Passaic, Somerset, and Union perform a GIS analysis using landslide susceptibility data should be used¹ to identify areas vulnerable to landslides. Provide count of housing units, population and critical facilities at risk to landslides. Replacement value of structures should be calculated if available. Subsidence/Sinkholes/abandoned mines & quarries: GIS analysis using known location² of sinkholes, caves, abandoned mines, and abandoned and operating quarries to identify potential hazard areas. NJGWS-created spatial data set identifying the location of carbonate bedrock throughout the state to identify potential hazard areas for subsidence and sinkholes. Provide count of housing units, population and critical facilities at risk. Replacement value of structures should be calculated if available. For both, provide a qualitative and quantitative analysis of previous events and potential impacts. Record losses to life and property if available.	1) Soil, Liquefaction and Landslide Susceptibility in New Jersey https://www.njgeology.org/geodata/dgs15- 2.htm 2) NJDEP Division of Water Supply and Geoscience https://www.nj.gov/dep/njgs/
	Hurricane and Tropical Storms	Provide a FEMA Hazus analysis for Hurricanes to determine annualized losses from wind damage. Analysis should be performed for the 100- and 500- year mean return periods (MRPs). Provide a qualitative and quantitative analysis of previous events and potential impacts. Record losses to life and property if available.	1) FEMA Hazus https://www.fema.gov/hazus

TYPE	HAZARDS IN STATE HMP	MINIMUM RISK ANALYSIS HAZARD PROFILE	REFERENCES:
	Nor'easters	Qualitative and Quantitative analysis of previous events ¹ and potential impacts including historic information on previous event occurrences and losses should be recorded and analyzed.	1) NOAA National Centers for Environmental Information https://www.ncdc.noaa.gov/
	Severe Weather	Thunderstorms: Qualitative and Quantitative analysis of previous events¹ and potential impacts. Record losses to life and property if available.Extreme Temperatures: Qualitative and Quantitative analysis of previous events¹ and potential impacts. Record losses to life and property if available.High Winds: Qualitative and Quantitative analysis of previous events¹ and potential impacts. Record losses to life and property if available.Tornadoes: Qualitative and Quantitative analysis of previous events¹ and potential impacts. Record losses to life and property if available.Tornadoes: Qualitative and Quantitative analysis of previous events¹ and potential impacts. Record losses to life and property if available.	1) NOAA National Centers for Environmental Informationhttps://www.ncdc.noaa.gov/
	Severe Winter Weather	Heavy Snow and Blizzards: Qualitative and Quantitative analysis of previous events¹ and potential impacts. Record losses to life and property if available. Ice Storms: Qualitative and Quantitative analysis of previous events¹ and potential impacts. Record losses to life and property if available.	1) NOAA National Centers for Environmental Information https://www.ncdc.noaa.gov/

TYPE	HAZARDS IN STATE HMP	MINIMUM RISK ANALYSIS HAZARD PROFILE	REFERENCES:
	Wildfire	GIS analysis - GIS analysis of NJ Forest Fire Service Fuel hazard areas overlaid. Provide count of housing units, population, and critical facilities vulnerable to wild fire. Replacement value of structures should be calculated if available Also provide a qualitative and	New Jersey Forest Fire Service Fuel Hazards and Fire Risk: https://www.state.nj.us/dep/parksandforests/fire/wildfire_hazard_mitigation.htm
		quantitative analysis of previous events and potential impacts of wildfire. Record losses to life and property if available.	
	Animal Disease	Qualitative and Quantitative analysis of previous events ^{1,2} and potential impacts. Record losses to life and property if available.	New Jersey Department of Health and Human Services New Jersey, the Department of Agriculture (NJDA), Division of Animal Health
	Civil Unrest	Qualitative and Quantitative analysis of previous events and potential impacts. Record losses to life and property if available.	New Jersey State Hazard Mitigation Plan
Human- based Hazards	Crop Failure	Qualitative and Quantitative analysis of previous events ¹ and potential impacts. Record losses to life and property if available.	1) United States Department of Agriculture, Farm Service Agency, New Jersey https://www.fsa.usda.gov/state-offices/New- Jersey/index#Crop_Damage
	Cyber Attack	Qualitative and Quantitative analysis of previous events and potential impacts. Record losses to life and property if available.	New Jersey State Hazard Mitigation Plan
	Economic Collapse	Qualitative and Quantitative analysis of previous events and potential impacts. Record losses to life and property if available.	New Jersey State Hazard Mitigation Plan
	Fishing Failure	Qualitative and Quantitative analysis of previous events and potential impacts. Record losses to life and property if available.	New Jersey State Hazard Mitigation Plan

TYPE	HAZARDS IN MINIMUM RISK ANALYSIS STATE HMP HAZARD PROFILE		REFERENCES:
	Hazardous Substances	Hazardous Substance Fixed Site: Qualitative and Quantitative analysis of previous events ^{1,2} and potential impacts. Record losses to life and property if available Hazardous Substance In- transit: Qualitative and Quantitative analysis of previous events ³ and potential impacts. Record losses to life and property if available	1) EPA, Superfund Sites https://www.epa.gov/superfund 2) NJDEP Known Contaminated Sites https://www.state.nj.us/dep/srp/kcsnj/ 3) USDOT
	Nuclear Hazards	GIS analysis calculating the population, housing units, and critical facilities at risk within 2.5-, 5- and a 10-mile buffer of active nuclear power plants. Replacement value of structures should be calculated if available	New Jersey State Hazard Mitigation Plan
	Pandemic	Qualitative analysis using previous occurrences and impacts of outbreaks. Record losses to life and property if available	New Jersey State Hazard Mitigation Plan
	Power Failure	Qualitative and Quantitative analysis of previous events ¹ and potential impacts of power failure. Record losses to life and property if available	1) NOAA National Centers for Environmental Information https://www.ncdc.noaa.gov/
	Terrorism	Qualitative analysis using previous occurrences and impacts terroristic attacks. Record losses to life and property if available	New Jersey State Hazard Mitigation Plan

3.2.2 STATE HAZARD MITIGATION POLICY STRATEGY

A mitigation plan is a demonstration of the commitment to reduce risks from natural hazards and serves as a strategic guide for decision makers as they commit resources. The mitigation planning process includes hazard identification and risk assessment. These allow the development of a comprehensive mitigation strategy for reducing risks to life and property and include an action plan identifying which local mitigation activities will be prioritized, implemented, and administered. Ready and operational HMPs are the foundation for effective hazard mitigation.

Full FEMA guidance regarding the need for a HMP is contained in the Hazard Mitigation Assistance Unified Guidance available on the www.FEMA.gov website.

Per *44 CFR 201.3(c)(4),* up to 7% of the Grantee's HMGP ceiling (planning set-aside) may be used for mitigation planning activities.

The State of New Jersey is committed to supporting the development of local mitigation plans that are ready for implementation. The Mitigation Unit will work with both county and municipal governments to ensure that they have a ready, operational, approved, adopted, and integrated HMP. The HMP will

describe sound and beneficial projects to alleviate the impacts of all disasters and not just limited to flooding alone. Specific strategies will include the following:

- Facilitate comprehensive mitigation planning by reiterating the State's recognition of the
 importance of maintaining a ready, operational, and approved HMP and to clearly state New
 Jersey's intentions to use HMGP planning set-aside for the preparation of updated mitigation
 plans. This will identify and reduce risks from hazards, serve as a strategic guide for decision
 makers as they commit resources, and maintain eligibility to receive federal funding under all
 FEMA Hazard Mitigation Programs.
- Recognize the need for mitigation on properties determined to be substantially damaged by elevating actions. Mitigation would address substantially damaged properties impacted by damage of any origin whereby the cost of restoring the building to its before-damaged condition would equal or exceed 50% of the market value before the damage occurred. Implementation of these priority efforts may include: encourage training of the declaring officer; have the local declaration made as soon as possible; and provide "high priority" to funding applications that will resolve the issue.
- For acquired properties in flood-prone areas, recognize the need for a watershed-based approach to enhance natural floodplain functions by identifying areas suitable for restoration, devising funding methodologies to maximize ecological services, enhancing blue infrastructure, and using acquired properties to assist in the overall hazard mitigation strategy. This strategy will also be included in the score sheet and consideration should be given to increasing score.

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

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

All independent Subdivisions of the State of New Jersey, inclusive of but not limited to, Authorities, Commissions, and Utility Authorities, will be encouraged to participate at the local county level. However, all such entities will be considered covered by the State Hazard Mitigation Plan and eligible to apply for HMGP funding for critical facilities or for facilities that support the goals of the State Hazard Mitigation Plan.

For multi-use facilities, inclusive of but not limited to, schools that serve as shelters, will be encouraged to participate and shall be considered eligible for HMGP funding if the local jurisdiction (municipality) has participated.

All eligible not for profit organizations (per *44CFR 201.6*), shall be encouraged to participate at the local hazard mitigation plans if and when appropriate, but will be considered covered by the State Hazard Mitigation Plan and eligible to apply for HMGP funding for critical facilities or for facilities that support the goals of the State Hazard Mitigation Plan.

3.2.1 PLAN REVIEW

Local mitigation plans represent commitments to reduce risks from natural hazards and serve as the basis for the State to provide technical assistance and prioritize project funding. As of November 1, 2004, a local government must have a FEMA-approved mitigation plan to receive HMGP and most Hazard Mitigation Assistance project grants. This requirement can be satisfied when a jurisdiction is included in a regional or countywide plan. The requirement to have a FEMA-approved plan also applies to the funding under the Unified Hazard Mitigation Assistance (HMA) program. The previously Repetitive Flood Claims Program (RFC) did not require a FEMA-approved plan; however, this program was eliminated by the

Biggert Waters Flood Insurance Reform Act of 2012. FEMA requirements for local plans were established in 44 CFR 201.6(d). They require that "plans must be submitted to the State Hazard Mitigation Officer for initial review and coordination. The State will then send the plan to the appropriate FEMA Regional Office for formal review and approval." While the local HMPs, in effect, become extensions of the State HMP, there is no explicit authority in Executive Order #115 (Florio) for the State Hazard Mitigation Officer (SHMO) to approve local HMPs. Therefore, the SHMO's role is interpreted to include the following, based on initial review and coordination:

- A finding that the local plan includes all of the elements required by FEMA at 44 CFR 201.6(b) & (c)
- A finding that the local plan adequately addresses all of the required elements in accordance with FEMA guidance documents and planning requirements; and A finding that the local plan does not conflict with provisions of the HMP or defines reasonable measures by which to be reconciled with the HMP at the next HMP update.

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- NJOEM provides jurisdictions with a plan review timetable and requirements. NJOEM is updating
 their Standard Operating Procedure to require two flash drives or internet-based submission of
 plans and appendices. NJOEM staff uses the FEMA Mitigation Plan Review Tool in its review, to
 ensure that all requirements are met. State staff will have 60 days to review the HMP. After the
 review, the State either:
- Returns the draft plan to the jurisdiction, with required revisions, or Informs the municipality or county that, per State review, the plan satisfied the FEMA checklist requirements and will be forwarded to FEMA Region II for review If substantial improvements are required, the timeframe is re-initiated. If there are minor improvements, the staff will review in 20 days. Figure 3-5 shows the normal review timeframes. The State has reviewed most of the active plans. These timelines and procedures have worked, with turnaround time far below the stated review period, but are subject always to change during and after the declaration of major disasters.

Only in extreme circumstances (i.e., eminent expiration dates) will a joint review occur. A joint NJOEM-FEMA review procedure is recommended to occur only in such instances of extreme circumstances to expedite the process for plan reviews when multi-hazard mitigation plans are nearing their expiration upon submittal for review by NJOEM.

Figure 3-2 NJOEM Schedule of Review for Local Hazard Mitigation Plans

ELEMENT	Initial Draft Plan Delivered to NJOEM (1 hard copy, Tool and 1 CDs)	Plan Review – Requirements Not Met	Plan Review - Minor changes	Plan Review – Requirements Met – Revised Draft Plan Delivered to NJOEM (2 hard copies, Tools and 2 CDs)	Plan Review – Requirements Not Met	Plan Review - Minor changes	Plan Review – Requirements Met
SCHEDULE	NJOEM has 60 days to review. NJOEM provides an end date to the municipality. Initial plan is reviewed and all requirements and recommendations are transmitted to the jurisdiction noted on the crosswalk.	NJOEM reviews draft and requirements are not met. Once the municipality submits the revised plan to NJOEM, the 60-day review begins and NJOEM provides an end date to municipality.	NJOEM reviews revised draft within 20 days of receipt.	NJOEM informs the municipality the State review is complete and forwards the draft for FEMA Region II review.	FEMA will review plans within 45 days (whenever possible) from receipt of draft. If requirements are not met, FEMA provides NJOEM with a detailed explanation and provides recommended revisions. NJOEM has 45 day to inform the municipality in writing about the plan and the State review process starts again.	FEMA will review plans within 45 days (whenever possible) from receipt of draft. FEMA will notify NJOEM that requirements are not met. Once the municipality submits the revised draft, NJOEM reviews the draft within 20 days of review.	FEMA will review plans within 45 days (whenever possible). If requirements are met, FEMA approves the plan and informs NJOEM. NJOEM informs the municipality in writing that the plan is approved.

The SHMO will notify the plan participants of FEMA's approval, provide copies of the approved local HMP (in print or digital format) as requested.

After local plan approval, NJOEM requires an annual review of approved plans by the originating agency to monitor and support the implementation of the plans and mitigation projects. A summary report prepared by each jurisdiction will be received by the state and incorporated as detailed in Sections 6 and 7 of this plan. In addition, the State will incorporate actions identified in the approved plans into the State's plan per the state plan maintenance procedure described in Section 9. While available for support upon request, due to the extreme demands that recent declared disasters have the State has not provided monitored annual local plan reviews during this reporting period due to lack of resources. This has resulted in minimal statewide compliance with this requirement. Currently, only one HMP, the Somerset County Plan, has been consistently updated. This information is available at the state and provides a format for future plan updates. With the incorporation of new operating and maintenance procedures as noted in Sections 6 and 7 of this Plan, the state anticipates a more thorough integration of local plan mitigation strategies into the state plan in this planning period. The State intends, through implementation of a mitigation action to review plan progress using an online system, to provide feedback and support as necessary to counties and local government, and to assign the responsibility for integration of local plan components into the state plan to specified personnel. This will also facilitate the integration of local project status into the State plan electronically.

3.2.2 COORDINATION OF LOCAL PLANNING REQUIREMENTS-PLAN REVIEW ELEMENTS

Since 2008, New Jersey and FEMA have reviewed and approved HMPs that include 86% of the local governments and 91% of the State's population. With the 2013 approval of the Ocean County HMP there has been 100% county participation and nearly 90% participation by local governments. Based on lessons learned from the initial review of plans and the resulting mitigation projects, new plan review elements have been developed by NJOEM that both simplify and better define the way mitigation plans are reviewed. The Federal enabling legislation and the elements of the CFR governing the mitigation set the minimum standards. The Federal legislation and regulations have not changed. New guidance developed by FEMA and implemented by NJOEM will:

- Enhance the plan review process and to increase the focus on statewide risk reductions and plan implementation
- Promote greater alignment with the intent of the Federal law and regulation and the objectives of New Jersey's risk reduction goals
- Encourage expanded local involvement in shaping New Jersey's disaster mitigation planning program and the determining the appropriateness of mitigation project development and funding

Section 322(b), Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, 42 USC 5165 directs local mitigation plans to describe hazard mitigation actions and establish a strategy to implement those actions. The *44 CFR 201.6(c)(3) (i) through (iv)* and *201.(c)(4)(ii)* states that the plan shall include a mitigation strategy that provides the jurisdiction's blueprint for reducing potential losses ... and include a process by which local governments incorporate the requirements of the plan into other planning mechanisms.

The revised FEMA Local Mitigation Plan Review Guide and the FEMA Local Mitigation Plan Review Tool area available on line at www.FEMA.gov. These guides replace replaces the previous "Blue Book."

Many New Jersey counties are presently in the process of updating their approved plan based on the five-year renewal cycle. During this time, it is important to remember that the mitigation planning

regulations have not changed; the plan requirements remain the same. However, in some instances the "broad" Federal requirements have been refined to better reflect conditions in New Jersey. In instances where such additional and refined information is required, the federal requirement and CFR reference will be addressed as needed within county plans.

As required in the updated FEMA review guidance, a FEMA Review Checklist shall be provided to compile FEMA comments and approvals of submitted local hazard mitigation plans.

Identification of Mitigation Projects

44 CFR 201.6(c)(ii and iii): [The mitigation strategy shall include] a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered ... and an action plan describing how the actions identified will be ... implemented ...

The State of New Jersey requires identification of mitigation activities as an essential element of a local plan review. Information on the status of long-range mitigation strategies shall be contained in the original plan. Self-funded mitigation initiatives as well as past FEMA funded projects should be documented.

For easy cross-reference, a listing of FEMA-funded mitigation projects shall be listed in the FEMA Review Checklist. Supplemental information that covers, what, when, and how mitigation projects were implemented since plan adoption should be included as part of the mitigation action prioritization and implementation section of the plan.

In addition, an indication of how mitigation actions are linked to other planning and operational activities is required as part of the identification of mitigation projects.

An example of reporting funded projects is provided in Table 3-8 below.

Table 3-5 Example of Reporting Funded and Independent Mitigation Projects

		Status (ye		Funding	Relationship
Type of M	litigation Project	Approved/Activ	Complete	Source	to Plan
County Name	Participation in All Hazard Mitigation Plan Update	2015	2017	75,000 Local 225,000 FEMA 300,000 Total	Provided local \$10,000 share of plan update through
	Elevation of 6 flood- prone residential structures	2014	2018	25,000 Local 75,000 FMA 100,000 Local	In the plan
	Shelter improvements including air conditioning and cable connection	2016	2017	Use of local Capital Improvement Funds	Immediate action needed. Not in plan. Identified
Municipality	Storm water collection system improvement at	2014	2016	75,000 Local 225,000 HMGP 300,000 Total	In the plan as Mill River flood
	Culvert enlargement improvements at MainStreet between 1 St and 4 th Streets	2014	2015	100,000 Local 300,000 PDM 400,000 Total	Not in the plan

LOI – Equipment Purchase: Wood Chipper-Power Tek	Not Eligible	Not eligible	10,500 Local 3,500 FEMA 14,000 Total	Not eligible
LOI – acquisition of two properties	2015		200,000 Local 600,000 SRL 800,000 Total	Funding now under consideration

Source: NJOEM 2013

Identification of Local Jurisdiction Mitigation Contacts in Plan's Development

44 CFR 201.6(c)(1): [The plan shall document] the planning process used . . . including who was involved

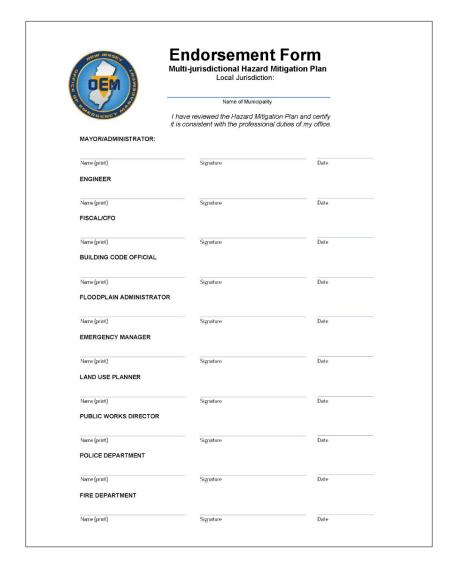
. . .

The State of New Jersey requires identification of mitigation plan participants. The sample table, Table 3-9, suggests the offices and agencies that should be included in the planning process (from initiation to adoption). The sample table also includes how they were informed of the plan's development (meeting notifications, update e-mails, progress reports, etc.). Similar information should be included for appropriate county officials.

Potential plan participants should be kept informed of the planning process. A comprehensive mailing list should identify all potential stakeholders. The list should be open-ended whereby additions can be made, and notices of all plan developments should be sent to all the stakeholders. The stakeholder who was invited to the first meeting but could not attend should not be dropped from the notifications and should be kept informed throughout the planning process. Stakeholders should include the following:

- Local Management including Mayor, Administrator, Clerk, Engineer, and Attorney (Management) Ties all local programs together. Should be encouraged to participate in the planning process.
- Building Code Official Assures compliance of development by incorporating mitigation elements against tornadoes, earthquakes, and other hazards.
- Emergency Manager Is the point of contact in the plan development, project selection, and application submission.
- Fiscal and Budget Officer Identifies local funding sources for projected projects.
- Floodplain Manager Controls the use and expansion adjacent to flood prone areas.
- Land Use Planner Has familiarity with potential development from the onset of the project and includes zoning, traffic, population growth estimations, park and open space.
- Public Works Director Has the on-the-ground experience of actual hazard events.
- As part of the update to the NJOEM Standard Operating Procedure (SOP), Staff and officials of jurisdictions participating in the plan will be required to endorse the plan to certify it is consistent with the professional duties of their office. Figure 3-2 illustrates the format of this form. The form is available as a handout in Appendix G.

Figure 3-3 New Endorsement form required as part of the NJOEM SOP update



The involvement of local officials shall also be documented using the following tracker illustrated in Table 3-6, to be included in the mitigation plan.

Table 3-6 Example of Tracking Participation and Municipal Participation Documentation

	Subject of Meeting Notice, Emails, etc.*		Building Code Official	Emergency Manager	Financial Budget Officer	Floodplai n Manager	Etc.
1.	Kick-Off Meeting Invitation Sent	1/12/12	Υ	Υ	Υ	Υ	
2.	Attendance at Meeting Kick-Off	2/8/12	Υ	N	Υ	Υ	
3.	Agenda for Meeting Sent	2/12/12	Υ	Υ	Υ	Υ	
4.	Email Announcement to Meeting 2	2/15/12	Υ	Υ	Υ	Υ	
5.	Attendance Meeting 2	2/18/12	Υ	Υ	N	N	
6.	Etc.						

Source: NJOEM 2013

Updating and Reporting on Strategy and Mitigation Actions

The following methodologies are recommended for use in updating and reporting of the status of mitigation strategies and actions proposed in the HMP:

- Step 1 regarding reporting on stated mitigation actions: Follow-up by the local jurisdiction will be required by NJOEM on local mitigation actions included in previous plans. The local jurisdiction shall comment on:
 - How existing authorities, policies, program, and resources were affected
 - How authorities, policies, program, and resources have been altered by recent disasters, changing land uses, and new or proposed developments
 - How and if the stated mitigation actions were met or are being addressed
 - How the strategy action was incorporated into other local plans and programs
 - How funding of proposed future strategy actions are being incorporated into the local funding programs or the capital funding budget
- Step 2 regarding the development of new mitigation actions: The local government shall demonstrate the relevance of the stated action to specific local conditions. When a consultant is used to assist in the Plan's development, the mitigation action shall reflect local needs and response to local conditions. Broadly stated, universally applicable mitigation actions are not considered a reflection of local jurisdictional needs and generic actions will not meet the minimum state requirement. The local jurisdiction shall comment on:
 - How existing authorities, policies, program, and resources will be affected
 - How authorities, policies, program, and resources will be altered by recent disasters, changing land uses and new or proposed developments
 - What agency would fulfill the action
- Step 3 Each participating jurisdiction will have an appendix in the plan that highlights and details their Mitigation actions.

44 CFR 201.6(c)(3)(ii): The mitigation strategy section shall include] a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and structures and CFR Reference:

§201.6(c)(3)(iii): an action plan describing the actions identified in section (c)(3)(ii) will be prioritized, implemented and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed project and their associated costs.

NJOEM already requires reporting on mitigation action accomplished and will require continuity on the disposition of previously stated strategy items and reporting on the successful completion of new strategy items.

Eligibility Based on Participation in a Plan

44 CFR 201.6(c)(1): [The plan shall document] the planning process used ... including who and in accordance with the Requirement of the New Jersey State Hazard Mitigation Plan and 44 CFR 201.6(c)(1): to be eligible for hazard mitigation project funding:

- All independent Subdivisions of the State of New Jersey, inclusive of but not limited to, Authorities, Commissions, and Utility Authorities, are encouraged to participate at the local county level. However, all such entities are considered covered by the State Hazard Mitigation Plan and eligible to apply for HMGP funding for critical facilities or for facilities that support the goals of the State Hazard Mitigation Plan.
- Unless local municipalities specifically opt out, all State led mitigation actions in support of the State's NFIP policy or other State led efforts, inclusive of but not limited to, acquisitions, elevations, and energy resiliency, shall be considered to be covered by the State Hazard Mitigation Plan. To further facilitate these efforts, the State requires all counties to include this action in their local mitigation plan, by providing suggested language that describes supporting State led efforts.
- Multi-use facilities, inclusive of but not limited to schools that serve as shelters, are encouraged to participate and shall be considered eligible for HMGP funding if the local jurisdiction (municipality) has participated.
- All eligible not for profit organizations, shall be encouraged to participate in the local hazard mitigation plans if and when appropriate, but are considered covered by the State Hazard Mitigation Plan and eligible to apply for HMGP funding for critical facilities or for facilities that support the goals of the State Hazard Mitigation Plan.

Regional and Stakeholder Involvement

44 CFR 201.6(b)(2): An open public involvement process in the development of an effective Plan ... an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia, and other private and non-profit interest to be involved in the planning process.

NJOEM will require evidence that the planning process accounts for local and regional participation. The types of jurisdictions and agencies to be involved in addition to how to engage them are provided in Table 3-7.

Table 3-7 Regional and Stakeholder Involvement

Stakeholders	Method of Action/Involvement
Neighboring communities	Notification by the county to bordering municipalities in other counties
Regional agencies (regional commissions, watersheds)	Invite regional planning commissions, watershed associations, administrators of the county and municipal Open Space Tax funds, and utility and sewer authorities to participate in the HMP planning process, and keep these agencies informed of plan developments.
Regulatory agencies (authorities)	Utility and sewer authorities should be identified, invited to participate and kept informed of plan developments.
Business	Establish criteria based on companies of X size (# of employees) in each municipality.
Academia	All land holding colleges and universities should be identified to participate and kept informed of plan developments.
Private and non-profits	Perform outreach to service agencies, conservation groups, historic associations, invite them to participate, and keep them informed of plan developments.

3.2.3 MONITORING, EVALUATING, UPDATING AND INTEGRATION/PLANMAINTENANCE ELEMENTS

The following series of local coordination elements will be required and have been developed from various multi-jurisdictional (county) local plans submitted to and approved by NJOEM and FEMA. The emphasis is to put into operation those items outlined in the approved HMPs as specific NJOEM requirements. In all of the 20 approved multi-jurisdictional plans, the county is identified as the organization responsible for monitoring, updating, and evaluating the plan, and continuing to act as the coordinator of the mitigation planning effort. In the few single jurisdictional plans the same requirements are applicable.

Monitoring the Local Hazard Mitigation Plan

44 CFR 201.6(c)(4)(i) states: The plan maintenance process shall include a section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

To accomplish this objective, most of the local plans reviewed and approved by NJOEM and FEMA state that annual meetings will be held as described in FEMA How-To #4 (FEMA 386-4), Worksheet #1, Progress Report. NJOEM considers monitoring the local HMP as important step in mitigation planning process necessary in bringing the hazard mitigation process to life. During those scheduled meetings the lead agency (usually the county) will lead the discussion of progress and address the following suggestions:

Regarding projects:

- Has the hazard mitigation action(s) for which local jurisdiction is responsible been accomplished? If not, why? If so, how?
- Are the responsible agencies/entities responsible for implementation the same?
- Is the mitigation action in process? If so, describe stage of work along with timelines and sources of funding (milestones should be included);
- Were permits or approvals necessary to implement the action?
- Have new projects been identified as a result of recent hazard events?

Regarding incorporation into day-to-day operations:

- How have the actions been incorporated within the organization?
- How was the mitigation duty/duties assigned to agency?
- What issues hinder incorporation or implementation?

Evaluating the Approved Plan

44 CFR 201.6(c)(4)(i) states: The plan maintenance process shall include a section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

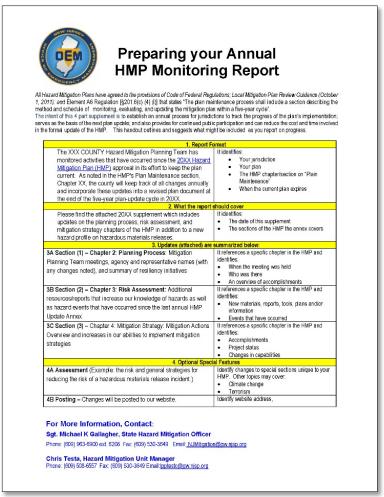
To accomplish this objective, most of the plans reviewed and approved by NJOEM and FEMA state that annual meetings will be held as described in FEMA How-To #4 (FEMA 386-4) in:

- Worksheet # 2 Evaluating Your Planning Team
- Worksheet # 3 Evaluating Your Project Results
- Worksheet # 4 Revisiting Your Risk Assessment

NJOEM considers evaluating the Plan an important step in mitigation planning process necessary to bring the hazard mitigation process to life.

After approval and adoption, the hazard mitigation plan should be evaluated on a regular basis in order to track progress and assess the effectiveness of the plan's implementation. At least one county coordinator meeting per year becomes a hazard mitigation update meeting. During scheduled monitoring meetings, the lead jurisdiction will lead the discussion of progress and address key implementation and plan maintenance issues. Figure 3-4 highlights the suggested format for an annual HMP Monitoring report. This handout is available in Appendix G. This process shall be used to incorporate changes that may affect the mitigation priorities.

Figure 3-4 NJOEM Handout on Preparing your annual HMP Monitoring Report



To accomplish this objective, progress reports should be submitted in sufficient time to be properly reviewed prior to the annual monitoring meeting. They will be reviewed based on the following criteria:

- Regarding proposed goals, objectives and actions/strategies:
 - Do the stated goals and objectives address current and expected conditions?
 - Has any newly available relevant data been included?
 - Has the nature and magnitude of risks changed?
 - Are the current resources appropriate for implementing the plan?
 - Have any implementation problems (such as technical, political and/or

legal), or coordination issues with the other agencies and/or committee members arisen?

- Regarding mitigation project(s):
 - Has the outcome of completed mitigation projects occurred as expected?
 - Have the agencies and other committee partners participated as proposed?
 - Has any project received funding assistance?
 - Where shortcomings are identified, what can be done to bring things back on track?
- Regarding evaluating other programs and policies that address:
 - Economic development
 - Environmental preservation and permitting
 - Health and safety
 - Historic preservation
 - Land use
 - Public education
 - Public outreach
 - Recreation
 - Redevelopment
 - Transportation
 - Zoning

Following each annual plan monitoring meeting, meeting minutes summarizing the outcome of the evaluation meeting will be distributed via email to all planning team members and NJOEM. NJOEM will post meeting minutes on its website.

NJOEM Requirement #1: An updated plan shall document the method by which the participating jurisdiction evaluated the HMP throughout the five-year period of record by submitting annual reports coinciding with the anniversary date of the plan approval.

Annual reports of progress, evaluation and implementation will be considered in the scoring, selection and ranking of projects submitted for hazard grant program funding.

On a case-by-case basis, NJOEM will determine if site visits, phone calls, and/or meetings would be necessary and if so, NJOEM will initiate these as applicable.

Updating and Amending the Approved Plan Within the Five-Year Cycle

44 CFR 201.6(c)(4)(i) states: The plan maintenance process shall include a section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

To accomplish this objective, most of the local plans reviewed and approved by NJOEM and FEMA state that annual meetings will be held as described in FEMA How-To #4 (FEMA 386-4), Worksheet #5, Revise the Plan. NJOEM considers updating the plan an important step in mitigation planning process necessary in bringing the hazard mitigation process to life.

As part of the process to maintain FEMA mitigation funding eligibility, a revised plan must always be submitted to NJOEM and FEMA for review. This must occur within five years of the original plan's approval by FEMA (and during subsequent five-year cycles thereafter).

To accomplish this objective, the lead agency and the planning team will evaluate the need to amend the existing plan based on the following:

- Have new risks been identified?
- Have capabilities changed relative to participant's ability to plan and implement hazard mitigation projects?
- Has a determination been made that significant changes have occurred in the availability of local funds, or federal and state funding levels, to support the development of hazard mitigation projects?
- Have successful accomplishments or implementations developed additional strategies and actions?

The plan update will not only involve a comprehensive review and evaluation of each section of the plan, but also a discussion of the results of evaluation and monitoring activities detailed in the plan maintenance section of the previously approved plan. Plan updates may validate the information in the previously approved plan or may involve a major plan rewrite. A plan update cannot be an annex referring to the previously approved plan; it must stand on its own as a complete and current plan.

Funding for an interim plan update will not be considered.

Plan Update at the End of the Five-Year Cycle

44 CFR 201.6(c)(4)(i) states: The plan maintenance process shall include a section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

An updated plan is considered a new plan and will be subject to review as if it were a first-time submission. The plan development should follow the procedures described in the in FEMA How-To Series (FEMA 386-1,386-2, 386-3, and 386-4); The Local Mitigation Plan Review Guide (October 1, 2011) and the Local Mitigation Plan Review Tool.

NJOEM Requirement #2: A plan update should follow the procedures outlined in NJOEM Handout #48.

The plan update involves a comprehensive review and evaluation of each section of the plan, including a discussion of the results of evaluation and monitoring activities detailed in the plan maintenance section of the previously approved plan.

- Plan updates may validate the information in the previously approved plan or may involve a major plan rewrite.
- A plan update cannot be an annex referring to the previously approved plan.
- A plan update must stand on its own as a complete and current plan.
- Other criteria that will be considered during the update include:
- Have changing situations modified goals/objectives/actions and/or hazards?
- Is additional information available to perform more accurate vulnerability assessments?
- Will there be a change in participating jurisdictions those that wish to be added to and/or removed from the plan?
- Has a determination been made that the plan no longer addresses current and expected future conditions?

Generally, the midpoint year (2.5 years after plan adoption) is identified as the point for the update process to begin. This ensures that sufficient time (30 months) will be available to update the document within the five-year cycle including:

- Consult with FEMA for the latest guidance regarding plan updates
- Ensure that the latest criteria are addressed in the update process
- Receive FEMA's grant approval
- Allow for local jurisdictions to formally join in the updated plan

Although many approved county plans recommend that the third annual meeting be the kick-off of the plan updating process, NJOEM's experience is that the updating process should start earlier, especially if funding support is being sought. This allows additional time to prepare for any delays and processing.

Continued Public Participation in Plan Maintenance

44 CFR 201.6(c)(4)(iii) states, "[The plan maintenance process shall include a] discussion on how the community will continue public participation in the plan maintenance process."

To meet this requirement, the new HMP should describe:

- What opportunities the public had while the current plan was in place to comment on the progress made to date and on any proposed plan revisions
- What opportunities the public will have during the plan's periodic review to comment on the progress made to date and on any proposed plan revisions

The following activities are examples:

- Mitigation planning website and document repositories continued to be maintained
- Each participating jurisdiction will add a link on their jurisdiction's web page to the county mitigation planning website, if they have not already done so as part of the plan development process.
- An annual fact sheet on the plan be prepared and distributed
- Efforts to prepare a survey for the public and other stakeholders which will be posted on the county mitigation planning web site and in document repositories
- Participating jurisdictions will conduct annual interviews and/or smaller meetings with civic groups, the public and other stakeholders
- Participating jurisdictions will consider annual flyers, newsletters, newspaper advertisements, and Radio/TV announcements to maintain public awareness of the plan, and will implement some or all of the above at the discretion of the jurisdiction
- Establish a telephone hotline service (preferably a toll-free number) for interested parties to ask questions or submit feedback regarding the plan
- Maintain a detailed record of all communications between interested parties subsequent to plan approval and adoption
- Participating jurisdictions will each conduct an annual town hall meeting on the progress of the mitigation plan

Local Plan Integration into Municipal Operations

44 CFR 201.6(c)(4)(ii), "[The plan shall include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate."

To meet this requirement, the new HMP should indicate how mitigation recommendations will be integrated into day-to-day operations including:

- Job descriptions
- Existing planning mechanisms such as comprehensive plans, capital improvement plans, zoning and building codes, site reviews, permitting, and other planning tools
- Other tools as appropriate

In other words, "plan integration" is the process whereby each local government will incorporate the plan findings and projects into their governing systems.

Annual reports of integration will be considered in the scoring, selection, and ranking of projects submitted for hazard grant program funding.

On a case-by-case basis, NJOEM will determine if site visits, phone calls, and/or meetings would be necessary to support the integration of local plans into municipal day-to-day operations, and if so, NJOEM will initiate these as applicable.

3.3 CRITERIA FOR PRIORITIZING MITIGATION PLANNING AND PROJECT GRANTS

44 CFR 201.4(c)(4)(iii): [The section on the Coordination of Local Mitigation Planning must include] criteria for prioritizing communities and local jurisdictions that would receive planning and project grants under available funding programs which should include:

- consideration for communities with the highest risks,
- repetitive loss properties, and
- most intense development pressures.

Further that for non-planning grants, a principal criterion for prioritizing grants shall be the extent to which benefits are maximized according to a cost benefit review of proposed projects and their associated costs.

44CFR 201.4(d): [The] plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities...

The State actively coordinates and prioritizes planning and project grant funding in accordance with the criteria below. In the event that an active disaster declaration has necessitated a FEMA-approved HMGP Administrative Plan, the prioritization is reviewed to ensure compliance with the prevailing guidance. The FEMA-approved HMGP Administrative Plan details the process for prioritizing post-disaster mitigation funding of local mitigation projects.

The State continues to use severe repetitive loss (SRL) and repetitive loss as the top priority for prioritizing mitigation actions. In addition to SRL and repetitive loss, the State also uses the following criteria for prioritizing grant applications to counties and municipalities:

- Communities experiencing the greatest SRL and repetitive loss damages (see Section 8 Repetitive Loss Mitigation Strategy)
- Communities recovering from declared natural disasters
- Communities identified as having higher vulnerability through local and state HMPs
- Communities that are best organized to prepare, update and implement local HMPs
- Communities of unique or special interest as defined by research objectives and special projects of NJOEM, other state agencies, or Federal agency initiatives
- Communities adjacent to communities with approved and current local HMPs with a potential to impact, favorably or negatively, the vulnerability of their neighboring communities to one or more natural hazards
- Communities adjacent to communities with approved and current local HMPs and sharing similar natural hazards
- Communities in which the State maintains high levels of investment as defined by the value of state facilities and the amount of State aid (including intergovernmental transfers, Urban Enterprise Zones and other tax abatements programs, payments in lieu of taxes)
- Communities with endorsed plans or actively participating in the process of plan endorsement with the New Jersey State Planning Commission
- Communities with the highest pressures for future development or redevelopment determined in consultation with the New Jersey Office of Smart Growth and the appropriate and relevant provisions of the current New Jersey State Development and Redevelopment Plan
- All other communities

3.3.1 PRIORITIZING MITIGATION PLANNING FUNDS

Funding planning grants to assure that all local jurisdictions remain eligible for FEMA funding remains a priority. The overall effort of the State to encourage and support applications for planning grants has been very successful with all 21 counties in the State. All counties are in the process of drafting, or near completion with the multi-jurisdiction Hazard Mitigation Plans.

Letter of Intent

A Letter of Intent (LOI) will be required for all HMA applications including HMGP, Flood Mitigation Assistance (FMA), and PDM programs. LOIs are submitted electronically through the online application process at https://njemgrants.org/.

Coordination with NFIP

Special planning considerations are made when large amounts of HMGP money are available, such as:

- More detailed and specific mitigation actions items that can be easily translated to HMA applications
- Better risk assessment data when the readily available data is poor, old or non-existent (for example, mine subsidence, or personal dams)

Local HMPs shall indicate integration into other FEMA mitigation programs and initiatives such as the NFIP program. Local HMPs will explain how to use NFIP information. Subsections of local HMPs shall include enumeration of SRL and RFC numbers and areas of concern as well as an indication of substantially damaged properties.

3.3.2 PRIORITIZING MITIGATION PROJECT FUNDS

Projects to implement natural hazard mitigation measures, ranging from providing field services, to data development, to capital-intensive construction and property acquisition, require an evaluation of the costs. This evaluation should include the cost to implement projects compared to the benefits of each project, or group of projects, in reducing risks (expressed as costs avoided) of damages associated with potential natural hazards. In some cases, such as data development, it is difficult to precisely ascertain costs and benefits. Therefore, somewhat different criteria must exist for project prioritization. To the

extent that discretion exists to establish priorities within the statutory and regulatory requirements, NJOEM will give priority in providing local project implementation assistance to communities (municipalities and groups of neighboring municipalities) for natural hazard mitigation in accordance with the project priority scoring methodology shown in the table below.

NJOEM will coordinate with plan participants to annually review and update, as necessary, these criteria for prioritizing communities and local jurisdictions for receiving future planning and project grants under available funding programs. This prioritization process includes priority consideration for communities and neighborhoods with the highest risks, the highest number and value of severe repetitive loss and repetitive loss properties, and the most intense pressures for future development or redevelopment. Determining development pressure will be made in consultation with the appropriate and relevant provisions of the current New Jersey State Development and Redevelopment Plan.

Letter of Intent

When municipalities submit LOIs to the SHMO for project grants, NJOEM staff sends written notification of receipt and attaches the application package for the respective grant and the system evaluation criteria. The package provides instructions, sample narratives, graphics and a variety of forms to illustrate the type of information that needs to be included in an application. It is also important for them to understand what elements they need to satisfy and how each element will be weighted prior to drafting the application. NJOEM provides each municipality with the systematic evaluation criteria for each application.

Cost Effectiveness

Mitigation projects must be cost effective to be eligible for HMA funding as supported by a FEMA-validated benefit-cost analysis (BCA). A BCA evaluates the future benefits (projected losses avoided) of the project in relation to the project costs. This evaluation results in a benefit-cost ratio (BCR).

- If the future benefits are equal to or greater than the cost, then the BCR is equal to or greater than 1.0 and a proposed activity is considered cost effective.
- If the benefits are less than the cost, then the BCR is less than 1.0 and the proposed activity is not considered cost effective (excluding planning projects).

Only project sub-applications with a BCR of 1.0 or greater will be considered for FEMA HMA funding. For the BCA, the total cost must include annual maintenance costs for the proposed mitigation activity even though maintenance costs are not eligible project costs.

For HMGP only, an expedited cost-effectiveness determination is available for property acquisition and structure demolition or relocation projects when certain conditions are met. For structures identified in a riverine special flood hazard area on the current effective Flood Insurance Rate Map (FIRM) and declared by a local authority substantially damaged due to the impacts of flooding, property acquisition and structure demolition or relocation is considered cost effective and a BCA is not required to be submitted for the structure.

For 5% Initiative sub-applications for HMGP funding, a narrative description of the project's cost effectiveness must be provided in lieu of a BCA. For more information on the 5% Initiative, see the Hazard Mitigation Assistance Unified Guidance. FEMA BCA procedures are governed by New Jersey Office of Management and Budget (NJOMB) Circular A- 94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs.

NJOEM requires that project applicants submit a FEMA BCA that demonstrates cost-effectiveness (greater than one). New guidance on incorporating sea level rise to the BCA is available on FEMA's website: Hazard Mitigation Assistance and Sea Level Rise. http://www.fema.gov/media-library/assets/documents/89659.

The LOI for funding applications indicates that only applications that meet this criteria will be considered.

Feasibility and Effectiveness Requirement

Mitigation projects funded by HMA must be both feasible and effective at mitigating the risks of the hazard(s) for which the project was designed. A project's feasibility is demonstrated through conformance with accepted engineering practices, established codes, standards, modeling techniques, or best practices. Effective mitigation measures funded under HMA provide a long-term or permanent solution to a risk from a natural hazard.

For additional information about the feasibility and effectiveness requirement for mitigation reconstruction projects, see FEMA Hazard Mitigation Assistance Unified Guidance for HMGP and FMA Programs.

NJOEM will require:

- For HMGP, any projects that involve facilities damaged by the declared disaster event should first seek funding under the 406 Public Assistance program
- Confirmation by the applicant that the HMA Unified Guidance has been reviewed and that the scope of the project was listed as an eligible activity
- Confirmation by the applicant that the proposed project is not in conflict with proposals in development and, if in doubt, that consultation with other agencies involved has occurred. For example, a river improvement project that is covered in a USACE dredging program

To date, the State's system for prioritizing mitigation project grants has been successful, as evidenced by the number and types of projects that have been funded.

Post-Disaster Funding Prioritization

In the event that an active disaster declaration has necessitated a FEMA-approved HMGP Administrative Plan, the prioritization is reviewed to ensure compliance with the prevailing guidance. The FEMA-approved HMGP Administrative Plan details the process for prioritizing post-disaster mitigation funding of local mitigation projects.

Following DR-4086, the State developed an HMPG administrative plan to comply with the requirements of *44 CFR 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.

For DR-4086, the state-run acquisition program will acquire eligible properties with municipal support and willing sellers. Selection of properties may be evaluated and identified based on the following criteria:

- Clusters of substantially damaged properties in proximity to publicly owned or preserved undeveloped natural areas containing sensitive and/or regulated features and/or Coastal Barrier Resource Act (CBRA) zones
- Clusters of SRL or RL properties in proximity to publicly owned or preserved undeveloped, natural areas containing sensitive and/or regulated features and/or CBRA zones
- Special Flood Hazard Area (SFHA) properties
- Other properties

The state-run reconstruction/elevation program will prioritize homes to be reconstructed or elevated based on, but not limited to, the following criteria (as long as funds are available):

- Elevation (only) of primary residential homes that are substantially damaged in the Coastal V Zone
- Elevation or foundation reconstruction of primary residential homes that are substantially

- damaged in the Coastal A Zone
- Elevation or foundation reconstruction of primary residential homes that are substantially damaged in the A Zone
- Elevation (only) of primary residential homes that have severe or major damage as defined by FEMA's Individual Assistance program in the V Zone
- Elevation or foundation reconstruction of primary residential homes that have severe or major damage as defined by FEMA's Individual Assistance program in the Coastal A, and A Zones
- Primary residential homes located within a SFHA
- Other primary residential homes
- Not a property that is the subject of an acquisition action

Eligible projects may be of any nature that will result in protection of public or private property. These projects include, but are not limited to:

- Structural hazard control or protection projects
- Construction projects that will result in protection from hazards
- Retrofitting of facilities
- Property acquisition or relocation consistent with 44 CFR 206.434(e)
- Development of State or local mitigation standards
- Development of comprehensive mitigation programs, with implementation as an essential component
- Development or improvement of warning systems