



**Appendix I. New Jersey Office of Emergency  
Management Mitigation Program Handouts**



# Hazard Types

Hazards may occur alone or in combination with severe weather leading to flooding; an earthquake leading to landslides; or high winds leading wildfires. The New Jersey State Hazard Mitigation Plan addresses natural hazards and what can be done to eliminate or reduce their impact. The Plan is online at: <http://www.State.nj.njoem/>

<b>Natural Hazards</b>	<ul style="list-style-type: none"> <li>• <b>Fires:</b> Arson, wild fires, urban fires</li> <li>• <b>Flooding:</b> alluvial fan (rain), coastal flooding, dam failure, flash floods, mudslides, riverine flooding.</li> <li>• <b>Geological Hazards:</b> earthquake, ground subsidence, landslides, tidal waves or tsunami</li> <li>• <b>Severe Weather:</b> Avalanche, coastal erosion, dam failure, drought, extreme weather, hail, winds, hurricane, ice storms, land subsidence, landslide, lightning, severe winter storm, snow storms, tornado, tsunami, wildfire</li> </ul>
<b>Man-Made Hazards:</b>	<ul style="list-style-type: none"> <li>• <b>Hazardous Materials:</b> biological, chemical, explosive, and radioactive materials.</li> <li>• <b>Radiological:</b> Institutional incidents, power plant accidents, transportation accidents, weapons accidents</li> <li>• <b>Technological:</b> Disease, infestation, economic crisis, loss of essential services</li> <li>• <b>Terrorism:</b> Bombings, civil unrest, crime, threats to government, violent protests.</li> </ul>

The New Jersey State Hazard Mitigation Plan addresses vulnerability to each hazard in the Hazard Assessment Process.

## Flooding (Riverine, coastal flooding, storm surge and tsunami)

- Riverine Flooding is the accumulation of water within a water body (e.g., stream, river, lake, or reservoir) and the overflow of excess water onto adjacent floodplains. Floods are natural events that are considered hazards only when people and property are affected.
- Coastal Flooding is the inundation of land areas along the coast caused by sea water above normal tidal actions. This is often caused by prolonged strong onshore flow of wind and/or high astronomical tides.
- **Tsunami** - A series of sea waves usually caused by displacement of the ocean floor by an under sea earthquake. The wave travels at speeds of up to 600 mph. As tsunamis enter the shallow waters near land, they increase in height causing great loss of life and property damage where they come ashore. Tsunamis are not a single wave but a series of waves.

## Hurricanes and tropical storms

- **Tropical Cyclone** is a low-pressure system in which wind speed spiral counterclockwise around the center, accompanied by heavy rain and strong winds. Occur during the month of June through November in the Atlantic Ocean and Caribbean.
- **Hurricane** are tropical cyclones with winds of 74 mph or more. Its devastating effects include storm surge, strong winds heavy rains and flooding

	Category No.*	Wind Speed (mph)	Potential Damage
<b>Hurricanes - Rated under the Saffir-Simpson Scale</b>	1	74-95	Minimal
	2	96-110	Moderate
	3	111-130	Extensive
	4	131-155	Extreme
	5	>156	Catastrophic

Because hurricanes often occur at the same time, officials assign short, distinctive names to the storms to avoid confusion among weather stations, coastal bases, and ships at sea.

Since 1953, Atlantic tropical storms have been named from lists created by the National Hurricane Center and now maintained and updated by the World Meteorological Organization. The lists featured only women's names until 1979, when men's and women's names were alternated. Six lists are used in rotation. The 2011 list will be used again in 2017. If all the names in a season's list have been used, later storms are named for Greek letters, in alphabetical order. (This has happened only once, in 2005.)

A storm is given a name once its winds reach a speed of 40 mph. In addition to the Atlantic list of names, there are ten other lists corresponding to other storm-prone regions of the world.

2011	2012	2013	2014	2015	2016	2017
Arlene	Alberto	Andrea	Arthur	Ana	Alex	Arlene
Bret	Beryl	Barry	Bertha	Bill	Bonnie	Bret
Cindy	Chris	Chantal	Cristobal	Claudette	Colin	Cindy
Don	Debby	Dean	Dolly	Danny	Danielle	Don
Emily	Ernesto	Erin	Edouard	Erika	Earl	Emily
Franklin	Florence	Felix	Fay	Fred	Fiona	Franklin
Gert	Gordon	Gabrielle	Gustav	Grace	Gaston	Gert
Harvey	Helene	Humberto	Hanna	Henri	Hermine	Harvey
Irene	Isaac	Ingrid	Ike	Ida	Igor	Irene
Jose	Joyce	Jerry	Josephine	Joaquin	Julia	Jose
Katia	Kirk	Karen	Kyle	Kate	Karl	Katia
Lee	Leslie	Lorenzo	Laura	Larry	Lisa	Lee
Maria	Michael	Melissa	Marco	Mindy	Matthew	Maria
Nate	Nadine	Noel	Nana	Nicholas	Nicole	Nate
Ophelia	Oscar	Olga	Omar	Odette	Otto	Ophelia
Philippe	Patty	Pablo	Paloma	Peter	Paula	Philippe
Rina	Raphael	Rebecca	Rene	Rose	Richard	Rina
Sean	Sandy	Sebastian	Sally	Sam	Shary	Sean
Tammy	Tony	Tanya	Teddy	Teresa	Tomas	Tammy
Vince	Valerie	Van	Vicky	Victor	Virginie	Vince
Whitney	William	Wendy	Wilfred	Wanda	Walter	Whitney

- **Nor'easters (North Easter or N'easter)** - Storm located off the east coast of North America so called because winds over the coastal area are from the North East. They may occur at any time of the year but are more frequent between September and April. North Easters nearly always bring rain and wind of more than 50 mph to the coastal region.
- Other Flood, Hurricane and Nor'easter terms
  - **Tropical Storm** - A tropical cyclone with winds of 39 to 74 mph.
  - **Tropical Depression** - A tropical cyclone with winds less than 39 mph.
  - **Storm Surge** - Quickly rising ocean water level associated with hurricanes that may cause wide spread flooding and destruction along coastal region.
  - **Flash Floods** - Flooding with rapid water rise.
  - **Tropical Wave** - Weak low pressure system that travels in the easterly across the Atlantic and Caribbean.
  - **Upper Trough** - An area of low atmospheric pressure usually between 20,000 and 30,000 feet. The atmosphere below becomes unstable producing conditions of severe weather near the ground.
- Winter storms (Snow, ice storms, cold waves and cold chills (resulting in flooding, storm surge, closed highways, blocked roads, downed power lines and hypothermia).
  - **Winter storm.** A storm with significant snowfall, ice, and/or freezing rain; the quantity of precipitation varies by elevation. In Non-mountainous areas - heavy snowfall is 4 inches or more in a 12-hour period, or 6 or more inches in a 24-hour period and in Mountainous areas - 12 inches or more in a 12-hour period or 18 inches or more in a 24-hour period
  - **Blizzard.** A storm with considerable falling and/or blowing snow combined with sustained winds or frequent gusts of 35 mph or greater that frequently reduces visibility to less than one-quarter mile.
  - **Cold Front** - When cold air displaces warm air it forms a boundary known as a "cold front". Violent weather may form along the front with danger of flooding, hail and tornadoes.

- Tornadoes, High Winds and Thunderstorms.
  - **Tornado** - A strong rotating column of air that extends from the base of thunderstorm clouds to the ground. Strongest winds have been around 300 mph and have traveled more than 200 miles in distance. Thunderstorms and hurricanes spawn tornadoes when cold air overrides a layer of warm air, causing the warm air to rise rapidly. The winds produced from hurricanes, earthquake-induced fires, and wildfires have also been known to produce tornadoes. The nature of tornadoes is that they strike at random.
  - Fujita defines these wind speeds as the “fastest quarter-mile wind.” The accuracy of expected damage at particular wind speed has never been scientifically proven

<b>Tornado - Classified under the Fujita Scale</b>		
<b>Gale (F0)</b> 40-72 mph	Light damage. Some damage to chimneys; break branches off trees; push over shallow-rooted trees; damage to sign boards	About 61 %. Cause less than 5% of death
<b>Moderate (F1)</b> 73-112 mph	The lower limit is the beginning of hurricane wind speed; peel surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off roads	
<b>Significant (F2)</b> 113-157 mph	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-objects missiles generated. Can last 20 minutes or more.	About 29 %. Cause 30% of deaths.
<b>Severe ((F-3)</b> 158-206 mph	Roof and some walls torn off well-constructed houses; trains over turned; most trees in forest uprooted; cars lifted off ground.	About 2%. Cause 70% of all deaths.
<b>Devastating (F4)</b> 207-260 mph	Well-constructed houses leveled; structures with weak foundations blown off some distances; cars thrown and large missiles generated. Can last longer than an hour	
<b>Incredible (F5)</b> 261-318 mph	Strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100 yards; trees debarked.	

- Earthquakes are caused by abrupt release of stored energy within the Earth’s crust. Seismologists study earthquakes by using a variety of methods to measure and compare the motion of the ground.

***The strength of an earthquake is measured using the “Richter Scale”.***

<b>Richter Magnitude</b>	<b>TNT Equivalent</b>	<b>Characteristics</b>
<b>1.0-2.0</b>	6 ounces-13 pounds	Not felt
<b>3.0</b>	397 pounds	Slight quake. Feels like a passing truck.
<b>4.0</b>	6 tons	Moderate quake. Dishes rattle, sleepers awakened.
<b>5.0</b>	199 tons	Considerable quake. Dishes break.
<b>6.0</b>	6,270 tons	Severe quake. Hard to keep balance. Houses could fall.
<b>7.0+</b>	199,000 tons	Major quake. Substantial damage to brick and wooden buildings. Fissures form in the ground. About a dozen quakes exceeding 7.0 occur each year.

**The New Jersey State Natural Hazard Mitigation Plan covers:**

- Flooding (Riverine, Coastal Flooding, Storm Surge, Tsunami)
- Geological Hazards (Landslides, Subsidence and Sinkholes)
- Winter Storms
- Extreme Heat
- Drought
- Windfire
- Hail
- Extreme Heat
- Wind and Tornadoes
- Coastal Erosion

The Plan also includes information on Human-Caused Hazards including:

- Animal Diseases
- Civil Unrest
- Crop and Fishing Failures
- Nuclear and Hazardous Waste Incidents
- Pandemics
- Power Outages
- Terrorism

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**For more information Contact:** New Jersey Office of Emergency Management, Division of State Police  
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# FACT SHEET

## FEMA Grant programs administered by NJOEM Hazard Mitigation

The Federal Emergency Management Agency (FEMA) is part of the United States Department of Homeland Security. FEMA's Mitigation Grant programs provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. Currently, FEMA administers the following grant programs:

	<ul style="list-style-type: none"> <li>The Hazard Mitigation Grant Program (HMGP)</li> </ul>	<p>HMGP funds are available only after a Presidential declared disaster has been declared. Funding is based on the severity of the event. A disaster mitigation plan is required.</p>
<b>Annual HM Assistance</b>	<ul style="list-style-type: none"> <li>The Flood Mitigation Assistance (FMA) Program,</li> </ul>	<p>FMA funds are based on annual appropriations. Funds are available to communities with an approved FMA plan.</p>
	<ul style="list-style-type: none"> <li>The Pre-Disaster Mitigation (PDM) Program</li> </ul>	<p>PDM funds are based on competitive annual appropriations. Funds are available to communities with an approved PDM plan.</p>
	<ul style="list-style-type: none"> <li>The Repetitive Flood Claims (RFC) Program.</li> </ul>	<p>The RFC and SRL grant programs are designed to reduce or eliminate the long-term risk of flooding to NFIP-insured structures, and thereby reduce the number of claims paid from the National Flood Insurance Fund (NFIF).</p>
	<ul style="list-style-type: none"> <li>The Severe Repetitive Loss (SRL) Program</li> </ul>	

## Hazard Mitigation Grant Program (HMGP)

[www.fema.gov/government/grant/hmgrp/index.shtm](http://www.fema.gov/government/grant/hmgrp/index.shtm)

Hazard Mitigation Grant Program funds are available following a Presidential disaster declaration. Eligible applicants include States, local governments, Indian Tribal governments, and some Private Non-Profit organizations. Communities may apply for HMGP assistance on behalf of affected individuals and businesses, and all funds must be used to reduce or eliminate losses from future disasters. Examples of projects include:

- Elevating flood-prone homes or businesses;
- Acquiring (and either demolishing or relocating) flood-prone homes from willing owners and returning the property to open space;
- Retrofitting buildings to minimize damage from high winds, flooding, earthquakes, and other hazards; and
- Implementing minor flood control projects to protect critical facilities.

HMGP provides up to 7.5 percent of total Disaster Assistance funds for mitigation measures to be implemented during the immediate recovery after a disaster. Grant applications are submitted to the State, which sets mitigation priorities and awards grants based on available funding and State criteria. FEMA conducts the final eligibility review to ensure that all projects are compliant with Federal regulations, including the Federal law that requires States and communities to have FEMA-approved mitigation plans in place prior to receipt of HMGP project funds. A mitigation plan must identify hazards, assess community needs, and describe a community-wide strategy for reducing risks associated with natural disasters.

## Flood Mitigation Assistance (FMA)

[www.fema.gov/government/grant/fma/index.shtm](http://www.fema.gov/government/grant/fma/index.shtm)

The Flood Mitigation Assistance program provides funding to States and communities for measures that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insured under the National Flood Insurance Program (NFIP). The program provides grants for mitigation planning and projects with a goal of reducing claims under the NFIP.

- Planning grants are used to assess flood risks and develop Flood Mitigation Plans to reduce the risks; and
- Project grants are used to implement mitigation activities that reduce flood losses to NFIP-insured properties by elevating, acquiring, and demolishing or relocating NFIP-insured buildings. Project grants are available to NFIP-participating communities that have a Flood Mitigation Plan in place.

Reducing the number of repetitive loss structures insured by the NFIP is a key priority for the FMA program. Repetitive loss structures are those that have sustained two or more flood losses within a period of ten years, with each loss resulting in a flood insurance claim payment exceeding \$1000. [content](#)

# Pre-Disaster Mitigation (PDM) Program

[www.fema.gov/government/grant/pdm/index.shtm](http://www.fema.gov/government/grant/pdm/index.shtm)

The Pre-Disaster Mitigation (PDM) Program assists States, Indian Tribal governments, and local governments with cost-effective hazard mitigation activities that complement a comprehensive mitigation program. The program provides Applicants with an opportunity to raise risk awareness and reduce disaster losses before disasters strike through planning grants and project grants. PDM grants are awarded on a nationally competitive basis. Communities and States must have FEMA-approved mitigation plans in order to receive project grant funds.

Eligible PDM activities include:

- Elevation of existing public or private structures;
- Localized flood control projects that are designed specifically to protect critical facilities;
- Protective measures for utilities;
- Relocation of public or private structures;
- Storm water management projects;
- Structural and non-structural retrofitting; and,
- Voluntary acquisition of real property.

# Repetitive Flood Claims (RFC) Grant Program

[www.fema.gov/government/grant/rfc/index.shtm](http://www.fema.gov/government/grant/rfc/index.shtm)

The Repetitive Flood Claims (RFC) grant program is designed to reduce or eliminate the long-term risk of flood damage to structures that are insured under the National Flood Insurance Program (NFIP) and have had one or more claim payment(s) for flood damages. RFC funds may only be used to mitigate structures located within a community participating in the NFIP and cannot meet the requirements of the Flood Mitigation Assistance (FMA) program due to lack of state or local capacity, which includes either inability to manage the sub-grant or lack of 25% non-Federal cost share.

The goal of the RFC grant program is to reduce or eliminate long-term flood risks through mitigation activities that are in the best interest of the National Flood Insurance Fund based on a benefit-cost analysis. The RFC grants are awarded to Applicants on a nationwide basis without reference to State allocations, quotas, or other formula-based allocations. Grants are eligible for up to 100 percent Federal assistance.

Eligible mitigation activities include acquisition of properties and either demolition or relocation of flood-prone structures. The property is deed restricted for open space uses in perpetuity. Awards are prioritized to create the greatest amount of savings to the NFIF. A FEMA-approved State hazard mitigation plan is required for eligibility. A local plan is not required.

# Severe Repetitive Loss (SRL) Program

[www.fema.gov/government/grant/srl/index.shtm](http://www.fema.gov/government/grant/srl/index.shtm)

The Severe Repetitive Loss (SRL) Program provides funds to assist States, Indian Tribal governments, and local governments participating in the NFIP in reducing or eliminating the long-term flood risks to severe repetitive loss properties, thus reducing outlays from the NFIF. Severe repetitive loss was defined by the FIRA 2004. For a property to be designated SRL, it must:

- Be a residential property currently insured under the National Flood Insurance Program;
- Have incurred flood losses that resulted in either (1) four or more flood insurance claims payments that each exceeded \$5,000 with at least two of the payments occurring within a 10-year period, or (2) two or more flood insurance claims payments that cumulatively exceeded the value of the property.

SRL funds will be allocated annually to States, Territories, and Tribes based on the number of severe repetitive loss properties in their respective jurisdictions. Eligible SRL activities include:

- Acquisition, elevation, relocation, or demolition of existing residential properties;
- Floodproofing measures for residential properties;
- Minor physical localized flood control projects; and,
- Demolition and rebuilding of properties to at least Base Flood Elevation (BFE) or greater if required by any local ordinance.

Grants are up to a 75 percent Federal cost share. The Federal cost share may be adjusted to 90 percent if the Applicant has a FEMA-approved State mitigation plan that also addresses how the State has and will continue to reduce the number of severe repetitive loss properties. Local governments must have an approved PDM Plan and projects must meet Benefit/Cost Analysis (BCA) or Alternative Determination of Cost Effectiveness.

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**For More Information, Contact:** Lt. Robert Little, State Hazard Mitigation Officer  
Box 7068, River Road, West Trenton, NJ 08628 – 609-963-6963 – [NJMitigation@gw.njsp.org](mailto:NJMitigation@gw.njsp.org)



# Reprint of 44 Code of Federal Regulation (Partial - as of October 1, 2004)

**An All Hazard Mitigation Plan is a requirement of the Federal Disaster Mitigation Act of 2000.**

## 44 CFR § 201.6 Local Mitigation Plans

The local mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. Local plans will also serve as the basis for the State to provide technical assistance and to prioritize project funding.

### (a) **Plan Requirement.**

- (1) For disasters declared after November 1, 2003, a local government must have a mitigation plan approved pursuant to this section in order to receive HMGP project grants. Until November 1, 2003, local mitigation plans may be developed concurrent with the implementation of the project grant.
- (2) Regional Directors may grant an exception to the plan requirement in extraordinary circumstances, such as in a small and impoverished community, when justification is provided. In these cases, a plan will be completed within 12 months of the award of the project grant. If a plan is not provided within this timeframe, the project grant will be terminated, and any costs incurred after notice of grant's termination will not be reimbursed by FEMA.
- (3) Multi-jurisdictional plans (e.g. watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process and has officially adopted the plan. State-wide plans will not be accepted as multijurisdictional plans.

(b) **Planning process.** An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:

- (1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;
- (2) 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 interests to be involved in the planning process; and
- (3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

(c) **Plan content.** The plan shall include the following:

- (1) Documentation of the *planning process* used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.
- (2) A *risk assessment* that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards. The risk assessment shall include:
  - (i) A description of the type, location, and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.
  - (ii) A description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community. The plan should describe vulnerability in terms of:



- (A) The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas;
  - (B) An estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate;
  - (C) Providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.
- (iii) For multi-jurisdictional plans, the risk assessment section must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.
- (3) A *mitigation strategy* that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools. This section shall include:
- (i) A description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.
  - (ii) 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 infrastructure.
  - (iii) An action plan describing how the actions identified in paragraph (c)(2)(ii) of this section 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 projects and their associated costs.
  - (iv) For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.
- (4) A *plan maintenance process* that includes:
- (i) A section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.
  - (ii) 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.
  - (iii) Discussion on how the community will continue public participation in the plan maintenance process.
- (5) *Documentation* that the plan has been formally adopted by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, County Commissioner, Tribal Council). For multi-jurisdictional plans, each jurisdiction requesting approval of the plan must document that it has been formally adopted.

(d) **Plan review.**

- (1) 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.
- (2) The Regional review will be completed within 45 days after receipt from the State, whenever possible.
- (3) Plans must be reviewed, revised if appropriate, and resubmitted for approval within five years in order to continue to be eligible for HMGP project grant funding.
- (4) Managing States that have been approved under the criteria established by FEMA pursuant to 42 U.S.C. 5170c(c) will be delegated approval authority for local mitigation plans, and the review will be based on the criteria in this part. Managing States will review the plans within 45 days of receipt of the plans, whenever possible, and provide a copy of the approved plans to the Regional Office.

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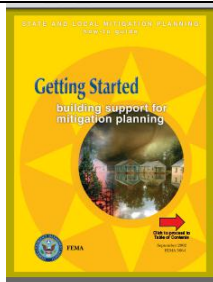
**For More Information, Contact:** Lt. Robert Little , State Hazard Mitigation Officer  
 Box 7068, River Road, West Trenton, NJ 08628 – 609-963-6963 – NJMitigation@gw.njs



# Local Mitigation Planning

**New Planning Guidelines are under development to coincide with the new Guide and Tool and will soon replace the items outlined below.**

Planning guides can be downloaded from the FEMA Information Resource Library or call FEMA Publications at 1 (800) 480-2520

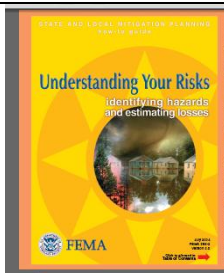


## Getting Started

Building support for mitigation Planning

1. Access community Support
2. Build the Planning Team
3. Engage the Public

The first guide in the State and Local Mitigation Planning How-To Series discusses the activities and issues involved in initiating a hazard mitigation planning process. The topics covered here are presented within the context of the beginning phase of the mitigation planning process, although many of these activities will continue throughout the process. Therefore, the efforts you put into identifying and organizing your resources early on will pay dividends later as you progress through some of the more challenging tasks of mitigation planning. This how-to guide thus covers not only this first phase of the planning process, but also provides snapshots of later phases. You will then be able to begin the planning process knowing ahead of time what types of resources you may need to call upon in the future. Lastly, but perhaps most importantly, elected officials, community staff, citizens, and businesses will benefit from the knowledge, organization, positive attitude, and energy that you and your team demonstrate



## Understanding Your Risks

Identifying hazards and estimating losses

1. Access community Support
2. Identify Hazards
3. Profile Hazard Events
4. Inventory Assets
5. Estimate Losses

The second guide in the State and Local Mitigation Planning How-To Series provides step-by-step guidance on how to accomplish a risk assessment.

Through a series of general and hazard-specific guidance and worksheets, the guide will help States, Tribes, and communities to determine 1) which natural hazards could affect a jurisdiction; 2) what areas of the jurisdiction are vulnerable to the hazards; 3) what assets will be affected; and 4) to what degree they will be affected, as measured through dollar losses. The guide is multi-hazard in scope, addressing flood, earthquake, tsunami, tornado, coastal storm, landslide and wildfire. For communities dealing with multiple hazards, guidance is also provided on how to develop a composite loss estimate. Once the risk assessment is completed, States and communities will have the information necessary to develop a strategy and plan for reducing their losses.

***For more information Contact:***

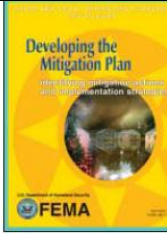
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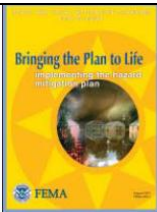
## Developing the Mitigation Plan

Identifying mitigation action and implementation strategies

1. Develop mitigation goals and objectives
2. Identify and Prioritize Mitigation Actions
3. Prepare an Implementation Strategy
4. Document the Mitigation Planning Process

### Developing the Mitigation Plan: Identifying Mitigation Actions and Implementation Strategies

The third guide in the State And Local Mitigation Planning How-To Series is about developing your community's mitigation strategy and documenting the planning process. It builds on the resources and organizational framework discussed in Getting Started: Building Support for Mitigation Planning (FEMA 386-1) and the results of the loss estimation conducted according to Understanding Your Risks: Identifying Hazards and Estimating Losses (FEMA 386-2). This guide provides planners the tools necessary to develop mitigation goals and objectives, identify and prioritize mitigation actions, formulate an implementation strategy, and assemble the planning document.



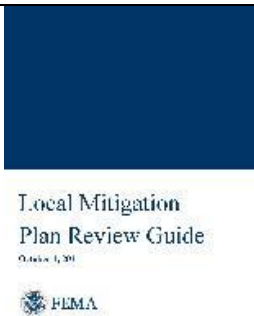
## Bringing the Plan to Life

Implementing the hazard mitigation plan

1. Adopt the mitigation plan
2. Implement the plan recommendations
3. Evaluate your planning needs
4. Revise the plan

### Bringing the Plan To Life: Implementing the Hazard Mitigation Plan

The fourth guide in the State and Local Mitigation Planning How-To Series discusses how to implement the hazard mitigation plan. The implementation process puts your planning team's hard work into motion and focuses on the actions necessary to establish and maintain the effectiveness of the plan as a fundamental tool for risk reduction. This guide will lead communities and states through the formal adoption of the plan and discusses how to implement, monitor, and evaluate the results of mitigation actions to keep the mitigation plan relevant over time.



## Mitigation Planning "Guide"

Understanding mitigation planning

1. Evaluating mitigation plans
2. Developing new plans

Complementary items under development include:

- The "Tool" which replaces the "Crosswalk"
- Plan development "guidelines" which will replace the four guidelines noted above.

The Local Mitigation Plan Review Guide provides guidance for Federal and State officials responsible for reviewing Local Mitigation Plans in a fair and consistent manner, and to ensure approved Local Mitigation Plans meet the requirements of the Stafford Act and Title 44 Code of Federal Regulations (CFR) §201.6.1. This Local Mitigation Plan Review Guide is FEMA's official source for defining the requirements of original and updated Local Mitigation Plans. It is designed:

- to help Federal and State reviewers evaluate mitigation plans from different jurisdictions in a fair and consistent manner; and
- to help States, Tribes, and local jurisdictions develop new mitigation plans or modify existing ones in accordance with the requirements of 44 CFR Part 201.

This Local Mitigation Plan Review Guide incorporates State, local, and Tribal officials' feedback and addresses issues that have arisen since the initial guidance was developed. FEMA continues to monitor the progress of States, local governments, and Tribes as they develop their plans, working in partnership with them to help ensure their success and enhancing our guidance products as questions and concerns arise.

The complementary Planning Tool provide an outline of the scope of the plan and can be used to assure the plan developer that all necessary items have been included in the plan.



# Hazard Mitigation Goals, Objectives and Strategy

Mitigation is sustained action taken to reduce or eliminate the long-term risk to human life and property from natural or manmade hazards and their effects. The Disaster Mitigation Act of 2000 requires a State Hazard Disaster Mitigation Plan be in place before any FEMA grant funds can be awarded.

The State of New Jersey completed an All Hazards Pre-Disaster Mitigation Plan and received FEMA approval in April 2005. To further that end, FEMA and NJ OEM has worked to get the planning process underway as quickly as possible while at the same time, get as many actual mitigation projects completed with funds available before eligibility ran out. Five mitigation goals were detailed in the New Jersey State Mitigation Plan. The Plan was, adopted in April 2005 and the goals and objectives remain the same. Simply stated they are:

Goal	Objective
<b>1. To protect life through</b>	<ul style="list-style-type: none"> <li>○ Improved warning and emergency communications systems.</li> <li>○ Effectively addressing laws and regulations that speak to hazard mitigation issues.</li> <li>○ Reducing the impacts of hazards on vulnerable populations.</li> <li>○ Strengthen State and local building code enforcement.</li> <li>○ Training emergency responders</li> </ul>
<b>2. To protect property through</b>	<ul style="list-style-type: none"> <li>○ Protecting critical State facility assets.</li> <li>○ Protecting critical non-state owned facility assets.</li> <li>○ Reducing repetitive losses</li> </ul>
<b>3. To promote a sustainable economy by</b>	<ul style="list-style-type: none"> <li>○ Providing incentives for mitigation planning and actions.</li> <li>○ Forming partnerships to leverage and share resources for mitigation</li> <li>○ Ensuring continuity of critical business operations</li> </ul>
<b>4. To protect the environment by</b>	<ul style="list-style-type: none"> <li>○ Implementing hazard mitigation policies to protect the environment.</li> </ul>
<b>5. To increase public preparedness through</b>	<ul style="list-style-type: none"> <li>○ Improved public awareness and preparedness for natural hazards and the risks they pose.</li> <li>○ Improved hazard Information data bases and maps</li> <li>○ Enhanced community outreach.</li> <li>○ Increased development of local mitigation planning.</li> </ul>

**MITIGATION STRATEGY:** To accomplish the mitigation goals New Jersey will use a three prong strategy:

1. Recognize flooding as the major disaster threat facing the state and use acquisition between a voluntary seller and a public agency as the primary means to accomplish all of the goals and objectives.
2. Offer, as a secondary means of accomplishing the state goals, assistance in the elevation of homes where or when acquisition is not an option.
3. Work with both county and municipal governments that have an approved local mitigation plan and those whose plans are nearing completion to develop sound and beneficial projects to alleviate the impacts of all natural disasters, not limited to flooding alone.

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# A Natural Hazard Mitigation “Project” Saves Money

**The 2005 Multi-hazard Mitigation Council Study\* “shows that money spent on reducing the risk of natural hazards is a sound investment. On average, a dollar spent by on hazard mitigation (actions to reduce disaster losses) provides about \$4 in future benefits.”**

Benefits were defined as losses to society avoided and included:

- ✓ Reduced direct property damage (e.g., buildings contents, bridges, pipelines)
- ✓ Reduced direct business interruption loss (e.g., damaged industrial, commercial or retail facilities)
- ✓ Reduced indirect business interruption loss (e.g., ordinary multiplier or “ripple effect”)
- ✓ Reduced nonmarket damage (e.g., environmental damage to wetlands, parks, and wildlife and damage to historic structures)
- ✓ Reduced human losses (e.g., deaths, injuries, homelessness)
- ✓ Reduced cost of emergency response (e.g., ambulance service and police and fire protection)

And what does that mean...

- Under a typical FEMA hazard mitigation grant of 75% under the HMGP, FMA, PDM and RFC programs. (See NJOEM Handouts #3 Fact Sheet and #44 FEMA Grant program Comparison for more information.)
  - A project that costs a total of \$100,000
    - Would receive FEMA funding reimbursement of \$75,000
    - With the local share of \$25,000
  - Future benefits would be \$400,000
  - Or 16 times the local cost of the mitigation project
- Under a FEMA hazard mitigation grant of 90% (or more) under the RFC program. (See NJOEM Handouts #3 Fact Sheet and #44 FEMA Grant program Comparison for more information.)
  - A project that costs a total of \$100,000
    - Would receive FEMA funding reimbursement of \$90,000
    - With the local share of \$10,000
  - Future benefits would be \$400,000
  - Or 40 times the local cost of the mitigation project

\*The two-volume study report is available for free download at:

<http://www.nibs.org/MMC/mmchome.html> .

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## **Some projects to consider independently or with FEMA funding\* are:**

**\*Hard Projects** – Physical measures to avoid or reduce damage resulting from disasters (typically eligible for FEMA funding):

- Acquiring, elevating, or relocating buildings, lifelines or other structures threatened by floods
- Strengthening buildings and lifelines to resist flooding, earthquake or wind force
- Improve drainage and land conditions

**Soft Projects** – Activities that lead to policies, practices, and other activities to reduce risks (which typically can lead to an eligible FEMA funded project):

- Assessing hazards, vulnerability, and risk
- Conducting planning to identify mitigation efforts, policies, practices and set priorities
- Educating decision-makers and building constituencies
- Facilitating the selection, design, funding of mitigation projects

**Goal Oriented Projects** – Develop hazard mitigation benefits that (which typically are addressed as a local hazard mitigation strategy):

- Reduce direct property damage (e.g., buildings, contents, bridges, pipelines)
- Reduce direct business interruption loss (e.g., damages to industrial, commercial, and retail facilities)
- Reduce indirect business interruption loss (e.g., ordinary economic “ripple” effects)
- Reduce non-market environmental damage (e.g., wetlands, parks, wildlife)
- Reduce other non-market damage (e.g., historic sites)
- Reduce societal losses (e.g., casualties, homelessness)
- Reduce need for emergency response (e.g., ambulance service, fire protection)

### **Projects, described in the report, that work include:**

- Structural improvement to a specific public facilities to reduce or prevent damage
- Community-wide or system-wide improvement projects
- Purchase and demolish homes in flood prone area
- Elevation or relocation of repetitively flood damaged homes
- Construction of disaster resistant safe rooms and shelters
- Road grading and drainage improvement projects to reduce the effects of flooding
- Construction of detention and retention basins as part of a storm water management program
- Education programs to increase the public’s awareness of hazards, mitigation and preparedness
- Improving communications and transmission of emergency information
- Installation of automated hazard mitigation information systems, early flood warning systems and gauges
- Tree trimming and removal programs to reduce the loss of property and facilitate emergency response
- Installation of bulkheads to reduce flood damage and business losses
- Construction of flood control projects – berms, levees, and dikes
- Development of local hazard mitigation plans

### **FEMA Hazard Mitigation funding available through NJ Office of Emergency Management**

- **Hazard Mitigation Grant Program** (Post disaster program)
- **Flood Mitigation Assistance Program** (Pre disaster program)
- **Pre Disaster Mitigation Program – Competitive** (Pre disaster program)
- **Repetitive Flood Claim and Severe Repetitive Loss Programs** (NFI P administered)



# Partners in Open Space



Initially, recovery from the 2005 Flooding was the impetus to partner funds to maximize the impact of federal and state grants. Harmony, Pohatcong and Wayne Townships were the first municipalities to use both Federal funding under a FEMA grant

program combined with an open space acquisition grant under the NJDEP Green Acres Program. Combined 100% funding has set aside these once repetitively flooded properties as permanent open space. In an effort to clarify the funding requirements and procedures, this handout was prepared by Green Acres with input from the Office of Emergency Management. Provisions under the Blue Acres portion of the 2007 Garden State Preservation Trust Bond Issue which designates specific funding for flood relief in the Passaic, Raritan and Delaware River basins will continue the partnership.

## Background

The New Jersey Office of Emergency Management administers Federal Emergency Management Agency (FEMA) programs that provide for flood prone property acquisitions that are maintained as permanent open space. Flood-inundated communities can use Federal grant funding to acquire private property as a hazard mitigation option. This buyout program provides the local government unit with a 75% matching grant of the cost of acquisition. Once it acquires the property – from willing sellers only – the local government unit must demolish all structures and hold the site as public open space in perpetuity.

This FEMA program is consistent with the goals of the Green Acres Program, specifically the creation of permanent public open space. Therefore, Green Acres works together with the Office of Emergency Management and assists local government units by providing the 25% non-Federal match requirement for the land acquisition project.

## Procedural Information:

The established Green Acres requirements for survey, preliminary assessments, and title insurance must be met as part of the project. Variations and exceptions to the other Green Acres procedures are noted below: FEMA will not reimburse a local government unit for project expenditures made before FEMA project approval.

## Appraisals:

- All appraisals must be done by Green Acres approved appraisers.
- Appraisers must be in the form required by FEMA, specifically a Uniform Residential Appraisal Report.
- The Project site will be appraised on the date and the property's condition prior to the disaster.
- The cost of the appraisal obtained by the local government unit is eligible for reimbursement by Green Acres. The cost of an appraisal obtained by the landowner, if applicable, is not eligible even if FEMA ultimately bases its participation on that appraisal.
- In accordance with the Garden State Preservation Act, appraisal done for these projects will not include a "hypothetical land value" (see Green Acres rules) because Federal funding is being used.

## Eligible Land Costs:

Neither FEMA, Emergency Management, nor Green Acres will duplicate the benefits paid by another public source. For example, FEMA will require the local government unit to subtract from the purchase price the amount of other assistance the individual property owner has received for the same purpose, including flood insurance benefits.

For Green Acres purposes, the local government unit will be eligible for 25% of the land acquisition costs as follows:

**Green Acres Certified Market Value minus any Federal insurance benefits aid to landowner equals the eligible land cost.**

Green Acres will base its participation on its certified market value even if FEMA bases its reimbursement on a different value. Under no circumstances, however, will Green Acres funding, when combined with FEMA funding, exceed the actual purchase price.

**Structures:**

FEMA requires the demolition of any structures within 90 days after closing. However, both FEMA and Green Acres require that any structure on a project site must be evaluated for its potential historic nature and reviewed by the Department's of Environmental Protection Office of Historic Preservation (OHP) to determine if it is eligible for inclusion in the New Jersey Register of Historic Places. If necessary, Green Acres will coordinate with OHP during its review and assist the local government unit is addressing any issues that may arise from an OHP determination of Register eligibility.

**Demolition:**

Demolition costs are eligible for reimbursement unless the local government unit has received funding from another source that pays for demolition. For example, Increased Cost of Compliance (ICC) coverage is part of most insurance policies available under FEMA's National Flood Insurance Program and may be used for demolition. The individual policy holder may assign his or her benefits to the local government unit, which FEMA will then consider as part of the non-Federal matching share. Therefore, ICC payment would be deducted from the local government units' Green Acres funding, which is serving as the non-Federal matching share.

**Deeds:**

The deed conveying the project site to the local government unit must reflect the full consideration of the purchase and must contain the required Green Acres language referencing the conditions of funding. In addition, it must include FEMA's deed restriction requiring that the project site must be held for public open space in perpetuity.

**Relocation:**

FEMA does not reimburse for landowners relocation costs because its buyout program is voluntary. However, benefits to displaced tenants may be available. Green Acres funding may be used for eligible relocation costs.

**State Acquisition:**

When acquisition is accomplished directly by the State and held by the State or when management is transferred to a municipality, then municipalities are compensated for taxes losses over a thirteen year period. Full tax losses are paid the first year and are then reduced by 8% per year.

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# Flood Losses

Repetitive and Severe Repetitive Flood Loss  
By County

**Source: FEMA as of June 22, 2011**  
**To be updated with Hurricane Irene**  
**information when available**



1*	2*	Repetitive Flood Claims			Severe Repetitive Loss Claims		
		3*	4*	5*	6*	7*	8*
County	# NFIP	RFC Props	RFC Claims	RFC Cost	SRLProp	SRL Claims	SRLCost
Atlantic	31,749	884	2,816	\$35,018,691	47	336	\$3,399,164
Bergen	13,885	817	2,202	\$59,446,200	42	238	\$6,070,791
Burlington	4,281	103	259	\$6,807,630	2	11	\$23,555
Camden	2,409	67	172	\$1,321,986	2	15	\$140,443
Cape may	53,986	2,072	7,118	\$82,035,957	191	1,227	\$16,140,245
Cumberland	1,055	77	186	\$2,438,066	1	15	\$315,944
Essex	3,960	331	949	\$21,030,655	237	1,501	\$22,815,534
Gloucester	2,132	23	59	\$532,890	1	8	\$104,910
Hudson	16,066	102	330	\$11,218,561	5	22	\$408,574
Hunterdon	1,423	190	512	\$15,372,637	15	58	\$3,462,284
Mercer	880	259	747	\$16,516,144	4	25	\$439,431
Middlesex	4,519	297	832	\$16,049,150	29	135	\$2,871,722
Monmouth	23,781	680	1,813	\$37,319,756	15	85	\$1,946,914
Morris	4,092	730	2,856	\$49,967,668	165	1,084	\$20,547,476
Ocean	46,595	847	2,326	\$30,864,732	42	234	\$3,579,933
Passaic	4,377	1,359	5,591	\$111,971,592	449	2,792	\$61,412,583
Salem	2,215	19	51	\$556,341	1	5	\$65,165
Somerset	2,955	837	2,257	\$81,311,366	62	266	\$9,817,651
Sussex	339	8	17	\$299,824	0	0	0
Union	4,759	487	1,260	\$23,253,433	8	34	\$1,205,509
Warren	826	233	657	\$25,475,829	31	100	\$4,636,646
<b>Total</b>	<b>226,284</b>	<b>10,422</b>	<b>33,010</b>	<b>\$628,809,118</b>	<b>1,349</b>	<b>8,191</b>	<b>\$159,616,485</b>

- \*1 County Name – information changes daily with new policies and claim information added or deleted.
- \*2 Total number of National Flood Insurance Program (NFIP) policies by county as of June 22, 2011. Source: FEMA
- \*3 Total number of Repetitive Flood Claim Properties in the state/county. An RFC property by definition is a National Flood insured property that has had two or more NFIP claims of at least \$1,000 within any 10-year period since 1978.
- \*4 Number of RFC claims filed. Claim information is recorded for the property and continues when ownership changes.
- \*5 Dollar amount of RFC claims filed.
- \*6 Total number of Severe Repetitive Loss Properties in the state/county. A SRL property is an NFIP insured residential property having flood losses that resulted in either (1) four or more flood insurance claim payments that exceeded \$5,000 with at least two of the payments occurring within a 10-year period, or (2) two or more flood insurance claim payments that cumulatively exceed the value of the property.
- \*7 Number of SRL claims filed.
- \*8 Dollar amount of SRL claims filed.

**Note of explanation:** As of June 22, 2011 there were a total of 226,284 National Flood Insurance Program (NFIP) policies in the state.

- Of that total of NFIP policies, 10,422 property owners made 33,010 RFC claims for over \$628 million.
- And of the total of RFC claims, 1,349 property owners made 8,191 SRL claims nearly \$160 million.

## Ranked County Percentages of FEMA National Flood Insurance Policies, Repetitive and Severe Repetitive Loss Claims

	Counties Ranked by Percent of Flood Insurance Policies in force			Counties Ranked by Percent of Repetitive Flood Claims made			Counties Ranked by Percent of Severe Repetitive Loss Claims made		
	County	# of NFIP Policies	Percent of policies in state	County	# of RFC Props	Percent of RFC in state	County	# of SRLProp	Percent of SRL in state
1	Cape May	53,986	23.85	Cape May	2,072	19.90	Passaic	449	33.30
2	Ocean	46,595	20.59	Passaic	1,359	13.00	Essex	237	17.55
3	Atlantic	31,749	14.00	Atlantic	884	8.40	Cape May	191	14.15
4	Monmouth	23,781	10.50	Ocean	847	8.10	Morris	165	12.25
5	Hudson	16,066	7.35	Somerset	837	8.00	Somerset	62	4.60
6	Bergen	13,885	6.10	Bergen	817	7.80	Atlantic	47	3.50
7	Union	4,759	2.10	Morris	730	7.00	Ocean	42	3.10
8	Middlesex	4,519	1.99	Monmouth	680	6.50	Bergen	42	3.10
9	Burlington	4,281	1.90	Union	487	4.60	Warren	31	2.30
10	Passaic	4,377	1.90	Essex	331	3.10	Middlesex	29	2.15
11	Morris	4,092	1.80	Middlesex	297	2.80	Monmouth	15	1.10
12	Essex	3,960	1.75	Mercer	259	2.50	Hunterdon	15	1.10
13	Somerset	2,955	1.30	Warren	233	2.20	Union	8	0.60
14	Camden	2,409	1.05	Hunterdon	190	1.80	Hudson	5	0.35
15	Gloucester	2,132	0.95	Salem	19	1.20	Mercer	4	0.30
16	Salem	2,215	0.95	Hudson	102	1.00	Burlington	2	0.15
17	Hunterdon	1,423	0.60	Burlington	103	0.90	Camden	2	0.15
18	Cumberland	1,055	0.45	Cumberland	77	0.70	Salem	1	0.07
19	Mercer	880	0.35	Camden	67	0.60	Cumberland	1	0.07
20	Warren	826	0.35	Gloucester	23	0.20	Gloucester	1	0.07
21	Sussex	339	0.15	Sussex	8	0.05	Sussex	0	0.00

**For more information Contact:**



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# Community Rating System

The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote the awareness of flood insurance.

For CRS participating communities, flood insurance premium rates are discounted in increments of 5%; i.e., a Class 1 community would receive a 45% premium discount, while a Class 9 community would receive a 5% discount (a Class 10 is participating in the CRS but does not have the minimum points or has lapsed and receives no discount). The CRS classes for local communities are based on 18 creditable activities, organized under four categories: (i) Public Information, (ii) Mapping and Regulations, (iii) Flood Damage Reduction, and (iv) Flood Preparedness.

**Credit points earned, classification awarded, and premium reductions given for communities in the National Flood Insurance Program Community Rating System.**

Credit Points	Class	Premium Reduction		Credit Points	Class	Premium Reduction	
		Properties in SFHA*	Properties in PRP/Non-SFHA**			Properties in SFHA*	Properties in PRP/Non-SFHA**
4,500+	1	45%	10%	2,000 – 2,499	6 (7+)	20%	10%
4,000 – 4,499	2	40%	10%	1,500 – 1,999	7 (15+)	15%	5%
3,500 – 3,999	3	35%	10%	1,000 – 1,499	8 (21+)	10%	5%
3,000 – 3,499	4	30%	10%	500 – 999	9 (10+)	5%	5%
2,500 – 2,999	5	25%	10%	0 – 499	10 (22+)	0	0

\* (#) indicates number of New Jersey municipalities in CRS class.

**\*Special Flood Hazard Area** - Darkly shaded area on a Flood Hazard Boundary Map (FHBM) or a Flood Insurance Rate Map (FIRM) that identifies an area that has a 1 percent chance of being flooded in any given year (100-year floodplain). Over a 30-year period, the life of most mortgages, there is at least a 26 percent chance that this area will be flooded. The FIRM identifies these shaded areas as FIRM Zones A, AO, AH, A1-A30, AE, A99, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO, V, V1-V30, and VE.

**\*\*Preferred Risk Policies** are available only in B, C, and X Zones for properties that are shown to have a minimal risk of flood damage. The Preferred Risk Policy does not receive premium rate credits under the CRS because it already has a lower premium than other policies. The CRS credit for AR and A99 Zones are based on non-Special Flood Hazard Areas (non-SFHAs) (B, C, and X Zones). Credits are: classes 1-6, 10% and classes 7-9, 5%. Premium reductions are subject to change.

CRS Creditable Activities			
Public Information	Mapping and Regulations	Flood Damage Reduction	Flood Preparedness
<ul style="list-style-type: none"> <li>Elevation Certificates</li> <li>Map Information</li> <li>Outreach Projects</li> <li>Hazard Disclosure</li> <li>Flood Protection Information</li> <li>Flood Protection Assistance</li> </ul>	<ul style="list-style-type: none"> <li>Additional Flood Data</li> <li>Higher Regulator Standards</li> <li>Land Development Criteria</li> <li>Flood Data Maintenance</li> <li>Stormwater Management</li> </ul>	<ul style="list-style-type: none"> <li>Repetitive Loss Requirements</li> <li>Floodplain Management Planning</li> <li>Acquisition and Relocation</li> <li>Flood Protection</li> <li>Drainage System Management</li> </ul>	<ul style="list-style-type: none"> <li>Flood Warning Program</li> <li>Levee Safety</li> <li>Dam Safety</li> </ul>

**Realized individual savings to policy holders in the SHFA through participation in the CRS program:**

Municipality/County	CRS Class	Individual Savings	Municipality	CRS Class	Individual Savings	Municipality	CRS Class	Individual Savings
Mantoloking, Ocean	6	\$378	Rahway, Union	7	\$240	No. Plainfield, Somerset	8	173
Ridgewood Village, Bergen	7	\$311	Franklin, Somerset	7	\$235	Linden, Union	8	173
Bedminster, Somerset	6	\$310	Stafford, Ocean	6	\$211	Wayne, Passaic	8	166
Beach Haven, Ocean	6	\$262	Manasquan, Monmouth	7	\$204	Ship Bottom	7	164
Long Beach, Ocean	6	\$244	Surf City, Ocean	7	\$180	HMC, Bergen & Hudson	7	164

**For more information Contact:**

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**David Rosenblatt, Administrator or John H. Moyle, PE, State NFIP Coordinator**  
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- There are now 57 local jurisdictions (56 municipalities and the Hackensack Meadowlands Commission) in New Jersey receiving flood insurance premium discounts based on a rating of Class 1 through Class 9 and their implementation of local mitigation, outreach, and educational activities that go well beyond minimum NFIP requirements.
- While premium discounts are one of the benefits of participation in CRS, it is more important that these communities are carrying out activities that save lives and reduce property damage.

Current New Jersey Municipalities actively participating in the CRS Program – As of 10/1/2011						
Municipality Class 10 Communities not listed	Co.	CID #	Effective Date	Class	% Discount for SFHA	% Discount for Non-SFHA
1. Atlantic City	AT	345278	October 2000	9	5	5
2. Brigantine City	AT	345286	October 2009	6	20	10
3. Longport Borough	AT	345302	October 2002	8	10	5
4. Margate City	AT	345304	October 1999	7	15	5
5. Ventnor City	AT	345326	October 1999	7	15	5
6. Meadowlands Commission	BE	340570	October 2002	7	15	5
7. Ridgewood Village	BE	340067	October 2002	7	15	5
8. Rochelle Park Township	BE	340070	October 2006	8	10	5
9. Burlington City	BU	345287	October 2003	8	10	5
10. Palmyra	BU	340110	October 2009	8	10	5
11. Avalon Borough	CM	345279	October 2007	6	20	10
12. Cape May City	CM	345288	October 1999	8	10	5
13. Cape May Point Borough	CM	345289	October 1994	7	15	5
14. North Wildwood City	CM	345308	October 2002	7	15	5
15. Ocean City	CM	345310	October 2001	7	15	5
16. Stone Harbor Borough	CM	345323	May 2009	7	15	5
17. Upper Township	CM	340159	October 2011	7	15	5
18. Wildwood Crest Borough	CM	345330	October 2003	8	10	5
19. Greenwich Township	CU	340204	May 2007	9	5	5
20. Hamilton Township	ME	340246	May 2009	8	10	5
21. Aberdeen Township	MO	340312	May 2010	9	5	5
22. Bradley Beach Borough	MO	340289	October 2000	7	15	5
23. Denville Township	MO	345292	October 2011	9	5	5
24. Hazlet Township	MO	340298	May 2011	8	10	5
25. Manasquan Borough	MO	345303	October 2009	7	10	5
26. Oceanport Borough	MO	340320	May 2010	8	10	5
27. Pequannock Township	MO	345311	October 2011	7	15	5
28. Pompton Lakes Borough	MO	345528	October 2011	6	20	10
29. Riverdale Borough	MO	340359	October 1994	9	5	5
30. Spring Lake Borough	MO	340329	October 1999	8	10	5
31. Union Beach Borough	MO	340331	October 2003	8	10	5
32. Barnegat Light Borough	OC	345280	October 2001	8	10	5
33. Bay Head Borough	OC	345281	October 1998	8	10	5
34. Beach Haven Borough	OC	345282	May 2004	6	20	10
35. Berkeley Township	OC	340369	October 2008	7	15	5
36. Harvey Cedars Borough	OC	345296	October 2009	8	10	5
37. Lavalette Borough	OC	340379	May 2005	8	10	5
38. Long Beach Township	OC	345301	October 2008	6	20	10
39. Mantoloking Borough	OC	340383	October 2008	6	20	10
40. Ocean Township	OC	340518	October 1995	9	5	5
41. Point Pleasant Borough	OC	345313	May 2009	9	5	5
42. Pt Pleasant Beach Borough	OC	340388	October 2009	9	5	5
43. Seaside Park Borough	OC	345319	October 2006	8	10	5
44. Ship Bottom Borough	OC	345320	May 2009	7	15	5
45. Stafford Township	OC	340393	May 2008	6	20	10
46. Surf City	OC	345324	October 1998	7	15	5
47. Toms River Township	OC	345293	October 1992	9	5	5
48. Little Falls Township	PA	340401	May 2010	9	5	5
49. Wayne Township	PA	345327	October 2002	8	10	5
50. Bedminster Township	SO	340427	May 2007	6	20	10
51. Bernards Township	SO	340428	October 2010	8	10	5
52. Franklin Township	SO	340434	May 2010	7	15	5
53. North Plainfield Borough	SO	345307	October 2009	8	10	5
54. Warren Township	SO	340446	May 2010	9	5	5
55. Linden City	UN	340467	October 2002	8	10	5
56. Rahway City	UN	345314	May 2009	7	15	5
57. Roselle Borough	UN	340472	January 1998	8	10	5



# Technical Fact Sheets designed as a Home Builder's Guide to Coastal Construction



FEMA produced a series of 31 fact sheets (the 499 series) to provide technical guidance and recommendations concerning the construction of coastal residential buildings. The fact sheets present information aimed at improving the performance of buildings subject to flood and wind forces in coastal environments. Photographs and drawings illustrate National Flood Insurance Program (NFIP) regulatory requirements, the proper siting of coastal buildings, and recommended design and construction practices for building components, including structural connections, the building envelope, and utilities. Many of the fact sheets also include lists of FEMA and other resources that provide more information about the topics discussed. Where appropriate, resources are accompanied by active web links.

To download PDF or plain text files for the entire document or individual sections, go to [FEMA.gov](http://FEMA.gov) and enter "Technical Fact Sheets" in the Advance Search – upper right corner.

#	Subject Matter
1	<b>Coastal Building Successes and Failures</b> – Explains how coastal construction requirements differ from those for inland construction, and discusses the characteristics that make for a successful coastal residential building. Includes design and construction recommendations for achieving building success.
2	<b>Summary of Coastal Construction Requirements and Recommendations</b> – Summarizes NFIP regulatory requirements for new construction and for repairs, remodeling, and additions, and presents recommendations for exceeding those requirements in some instances. Topics include building foundations, enclosures below the Base Flood Elevation (BFE), use of nonstructural fill, use of space below the BFE, utilities, certification requirements, and repairs, remodeling, and additions. Cross-references to related fact sheets are provided.
3	<b>Using a Flood Insurance Rate Map (FIRM)</b> – Explains the purpose of FIRMs; highlights features of a FIRM that are important to coastal builders, including flood hazard zones and flood elevations; and explains how to obtain FIRMs.
4	<b>Lowest Floor Elevation</b> – Defines "lowest floor," discusses benefits of exceeding the NFIP minimum building elevation requirements, points out common construction practices that are violations of NFIP regulations, and discusses the NFIP Elevation Certificate. Also includes a copy of the certificate.
5	<b>V-Zone Design and Construction Certification</b> – Explains the certification requirements for structural design and construction in V zones. Also includes a copy of a sample certificate and explains how to complete it.
6	<b>How Do Siting and Design Decisions Affect the Owner's Costs?</b> – Discusses effects of planning, siting, and design decisions on coastal home costs. Topics include initial, operating, and long-term costs; risk determination; and the effect on costs of meeting and exceeding code and NFIP design and construction requirements.
7	<b>Selecting a Lot and Siting the Building</b> – Presents guidance concerning lot selection and building siting considerations for coastal residential buildings. Topics include factors that constrain siting decisions, coastal setback lines, common siting problems, and suggestions for builders, designers, and owners.
8	<b>Coastal Building Materials</b> – Provides guidance on the selection of building materials used for coastal construction. Flood, wind, corrosion, & decay resistance are discussed, including protection recommendations.
9	<b>Moisture Barrier Systems</b> – Describes the moisture barrier system, explains how typical wall moisture barrier systems work, and discusses common problems associated with moisture barrier systems.
10	<b>Load Paths</b> – Illustrates the concept of load paths and highlights important connections in a typical wind uplift load path.
11	<b>Foundations in Coastal Areas</b> – Explains foundation design criteria and describes foundation types suitable for coastal environments. Also addresses foundations for high-elevation coastal areas (e.g., bluff areas).
12	<b>Pile Installation</b> – Presents basic information about pile design and installation, including pile types, sizes and lengths, layout, installation methods, bracing, and capacities.
13	<b>Wood-Pile-to-Beam Connections</b> – Illustrates typical wood-pile-to-beam connections; presents basic construction guidance for various connection methods, including connections for misaligned piles; and illustrates pile bracing connection techniques.
14	<b>Reinforced Masonry Pier Construction</b> – Provides an alternative to piles in V zones and A zones in coastal areas where soil properties preclude pile installation, but the need for an "open foundation system" still exists. Includes recommendations for good masonry practice in coastal environments.
15	<b>Foundation Walls</b> – Discusses and illustrates the use of foundation walls in coastal buildings. Topics include footing embedment, wall height, materials and workmanship, lateral support, flood openings and ventilation requirements, and interior grade elevations for crawlspaces.
16	<b>Masonry Details</b> – Illustrates important roof-to-wall and wall-to-foundation connection details for masonry construction in coastal areas. Topics include load paths, building materials, and reinforcement.

17	<b>Use of Connectors and Brackets</b> – Illustrates important building connections and the proper use of connection hardware throughout a building.
18	<b>Roof Sheathing Installation</b> – Presents information about proper roof sheathing installation and its importance in coastal construction; also discusses fastening methods that will enhance the durability of a building in a high-wind area. Topics include sheathing types and layout methods for gable-end and hip roofs, fastener selection and spacing, the treatment of ridge vents and ladder framing, and common sheathing attachment mistakes.
19	<b>Roof Underlayment for Asphalt Shingle Roofs</b> – Presents recommended practices for the use of roofing underlayment as an enhanced secondary water barrier in coastal environments. Optional installation methods are illustrated.
20	<b>Asphalt Shingle Roofing for High-Wind Regions</b> – Recommends practices for installing asphalt roof shingles that will enhance the wind resistance of roof coverings in high-wind, coastal regions. Issues include installation at hips, eaves, and ridges; shingle characteristics; weathering and durability; and wind resistance.
21	<b>Tile Roofing for High-Wind Areas</b> – Presents design and construction guidance for tile roofing attachment methods. Topics include uplift loads, uplift resistance, special considerations concerning tile attachment at hips and ridges, tile installation on critical and essential buildings, and quality control.
22	<b>Window and Door Installation</b> – Presents flashing detail concepts for window and door openings that provide adequate resistance to water intrusion in coastal environments, do not depend solely on sealants, are integral with secondary weather barriers (e.g., housewrap), and are adequately attached to the wall. Topics include the American Society for Testing and Materials (ASTM) Standard E 2112 and specific considerations concerning pan flashings, Exterior Insulation Finishing Systems, frame anchoring, shutters, and weatherstripping.
23	<b>Housewrap</b> – Explains the function of housewrap, examines its attributes, and addresses common problems associated with its use. Topics include housewrap vs. building paper and housewrap installation.
24	<b>Roof-to-Wall and Deck-to-Wall Flashing</b> – Emphasizes the importance of proper roof and deck flashing, and presents typical and enhanced flashing techniques for coastal homes.
25	<b>Siding Installation and Connectors</b> – Provides basic installation tips for various types of siding, including vinyl, wood, and fiber cement.
26	<b>Shutter Alternatives</b> – Presents general information about the installation and use of storm shutters in coastal environments. Shutter types addressed include temporary plywood panels; temporary manufactured panels; permanent, manual closing; and permanent, motor-driven.
27	<b>Enclosures and Breakaway Walls</b> – Defines enclosures and breakaway walls, and discusses requirements and recommendations for their use below the Base Flood Elevation (BFE).
28	<b>Decks, Pools, and Accessory Structures</b> – Summarizes NFIP requirements, general guidelines, and recommendations concerning the construction and installation of decks, access stairs and elevators, swimming pools, and accessory buildings under or near coastal residential buildings.
29	<b>Protecting Utilities</b> – Identifies the special considerations that must be made when installing utility equipment, such as fuel, sewage, and water/sewage lines in a coastal home, and presents recommendations for utility protection.
30	<b>Repairs, Remodeling, Additions, and Retrofitting</b> – Outlines NFIP requirements for repairs, remodeling, and additions, and discusses opportunities for retrofitting in coastal flood hazard areas. Also presents recommendations for exceeding the minimum NFIP requirements. Definitions of “substantial damage” and “substantial improvement” are included.
31	<b>References</b> – Lists references that provide information relevant to topics covered by the Home Builder’s Guide to Coastal Construction technical fact sheets.

**For more information Contact:**

	<p>NJDEP Office of Engineering and Construction, Bureau of Dam Safety and Flood Control P. O. Box 419, Trenton, NJ 08625</p> <p><b>David Rosenblatt, Administrator or John H. Moyle, PE, State NFIP Coordinator</b> Tele: (609) 292-2296; Fax: (609) 984-1908; Web: <a href="http://www.state.nj.us/dep/floodcontrol">www.state.nj.us/dep/floodcontrol</a></p>
	<p>New Jersey Office of Emergency Management, Division of State Police P. O. Box 7068, West Trenton, NJ 08628-0068</p> <p><b>Lt. Robert Little, State Hazard Mitigation Officer</b> Telephone: (609) 963-6963; Fax: (609) 530-3649; Email: <a href="mailto:NJMitigation@gw.njsp.org">NJMitigation@gw.njsp.org</a></p>



# The National Flood Insurance Program



The three components of FEMA's National Flood Insurance Program (NFIP) are:

- **Flood Insurance**

345 municipalities in New Jersey participate in the NFIP whereby Federally backed flood insurance is made available to homeowners, renters, and business owners. Participation in the NFIP is voluntary.

Flood insurance is designed to provide an alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods. Flood damage is reduced by municipalities implementing sound floodplain management requirements and property owners purchasing of flood insurance.

In addition to providing flood insurance and reducing flood damages through floodplain management regulations, the NFIP identifies and maps the Nation's floodplains. Mapping flood hazards creates broad-based awareness of the flood hazards and provides the data needed for floodplain management programs and to actuarially rate new construction for flood insurance.

- **Floodplain Management**

Floodplain Management is the basis of the National Flood Insurance Program and is also a community program of corrective and preventative measures for reducing flood damage. These measures take a variety of forms and generally include requirements for zoning, subdivision or building, and special-purpose floodplain ordinances.

The State of New Jersey has assigned responsibility for Floodplain Management and NFIP to the New Jersey Department of Environmental Protection.

- **Flood Hazard Mapping**

The Map Modernization Program refers to updating the Flood Insurance Rate Maps (FIRM). As part of the modernization effort, existing FIRMs are being converted to a new map format, termed the Digital Flood Insurance Rate Map (DFIRM). DFIRMs are delivered in Geographic Information System (GIS) format allowing data to be easily shared. Maps are being funded on a County basis and will be integrated to provide seamless flood hazard data across the state and nation.

## For more information Contact:

	<p>NJDEP Office of Engineering and Construction, Bureau of Dam Safety and Flood Control P. O. Box 419, Trenton, NJ 08625</p> <p><b>David Rosenblatt, Administrator or John H. Moyle, PE, State NFIP Coordinator</b> Tele: (609) 292-2296; Fax: (609) 984-1908; Web: <a href="http://www.state.nj.us/dep/floodcontrol">www.state.nj.us/dep/floodcontrol</a></p>
	<p>New Jersey Office of Emergency Management, Division of State Police P. O. Box 7068, West Trenton, NJ 08628-0068</p> <p><b>Lt. Robert Little, State Hazard Mitigation Officer</b> Telephone: (609) 963-6963; Fax: (609) 530-3649; Email: <a href="mailto:NJMitigation@gw.njsp.org">NJMitigation@gw.njsp.org</a></p>



# Federal Grants Management

## Summary of Post-Award Requirements

Once a Federal Grant is approved, the following administrative elements are required:

### QUARTERLY REPORTS

- Financial Status Reports (SF 269A)
- Federal Cash Transaction Report (SF 272)

Quarterly Reports ensure that all advanced funds are disbursed within 3 days

ALL REPORTS ARE DUE 30 DAYS AFTER THE END OF EACH QUARTER

QUARTER ENDS ON: March 31; June 30; September 30 and December 31

### PAYMENT

Request for an Advance or Reimbursement

- Use SF 270 (as needed but should attempt at least quarterly)
- Submit memo itemizing costs and changes
- Actual source documentation should be retained in files for auditing purposes

### CHANGES

Changes requiring prior approval

- Need for additional funding
- Change to the Scope of Work
- Change of key persons
- Cumulative transfers among direct cost categories which exceed 10 percent of the current total award, whenever the awarding agency's share exceeds \$100,000.
- Transfer of funds allotted for training
- Sub-granting or contracting out
- Extension of performance period
- Capital equipment (A-87, Att. B, 19)
- Cost of membership to social, civic, or community organizations as a direct cost
- Pre-award costs (A-87, Att. B. 32)
- Travel costs of officials covered by section 23 (A-87, Att. B, 41.a.)

***Make sure to get all prior approvals in writing!***



## CLOSE-OUT

- Final financial reports (SF 269) and (SF 272) are due 90 days after the expiration of the grant
- Unless an extension is granted, all funds must be requested and liquidated at this time
- After receipt of all closeout documents, FEMA will make all cost adjustments or disallowances to the allowable costs
- Grantee is expected to refund any balance of un-obligated or unencumbered funds immediately

## AUDITS

- OMB-Circular A-133 “Audits of States, Local Governments, and Non-Profit Organizations” that expend financial assistance of \$500,000 or more in Federal awards must have a Single or Program-specific audit conducted for the year

## FILES

- Records and accounts are to be retained for a period of not less than 3 years after closeout unless there is some litigation or audit.

## ACQUISITIONS

- Land acquisition projects are subject to bi-annual site inspections with confirmation by photos and official statement. In the case of multiple acquisitions, inspections will start two years after the first closing.

## Grant Resource References

- **Grants Management Forms:**[http://www.whitehouse.gov/omb/grants/grants\\_forms.html](http://www.whitehouse.gov/omb/grants/grants_forms.html)  
[http://www.whitehouse.gov/omb/grants/grants\\_forms.html](http://www.whitehouse.gov/omb/grants/grants_forms.html)
- **Code of Federal Regulations 44 CFR Part 13**[http://www.access.gpo.gov/nara/cfr/waisidx\\_05/44cfr13\\_05.html](http://www.access.gpo.gov/nara/cfr/waisidx_05/44cfr13_05.html)  
[http://www.access.gpo.gov/nara/cfr/waisidx\\_05/44cfr13\\_05.html](http://www.access.gpo.gov/nara/cfr/waisidx_05/44cfr13_05.html)
- **OMB Circular A-87 Cost Principles for State, Local and Tribal governments**  
<http://www.whitehouse.gov/omb/circulars/a087/a087-all.html>
- **OMB Circular A-102 – Administrative Principles**<http://www.whitehouse.gov/omb/circulars/a102/a102.html>  
<http://www.whitehouse.gov/omb/circulars/a102/a102.html>

### For more information Contact:

- NJOEM Division of State Police, P. O. Box 7068, West Trenton, NJ 08628-0068

**Lt. Robert Little, State Hazard Mitigation Officer**

Tele: (609) 963-6963    Fax: (609) 530-3649    Email: [NJMitigation@gw.njsp.org](mailto:NJMitigation@gw.njsp.org)



# CORE FEMA MITIGATION PUBLICATIONS

These publications have been identified by FEMA as highly recommended by subject matter experts.

HAZARD/ PROGRAM	FEMA #	PUBLICATION TITLE	TYPE	PRIMARY AUDIENCE
EARTHQUAKE	F-232	Homebuilders' Guide to Earthquake-Resistant Design and Construction	Guidelines	Bldg Professionals & Engineers
	F-526	Earthquake Safety Checklist	Checklist	General Public
	F-530	Earthquake Safety Guide for Homeowners	Guidelines	Homeowner
	FEMA	How to Series: Protecting Your Property from Earthquakes	Guidelines	General Public
FIRE	FEMA	Avoiding Wildfire Damage: Homeowner's Checklist	Checklist	Homeowner
FLOOD AND FLOOD INSURANCE	F-001	What You Need to Know About Federal Disaster Assistance and Federal Flood Insurance	Fact sheet	General Public
	F-002	Myths and Facts About the NFIP	Fact sheet	General Public
	F-073	The Choice Is Yours	Brochure	General Public
	F-084	Answers to Questions About the NFIP	Booklet	General Public
	F-300	Increased Cost of Compliance Coverage - How You Can Benefit	Brochure	General Public
	F-301	Top 10 Facts Every Consumer Needs to Know About the NFIP	Fact sheet	General Public
	F-301S	Top 10 Facts Every Consumer Needs to Know About the NFIP en Espanol	Fact sheet	Spanish
	F-663	Increased Cost of Compliance Coverage - Creating a Safer Future	Brochure	General Public
	F-679	NFIP Summary of Coverage	Booklet	General Public
	F-679S	NFIP Summary of Coverage en Espanol	Guidelines	Spanish
	F-687	Flood Insurance Claims Handbook	Guidelines	General Public
	F-687S	Flood Insurance Claims Handbook en Espanol	Guidelines	Spanish
	F-054	Elevated Residential Structures	Guidelines	General Public
	F-114	Design Manual for Retrofitting Floodprone Residential Structures	Booklet	General Public
	F-186	Mandatory Purchase of Flood Insurance Guidelines	Guidelines	General Public
	F-209	Flood: Are You Protected from the Next Disaster?	Guidelines	Homeowner, Business
	F-210	Tips on Handling Your Flood Insurance Claim	Webpage	General Public
	F-234	Repairing Your Flooded Home	Booklet	Homeowner
	F-234S	Repairing Your Flooded Home en Espanol	Guidelines	Spanish
	GPO-500-793	Protecting Your Property from Flooding	Booklet	General Public
	EPA	A Brief Guide to Mold, Moisture, and Your Home	Guidelines	Homeowner
	EPA	A Brief Guide to Mold, Moisture, and Your Home en Espanol	Guidelines	Spanish
CDC	Get Rid of Mold	Fact sheet	Homeowner	
FEMA	How to Series: Protecting Your Property from Flooding	Guidelines	Community	
HEAT	FEMA	What to do before extreme heat	Webpage	General Public
HURRICANES	FEMA	Avoiding Hurricane Damage: A Checklist for Homeowners	Checklist	Homeowner
MULTIHAZARD	F-243E	Disaster Preparedness Coloring Book	Booklet	Children
	F-292	After Disaster Strikes: How to Recover Financially from a Natural Disaster	Guidelines	General Public
	F-292S	After Disaster Strikes: How to Recover Financially from a Natural Disaster en Espanol	Guidelines	Spanish
	F-478	Helping Children Cope with Disaster	Guidelines	Children
		Ounce of Prevention	Brochure	General Public
TORNADOS	F-320	Taking Shelter from the Storm, Building a Safe Room inside your House	Guidelines	Bldg Professionals & Engineers
WIND	FEMA	How to Series: Protecting your Property from High Winds	Guidelines	General Public

Additional copies can be ordered directly from: **FEMA Publications, PO Box 2012, Jessup, MD 20794-2012**

For a full listing of nearly 300 titles, specific questions or additional information about an order, contact FEMA Publications at 1-800-480-2520 or by fax at 301-362-5335. Monday to Friday, 8:00 am – 5:00 pm EST.

For more information Contact: [NJOEM, Division of State Police, P. O. Box 7068, West Trenton, NJ 08628-0068](mailto:NJOEM, Division of State Police, P. O. Box 7068, West Trenton, NJ 08628-0068)

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## Consequences of not having a FEMA Approved All Hazards Mitigation Plan

ELIGIBILITY FOR PRE-DISASTER HAZARD MITIGATION ASSISTASNCE (HMA) GRANTS		
For the Annual <sup>1</sup> Competitive PDM Cycle, if the...	Then the Applicant <sup>2</sup> is eligible for...	Then Sub-applicant <sup>3</sup> is eligible for...
<ul style="list-style-type: none"> <li>State Plan is FEMA approved and Local Plan is FEMA approved by the date of selection</li> </ul>	PDM Planning & project grants	PDM Planning & project grants
<ul style="list-style-type: none"> <li>State plan is FEMA approved and Local Plan is not approved by the date of selection</li> </ul>	PDM Planning & project grants	PDM Planning grant
<ul style="list-style-type: none"> <li>State plan is not approved and Local Plan is FEMA approved by the date of selection</li> </ul>	PDM Planning grant	PDM Planning grant
<ul style="list-style-type: none"> <li>State Plan is not approved and Local Plan is not approved by the date of selection</li> </ul>	PDM Planning grant	PDM Planning grant
<p><sup>1</sup> <b>Date of Selection</b> is defined as the date on which the National Evaluation is completed, and sub-applications are presented to the Approving Federal Official (this date is provided in the Annual Fiscal Year PDM Program Guidance).</p> <p><sup>2</sup> <b>Applicant</b> is defined as the State.</p> <p><sup>3</sup> <b>Sub-applicant:</b> local governments, universities, river authorities, etc</p>		

ELIGIBILITY FOR PUBLIC ASSISTANCE GRANTS										
For disasters declared after November 1, 2004: if the...	Then Sub-grantee is eligible for...									
<ul style="list-style-type: none"> <li>State Plan is FEMA approved and Local Plan is FEMA approved</li> </ul>	Categories A-G									
<ul style="list-style-type: none"> <li>State plan is FEMA approved/re-approved and Local Plan is not approved</li> </ul>	Categories A-G									
<ul style="list-style-type: none"> <li>State plan is not approved/re-approved and Local Plan is FEMA approved</li> </ul>	Categories A and B only									
<ul style="list-style-type: none"> <li>State Plan is not approved/re-approved and Local Plan is not approved</li> </ul>	Categories A and B only									
<ul style="list-style-type: none"> <li>State Plan is not approved/re-approved (but deadline extended until May 1, 2005) and Local Plan is FEMA approved</li> </ul>	Categories A-G									
<ul style="list-style-type: none"> <li>State Plan is not approved/re-approved (but deadline extended until May 1, 2005) and Local Plan is not approved</li> </ul>	Categories A-G									
<p>➤ <b>THERE IS NO REQUIREMENT FOR LOCAL MITIGATION PLANS AS A CONDITION OF RECEIVING PUBLIC ASSISTANCE GRANT FUNDS.</b></p> <p>➤ PA Categories</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">A – Debris Removal</td> <td style="width: 33%;">B – Emergency Protective Measures</td> <td style="width: 33%;">C – Roads &amp; Bridges</td> </tr> <tr> <td>D – Water Control Facilities</td> <td>E – Buildings &amp; Equipment</td> <td>F – Utilities</td> </tr> <tr> <td colspan="3">G – Parks, Recreational Facilities, and other items</td> </tr> </table>		A – Debris Removal	B – Emergency Protective Measures	C – Roads & Bridges	D – Water Control Facilities	E – Buildings & Equipment	F – Utilities	G – Parks, Recreational Facilities, and other items		
A – Debris Removal	B – Emergency Protective Measures	C – Roads & Bridges								
D – Water Control Facilities	E – Buildings & Equipment	F – Utilities								
G – Parks, Recreational Facilities, and other items										

## .ELIGIBILITY FOR HAZARD MITIGATION GRANT PROGRAM (HMGP) GRANTS

For disasters declared after November 1, 2004: if the...	Then the Grantee is eligible for...	Then Sub-grantee is eligible for...
<ul style="list-style-type: none"> <li>▪ State Plan is FEMA approved/re-approved and Local Plan is FEMA approved</li> </ul>	HMGP Planning & project grants	HMGP Planning & project grants
<ul style="list-style-type: none"> <li>▪ State plan is FEMA approved/re-approved and Local Plan is not approved</li> </ul>	HMGP Planning & project grants	HMGP Planning grant
<ul style="list-style-type: none"> <li>▪ State plan is not approved/re-approved and Local Plan is FEMA approved</li> </ul>	No HMGP available	No HMGP available
<ul style="list-style-type: none"> <li>▪ State Plan is not approved and Local Plan is not approved</li> </ul>	No HMGP available	No HMGP available
<ul style="list-style-type: none"> <li>▪ State Plan is not approved/re-approved (but deadline extended until May 1, 2008) and Local Plan is FEMA approved</li> </ul>	HMGP Planning & Project grants	HMGP Planning & project grants
<ul style="list-style-type: none"> <li>▪ State Plan is not approved/re-approved (but deadline extended until May 1, 2008) and Local Plan is not approved</li> </ul>	HMGP Planning & Project grants	HMGP Planning grant
<ul style="list-style-type: none"> <li>➢ After November 1, 2004 – <b>in extraordinary circumstances</b>, a local government may receive a project grant if it does not have a FEMA approved plan if it agrees to complete the plan within 12 months of receiving grant funds. If the plan is not completed within the 12-month period, funding will be discontinued regardless of project status.</li> <li>➢ After May 1, 2005, for States that received an extension but do not have an approved/re-approved plan, HMGP assistance will not be available to either Grantees or Sub-grantees.</li> </ul>		

### FOR SINGLE HAZARD, FLOOD-RELATED GRANTS

- Under the **Repetitive Flood Claims (RFC) Grant Program** and the **Severe Repetitive Loss (SRL) Program** a FEMA-approved State standard or enhanced all hazard mitigation plan is **required**.
- The State Plan must address how the state has and will continue to reduce the number of severe repetitive loss properties.
- A local plan is required under the SRL
- A local plan is not required under the RFC.
- Under the **Flood Mitigation Assistance Program** a FEMA-approved Flood Mitigation Plan is required.
- Municipalities are encouraged to upgrade Flood Mitigation Plans to All Hazard Mitigation Plans.

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**For more information Contact:** New Jersey Office of Emergency Management, Division of State Police  
P. O. Box 7068, West Trenton, NJ 08628-0068

**Lt. Robert Little, State Hazard Mitigation Officer**

Telephone: (609) 963-6963

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Email: [NJMitigation @gw.njsp.org](mailto:NJMitigation@gw.njsp.org)

## Municipal Dedicated Open Space resulting from a FEMA Property Acquisition Grant requiring Bi-annual inspection

		FEMA Program	Federal \$ Share P=Pending	Property Acquisition			Number of properties acquired
				* Those underlined appear on the DEP ROSI			
				Address	Block/lot		
Boonton Town	Morris	HFSA 4295	432,082	7 Overlook Rd	Block 41205 Lot 40	9/24/01	4
				15 Overlook Rd	Block 41205 Lot 37	9/24/01	
				19 Overlook Rd	Block 41205 Lot 35	9/24/01	
				23 Overlook Rd	Block 41205 Lot 33	9/24/01	
Branchburg Township	Somerset	HMGP 1295	506,444	1044 Route 28	Block 8 Lot 11	5/9/01	3
				1032 Route 28	Block 8 Lot 6	3/3/01	
				1038-40 Route 28	Block 8 Lot 4	3/31/01	
Bridgewater	Somerset	HMGP 1145	227,659	6 Wayne Ave	Block 131 Lot 1	6/5/00	3
				3 Wayne Ave	Block 132 Lot 2	6/5/00	
				2 Wayne Ave	Block 128 Lot 9	6/5/00	
Collingswood	Camden	HMGP 1295	2,299,669	102 Richey Ave	Block 128 Lot 14	11/01/01	30
				104 Richey Ave	Block 128 Lot 15	11/01/01	
				106 Richey Ave	Block 128 Lot 16	11/01/01	
				108 Richey Ave	Block 128 Lot 17	11/01/01	
				110 Richey Ave	Block 128 Lot 18	11/01/01	
				112 Richey Ave	Block 128 Lot 19	11/01/01	
				114 Richey Ave	Block 128 Lot 20	11/01/01	
				116 Richey Ave	Block 128 Lot 21	11/01/01	
				118 Richey Ave	Block 128 Lot 22	11/01/01	
				120 Richey Ave	Block 128 Lot 23	11/01/01	
				122 Richey Ave	Block 128 Lot 24	11/01/01	
				124 Richey Ave	Block 128 Lot 25	11/01/01	
				126 Richey Ave	Block 128 Lot 26	11/01/01	
				128 Richey Ave	Block 128 Lot 27	11/01/01	
				130 Richey Ave	Block 128 Lot 28	11/01/01	
				132 Richey Ave	Block 128 Lot 29	11/01/01	
				134 Richey Ave	Block 128 Lot 30	11/01/01	
136 Richey Ave	Block 128 Lot 31	11/01/01					
138 Richey Ave	Block 128 Lot 32	11/01/01					
140 Richey Ave	Block 128 Lot 33	11/01/01					

## Municipal Dedicated Open Space resulting from a FEMA Property Acquisition Grant requiring Bi-annual inspection

				142 Richey Ave	Block 128 Lot 34	11/01/01	
				144 Richey Ave	Block 128 Lot 35	11/01/01	
				146 Richey Ave	Block 128 Lot 36	11/01/01	
				148 Richey Ave	Block 128 Lot 3	11/01/01	
				150 Richey Ave	Block 128 Lot 40	11/01/01	
				152 Richey Ave	Block 128 Lot 41	11/01/01	
				154 Richey Ave	Block 128 Lot 42	11/01/01	
				156 Richey Ave	Block 128 Lot 43	11/01/01	
				158 Richey Ave	Block 128 Lot 44	11/01/01	
				501 W. Crescent Blvd	Block 128 Lot 3.01	11/01/01	
Ewing Township	Mercer	FMA	523,045	1827 N. Olden Ave	Block 118 Lot 39		4
				1833 N. Olden Ave	Block 118 Lot 62		
				1823-35 N. Olden Ave	Block 118 Lot 49		
				1829 N. Olden Ave	Block 118 Lot 62		
Frenchtown	Hunterdon	RFC	1,000,000 P	23 Trenton Ave	Block 52 Lot 7		2
				7 So Washington Street	Block 60 Lot 1		
Harmony	Warren	FMA	2,200,000 P	Property Acquisition In process			9
Harmony	Warren	FMA	674,640	Property Acquisition In process			3
Harmony	Warren	HMGP	858,900	Property Acquisition In process			5
Hillsdale Bergen Co		HFSA 4295	393,975	63 Hazelwood Dr.	Block 1106 Lot 23	2/7/01	3
				27 Beechwood Dr.	Block 1108 Lot 02	11/5/01	
				25 Glendale Dr.	Block 1111 Lot 06	11/12/01	
DEP (Lincoln Park)	Morris	SRL 10	3,673,134	11 Elm Street LP			15
				11 Dubrow Street LP			
				19 Elm Street LP			
				155 Riveredge Road LP			
				185 Riveredge Road LP			
				8 Poplar Avenue LP			
				44Midwood Road LP			
				2 Bank Lane LP			
				5 Bank Lane LP			
				10 Bank Lane LP			
				36 Lisa Road LP			
				37 Woodlawn Road :P			
				567 Ryersobn Road LP			
				32 Oak Street LP			

## Municipal Dedicated Open Space resulting from a FEMA Property Acquisition Grant requiring Bi-annual inspection

				13Elm Street LP			
Little Falls	Passaic	RFC 2006	434,000 P	14 Williams Street			4
Little Falls	Passaic	RFC 2007	1,500,000 P	29 Louis Street	Block 68 Lot 35-02		4
				32 Louis Street	Block 69 Lot 10		
				2 Roselle Street	Block 81 Lot 46		
				33 Louis Street	Block 68 Lot 33		
Lodi	Bergen	HFSAP 4295	297,187	5 Borig Pl.	Block 145 Lot 26.01	6/15/01	2
				174 Hamilton Ave	Block 253 Lot 9	7/31/01	
Manville	Somerset			7 Liberty St	Block 306 Lot 32		
				418 Huff Ave	Block 169 L9-11		
				214 Boesel Ave	Block 298 Lot 7		
				59 Lincoln Ave	Block 288 Lot 41		
				128 Boesel Ave	Block 289 Lot 14		
				127 Lincoln Ave	Block 289 Lot 24		
				87 Lincoln Ave	Block 288 Lot 32		
				208 Boesel Ave	Block 298 Lot 4		
				218 Boesel Ave	Block 298 Lot 9A		
				124 Boesel Ave	Block 289 Lot 12		
				117 Lincoln Ave	Block 289 Lot 29		
				116 Boesel Ave	Block 289 Lot 8		
	426 Huff Ave			Block 169 Lot 13a			
	111 Lincoln Ave			Block 289 Lot 33			
	420 Huff Ave			Block 169 Lot 11A			
	210 Kyle St.			Block 286 Lot 1C			
	208 Huff Ave			Block 297 Lot 1, 2			
	46 Boesel Ave			Block 288 Lot 5, 6-10			
	508 Huff Ave			Block 170 Lot 5, 6			
	671 Manville Ave			Block 173 Lot 9, 10, 11			
	120 Boesel Ave			Block 289 Lot 10, 11			
	603 Huff Ave			Block 174 Lot 8, 9, 10			
	525 Huff Ave			Block 168 Lot 8A, 11, 12			
	609 Huff Ave			Block 174 Lot 11, 12			
213 Boesel Ave	Block 297 Lot 29, 30, 31						
613 Huff Ave	Block 174 Lot 13, 14-16						
608 Huff Ave	Block 177 Lot 5-6						
136 Huff Ave	Block 286 Lot 1A						
535 Huff Ave	Block 168 Lot 13, 14-16						
522 Huff Ave	Block 170 Lot 11A, 12-14						



## Municipal Dedicated Open Space resulting from a FEMA Property Acquisition Grant requiring Bi-annual inspection

				54 South Park St.	Block 293 Lot 34, 35-36			
				201 Huff Ave	Block 293 Lot 34, 35-36			
				208 Kyle St.	Block 286 Lot 1B			
				107 Lincoln Ave	Block 289 Lot 35, 36			
				50 So. Reading St.	Block 168 Lot 8, 9, 10			
				208 Huff Ave	Block 297 Lot 3, 4-6			
				213 Huff Ave	Block 293 Lot 29, 30, 31			
				102 Boesel Ave	Block 289 Lot 1, 2			
				74 Boesel Ave	Block 288 Lot 21, 22-23			
				78 Boesel Ave	Bl 288 Lot 23A. 24, 25			
				58 So. Bank St.	Block 174 Lot 6, 7, 16A			
				518 Huff Ave	Block 170 Lot 9, 10-11			
				315 Benjamin St.	Block ? Lot ?			
Middlesex Boro	Middlesex	HMGP 4295	1,632,281	245 Raritan Ave	Block 126 Lot 4 O	11/22/01	10	
				251 Raritan Ave	Block 126 Lot 4 N	11/22/01		
				305 Raritan Ave	Block 126 Lot 4 M	11/22/01		
				311 Raritan Ave	Block 126 Lot 4 L	11/22/01		
				317 Raritan Ave	Block 126 Lot 4 K	11/22/01		
				323 Raritan Ave	Block 126 Lot 4 J	11/22/01		
				329 Raritan Ave	Block 126 Lot 4 I	11/22/01		
				335 Raritan Ave	Block 126 Lot 4 H	11/22/01		
				403 Raritan Ave	Block 126 Lot 4 G	11/22/01		
				239 Raritan Ave	Block 126 Lot 4 F	11/22/01		
				245 Raritan Ave	Block 126 Lot 4 O	11/22/01		
Morristown	Morris	HMGP 1295	148,782	7 Knox Rd	Block 8802 Lot 24	10/16/01		2
				7 Coal Ave	Block 3502 Lot 3	10/16/01		
Nutley	Essex	FMA 10					2	
Nutley	Essex	RFC 10					2	
Nutley	Essex	RFC 11	1,664,000				2	
Pohatcong	Warren	HMGP	366,550 P	381 River Road	Block 97 Lot 54		2	
				383 River Road	Block 97 Lot 53	5/9/07		
DEP (Pompton Lakes Wayne Little Falls)	Passaic	SRL 10	2,763,900	1711 Lincoln Avenue PL			8	
				1712 Lincon Avenue PL				
				10 Willow Avenue PL				
				12 Willow Avenue PL				
				6 Walnut Avenue PL				
				76 Ryerson Avenue Wy				
				30 Riverview Circle LF				
				1600 Lincoln Avenue PL				

## Municipal Dedicated Open Space resulting from a FEMA Property Acquisition Grant requiring Bi-annual inspection

Rahway	Union	FMA	317,073	521 Central Ave	Block 168 Lot 15	11/20/05	7
				537 Central Ave	Block 168 Lot 17	11/20/01	
				1084 Allen St.	Block 223 Lots 3-4	4/31/98	
				191-195 Union St.	Block 224 Lot 45	4/31/98	
				207 Union St.	Block 224 Lot 53	4/31/98	
				1794 Allen St.	Block 23 Lot 5	4/31/98	
				1820 Allen St.	Block 223 Lot 1	4/31/98	
				Rahway	Union	HFSA 4295	
				894 Inwood Pl.	Block 136 Lot 24	9/17/01	
Sparta	Sussex	HMGP 1337	157,913	238 Glen Ave	Block 6 Lot 103	6/18/02	1
Springfield	Union	HMGP 1295	90,000	Property Acquisition In process			3
Tewksbury	Warren	HMGP 1295		100 Oldwick Road	Block 49 Lot 5.2	6/18/02	1
Trenton	Mercer	HMGP 1206	476,631	21 Mulbuerry St	Block 302 Lot 472, 463	9/26/01	34
				23 Mulbuerry St	Block 203 Lot 464	9/26/01	
				25 Mulbuerry St	Block 203 Lot 466	10/31/01	
				27 Mulbuerry St	Block 203 Lot 519	10/30/01	
				29 Mulbuerry St	Block 203 Lot 518	11/06/01	
				31 Mulbuerry St	Block 203 Lot 517	10/31/01	
				33 Mulbuerry St	Block 203 Lot 475	10/29/01	
				35 Mulbuerry St	Block 203 Lot 465	10/31/01	
				37 Mulbuerry St	Block 203 Lot 501	10/31/01	
				39 Mulbuerry St	Block 203 Lot 502	10/29/01	
				41 Mulbuerry St	Block 203 Lot 503	10/12/01	
				43 Mulbuerry St	Block 203 Lot 504		
				45 Mulbuerry St	Block 203 Lot 3	10/12/01	
				49 Mulbuerry St	Block 203 Lot 6	05/19/00	
				51 Mulbuerry St	Block 203 Lot 509	10/31/01	
				53 Mulbuerry St	Block 203 Lot 5	12/26/01	
				55 Mulbuerry St	Block 203 Lot 510		
				57 Mulbuerry St	Block 203 Lot 511	10/12/01	
				59 Mulbuerry St	Block 203 Lot 512	10/29/01	
				61 Mulbuerry St	Block 203 Lot 513	07/20/00	
63-65 Mulbuerry St	BI 203 Lot 1, 514	05/10/01					
67 Mulbuerry St	Block 203 Lot 515	06/28/00					
69 Mulbuerry St	Block 203 Lot 516	08/09/00					
71 Mulbuerry St	BI 207 Lot 1162	06/28/00					
73 Mulbuerry St	BI 207 Lot 1163	06/28/00					

Municipal Dedicated Open Space resulting from a FEMA Property Acquisition Grant  
requiring Bi-annual inspection

				75 Mulberry St	BI 207 Lot 1164	06/28/00	
				77 Mulberry St	BI 207 Lot 1165	06/28/00	
				79 Mulberry St	Block 207 Lot 2	06/28/00	
				81 Mulberry St	BI 207 Lot 1166	03/21/01	
				83 Mulberry St	BI 207 Lot 1167	02/27/01	
				85 Mulberry St	BI 207 Lot 1168	02/27/01	
				87 Mulberry St	BI 207 Lot 1174	09/28/00	
				91 Mulberry St	BI 207 Lot 1133	02/27/00	
				95 Mulberry St	BI 207 Lot 1135, 1175	09/27/00	
Wayne	Passaic	FMA 09	2,999,985				15
Wayne	Passaic	HMGP 1530					20
							76



# What is Mitigation

Mitigation is the effort to reduce loss of life and property by lessening the impact of disasters.

Mitigation is achieved through:

- Analyzing risks and developing strategies that results in information that provides a foundation for mitigation activities
- Reducing risks that protect people, property and financial investment
- Securing adequate flood insurance coverage and
- Providing benefits to society as a whole.

## Risk Analysis

Government agencies must understand the full impact of natural hazards using applied multi-hazard engineering science and advanced technology in order to effectively plan to reduce natural hazard effects.

## Risk Reduction

The goal of risk reduction is to reduce the risk to life and property, which includes existing structures and future construction, in the pre and post-disaster environments. This is achieved through regulations, local ordinances, land use and building practices, and Mitigation projects that reduce or eliminate long-term risk from hazards and their effects.

## Flood Insurance

FEMA's Mitigation Directorate manages the National Flood Insurance Program (NFIP) and implements a variety of programs authorized by Congress to reduce losses that may result from natural disasters. Effective Mitigation efforts can break the cycle of disaster damage, reconstruction, and repeated damage

The NFIP goal is to reduce the impact of flooding on private and public structures by providing affordable insurance for property owners. The program encourages communities to adopt and enforce floodplain management regulations, which will mitigate the effects of flooding on new and improved structures.

The NFIP is helping communities reduce the socio-economic impact of disasters by promoting the purchase and retention of both Risk Insurance and National Flood Insurance.

# Mitigation's Value to Society

Mitigation is valuable to society in these ways:

- It creates safer communities by reducing loss of life and property damage. For example, the rigorous building standards adopted by 20,000 communities across the country are saving the nation more than \$1.1 billion a year in prevented flood damages.
- It allows individuals to minimize post-flood disaster disruptions and recover more rapidly. For example, homes built to NFIP standards incur less damage from floods. And when floods do cause damages, flood insurance protects the homeowner's investment, as it did for the more than 200,000 Gulf Coast residents who received more than \$23 billion in payments following the 2005 hurricanes.
- It lessens the financial impact on individuals, communities, and society as a whole. For example, a recent study by the Multi-hazard Mitigation Council shows that each dollar spent on mitigation saves society an average of four dollars.



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P. O. Box 7068, West Trenton, NJ 08628-0068

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# HAZUS<sub>MH</sub><sup>®</sup>

## Earthquake • Wind • Flood

HAZUS<sub>MH</sub> is a Geographical Information System (GIS) software program developed by FEMA to help communities prepare and plan for disaster events and to build safer and stronger places to live and work. HAZUS<sub>MH</sub> is a multi-hazard risk assessment and loss estimation software tool, with technical support, available free of charge.

HAZUS<sub>MH</sub> enables the user to:

- **ANTICIPATE** the scope of damage caused by earthquake, hurricane winds and floods.
- **IDENTIFY** vulnerable area that may require special land use or building code requirements
- **ASSESS** the vulnerability of buildings, essential facilities, and infrastructure
- **ESTIMATE** potential losses from earthquakes, hurricane winds, and flood, and generate real-time reports
- **DEVELOP** state and local risk assessments to support mitigation planning

**How can HAZUS<sub>MH</sub> help?** An important part of comprehensive community planning is understanding risks that may affect the physical, social, and economic components of a community. Communities who understand their vulnerability to natural hazards can make development decisions in light of those hazards and the risks associated with them. HAZUS<sub>MH</sub> can help answer complex questions about the consequences of a hazard event.

**What are the impacts of a hazard event?** HAZUS<sub>MH</sub> helps states, communities, and businesses, prepare for, mitigate the effects of, respond to, and recover from a hazard event. One of the great strengths of HAZUS<sub>MH</sub> is that it provides estimates of hazard related damage before a disaster occurs and takes into account various impacts of a hazard event such as:

- **Physical damage:** damage to residential and commercial buildings, schools, critical facilities, and infrastructure.
- **Economic loss:** lost jobs, business interruptions, repairs and reconstruction costs.
- **Social impacts:** impacts to people, including requirements for shelters and medical aid.

HAZUS<sub>MH</sub> can quantify the risk for a study area of any size: region, state, community, neighborhood, or an individual site. HAZUS<sub>MH</sub> uses GIS technology to combine hazard layers with national databases and applies a standardized loss estimation and risk assessment methodology. The GIS-based environment allows users to create graphics to help communities visualize and understand their hazard risks and solutions. The nationwide database built into HAZUS<sub>MH</sub> include datasets on demographics, building stock, essential facilities, transportation, utilities, and high-potential-loss facilities. HAZUS<sub>MH</sub> can estimate losses using:

- Ground motion and ground failure information to calculate losses for earthquakes.
- Information on wind pressure, windborne missiles, and rain for hurricane winds.
- Flood frequency, depth, discharge and velocity for floods.

HAZUS<sub>MH</sub> can access third-party technological hazard models that address hazardous material releases and dam breaks to include information in the three basic models:

- **Earthquake Model** that provides estimates of damage and loss to buildings, essential facilities, transportation and utility lifelines, and population based on scenario or probabilistic earthquakes. In addition to estimating direct damage, the model addresses debris generation, fire following a disaster, causalities, and shelter requirements.
- **Hurricane Wind Model** which allows users to consider any possible hurricane winds, as well as historic hurricanes, to estimate potential damage and economic losses to residential, commercial, and industrial buildings in states along the Atlantic and Gulf coasts.
- **Flood Model** determines flood risk by nationwide data sets through analyses of possible flooding based on hydrologic information. The Flood Model allows users to characterize flooding and then estimate the expected levels of damage to building and infrastructure.

For more information about HAZUS<sub>MH</sub>, HAZUS users groups, copies of the free software and training opportunities, visit the HAZUS page on the FEMA website at [www.fema.gov/hazus](http://www.fema.gov/hazus), or send an email to [hazus@fema.gov](mailto:hazus@fema.gov)

Regularly scheduled HAZUS training classes are held at the FEMA National Emergency Training Institute (EMI) located on the National Emergency Training Center campus in Emmitsburg, Maryland, 75 miles north of Washington D.C. Courses include:

- **Basic HAZUS** – provides local, state and regional official with a working knowledge of HAZUS methodology and the GIS-based software. Gives a strong understanding of the multi-hazard application of HAZUS toward mitigation, response, recovery, and risk management.
- **HAZUS DMA 2000 Risk Assessment** – three-day course designed to enhance knowledge and capabilities of organizations and individuals to prepare risk assessments using HAZUS.
- **Advances HAZUS for Hurricanes** – provides in-depth instruction on the use of HAZUS for advanced applications related to wind loss modeling.
- **Data Management for HAZUS** – provides in depth instruction on collecting and processing high-resolution hazard/inventory data and integrating the data into HAZUS.
- **Advances HAZUS for Earthquake** - provides in depth instruction on the use of HAZUS for advanced application to earthquake loss modeling.
- **Advances HAZUS for Floods** - provides in depth instruction on the use of HAZUS for advanced applications related to flood loss modeling.

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# Benefit/Cost Analysis

The benefits of a mitigation project are the elimination and/or reduction of future damages and losses. In other words: Benefits are simply avoided damages and losses. Benefits are calculated by estimating future damages and losses with and without undertaking the mitigation project. For benefit-cost analysis (BCA), much of the effort is focused on estimating damages and losses. Mitigation project benefits are calculated by estimating both damages and losses; both before and after the mitigation project and then taking the difference between the two. The greater the damage and losses are prior to mitigation project, the greater the potential benefits of mitigation. The benefits considered in benefit-cost analysis are the benefits to the community, not just the benefits to FEMA or the federal government.

Benefits for a mitigation project fall into four categories:

- Avoided Physical Damages
- Avoided Loss-of-Function Costs
- Avoided Casualties
- Avoided Emergency Management Costs.

A BCA always involves looking at damages and losses twice. The benefits are simply the difference in expected damages and losses before and after the mitigation project are completed.

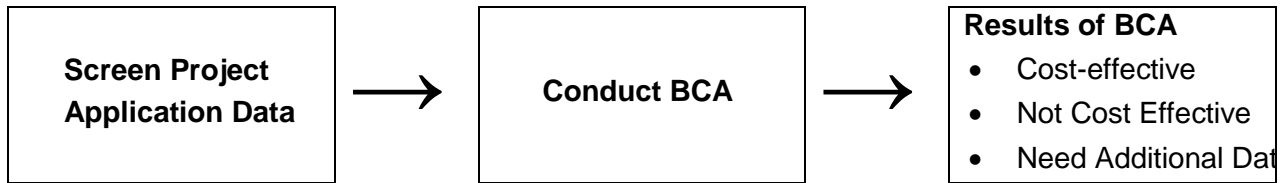
**Using Flooding as an example:** The greater the frequency and depth of flooding for a given home, the higher the annualized damages and losses. To the extent that a mitigation project reduces or eliminates these damages and losses, the greater the potential benefits of the mitigation project. For BCA, a similar calculation is done after mitigation, and then benefits are calculated as the difference between annualized damages with and without undertaking the mitigation project

## Why FEMA requires Benefit-Cost Analysis?

1. To meet the statutory and regulatory requirement eligibility requirement, as specified in the Stafford Act and in 44 CFR. To be eligible for FEMA funding each mitigation project must be shown to be cost-effective. As defined in the regulations, cost-effective means that the benefits of each project must exceed the costs (i.e., that the benefit-cost ratio exceeds 1.0).
2. To determine whether or not a mitigation project is worth doing.
3. To provide a common basis with which to compare and prioritize mitigation projects and to help ensure that limited mitigation funds result in the greatest possible reduction in future damages and losses.
4. And to demonstrate that mitigation works. Benefit-cost analysis can be a powerful tool to help sell the concept of mitigation and to convince individuals and communities that mitigation investments are in their own self interest and their actions are fiscally sound.



## The BCA Review Process (Flooding Example)



**Step 1:** Gather data relating to cost-effectiveness including economic, environmental and engineering data. Often, these data are missing or limited.

Subject	Flood Project Data
Hazard Data (often not included in application)	Flood Insurance Study (FIS) data, or historical flood data from application
First Floor Elevation	Available from engineering surveys or estimated from observed flood depths?
Scope	What problem does the project address? How vulnerable is the building or area?
Cost	Is there a well-documented cost-estimate or only a rough estimate?
Useful Lifetime	How long will the project provide protection against damages and losses?
Economic Considerations	Square footage of the building. Replacement values of the building and contents?
Damage Estimates – <i>Before Mitigation</i>	Why do damages occur? What are the historically-observed damages?
Damage Estimates – <i>After Mitigation</i>	How effective will the project be in reducing future damages

**Step 2:** Determine which benefit-cost analysis tool to use. Provisions are available for conducting a BCA with less than a full set of data. If the project application data are limited or incomplete, then a benefit-cost analysis that uses limited data should be employed. If the data in the project application are more or less complete, then a more robust method of analysis can be used.

- Consider flood depth is expressed in feet of water above the top of the lowest finished floor of the house. Known as the First Floor Elevation, this elevation is measured from sea level.
- Estimate the annual probabilities of floods at each depth are determined by information in the Flood Insurance Study (FIS) for this community. This information is not always available.
- Develop scenario damages and losses - the total damages and losses that are estimated to occur each time a flood of a given depth occurs. These include damages to buildings, contents, and displacement costs. Scenario damage estimates indicate damages when a flood of a given depth occurs; but do not factor in the likelihood of such flooding.
- The expected annual damages and losses consider not only the damages and losses each time flooding occurs but also whether flooding will occur. Mathematically, the expected annual damages and losses are the product of the annual probability of each flood depth and the scenario damages and losses at each flood depth. The sum of the expected annual damages and losses is the best estimate of the total vulnerability of the building to flood damages (both before and after mitigation).

**Step 3:** If the project is cost-effective, the application moves to the next level in the funding process. If it is not cost-effective, the project is rejected.

**Complete information can be found in OMB Circular A-94 and the FEMA Mitigation compact disc BCA Toolkit available by calling 800-480-2520**

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# Flood Mitigation Assistance

**The Flood Mitigation Assistance (FMA) Program** was created as part of the National Flood Insurance Reform Act (NFIRA) of 1994 (42 U.S.C. 4101) with the goal of reducing or eliminating claims under the National Flood Insurance Program (NFIP). FMA regulations can be found in 44 CFR Part 78. Funding for the program is provided through the National Flood Insurance Fund. FMA has been funded annually at \$20 million for the entire nation.

FMA provides funding to assist communities in implementing measures to reduce or eliminate the long-term risk of flood damage to structures insurable under the National Flood Insurance Program (NFIP).

- **Focus:** protection or removal insured structures from the floodplain.
- **Target:** States, communities, certain private nonprofit organizations and Native American tribes participating in the National Flood Insurance Program.
- **Projects:** elevation, acquisition, and relocation of NFIP-insured structures.
- **Funding** allocated annually to the State for both planning and project grants. Caps exist on amounts that can be received by applicants and the number of grants an applicant can receive in a five-year period.
- **Cost-share:** 75 Federal /25 Local

NFIP-participating communities with approved Flood Mitigation Plans can apply for FMA Project Grants to implement measures to reduce flood losses.

The New Jersey State All Hazard Mitigation Plan has identified mitigation of repetitive flood loss as a high action strategy. These targeted properties include structures with four or more losses, and structures with 2 or more losses where cumulative payments have exceeded the property value.

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# FEMA's Presidential Declaration Process Fact Sheet

## The Emergency Response Process

### *Preliminary Damage Assessments / The Declarations Process/Primary Considerations for Declarations*

Local emergency and public works personnel, volunteers, humanitarian organizations, and other private interest groups provide emergency assistance required to protect the public's health and safety and to meet immediate human needs.

If necessary, a governor can declare a state of emergency and invoke the state's emergency plan to augment individual and public resources as required.

A governor may determine, after consulting with local government officials, that the recovery appears to be beyond the combined resources of both the state and local governments and that federal assistance may be needed. In requesting supplemental Federal assistance under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121-5206 (Stafford Act), the Governor must certify that the severity and magnitude of the disaster exceed state and local capabilities; certify that Federal assistance is necessary to supplement the efforts and available resources of the state and local governments, disaster relief organizations, and compensation by insurance for disaster related losses; confirm execution of the state's emergency plan; and certify adherence to cost sharing requirements.

Under the declaration process and to assist a governor to determine if a request for assistance should be made, a preliminary damage assessment is conducted. These assessments are conducted in counties affected by the disaster event. FEMA works with the State's emergency management agency to accomplish these assessments.

## The Preliminary Damage Assessment

This preliminary damage assessment team is comprised of personnel from FEMA, the State's emergency management agency, county and local officials and the U.S. Small Business Administration. The team's work begins with reviewing the types of damage or emergency costs incurred by the units of government, and the impact to critical facilities, such as public utilities, hospitals, schools, and fire and police departments. They will also look at the affect on individuals and businesses, including the number damaged, the number of people displaced, and the threat to health and safety caused by the event. Additional data from the Red Cross or other local voluntary agencies may also be reviewed. During the assessment the team will collect estimates of the expenses and damages.

This information can then be used by the Governor to support a declaration request - showing the cost of response efforts, such as emergency personnel overtime, other emergency services, and damage to citizens, is beyond state and local recovery capabilities. The information gathered during the assessment will help the Governor certify that the damage exceeds state and local resources.

## The Declaration Process

As set forth in the Stafford Act, a governor seeks a presidential declaration by submitting a written request to the President through the FEMA regional office. In this request the Governor certifies that the combined local, county and state resources are insufficient and that the situation is beyond their recovery capabilities. Following a FEMA regional and national office review of the request and the findings of the preliminary damage assessment, FEMA provides the President an analysis of the situation and a recommended course of action.

## Criteria Used By FEMA

The federal disaster law restricts the use of arithmetical formulas or other objective standards as the sole basis for determining the need for federal supplemental aid. **As a result, FEMA assesses a number of factors to determine the severity, magnitude, and impact of a disaster event.** In evaluating a Governor's request for a major disaster declaration, a number of primary factors, along with other relevant information, are considered in developing a recommendation to the President for supplemental disaster assistance. Primary factors considered include:

- Amount and type of damage (number of homes destroyed or with major damage);
- Impact on the infrastructure of affected areas or critical facilities;
- Imminent threats to public health and safety;
- Impacts to essential government services and functions;
- Unique capability of Federal government;
- Dispersion or concentration of damage;
- Level of insurance coverage in place for homeowners and public facilities;
- Assistance available from other sources (Federal, State, local, voluntary organizations);
- State and local resource commitments from previous, undeclared events; and
- Frequency of disaster events over recent time period.

The very nature of disasters-their unique circumstances, the unexpected timing, and varied impacts-precludes a complete listing of factors considered when evaluating disaster declaration requests. However, the above lists most primary considerations.

FEMA coordinates the federal government's role in preparing for, preventing, mitigating the effects of, responding to, and recovering from all domestic disasters, whether natural or man-made, including acts of terror.

**For more information Contact:** [New Jersey Office of Emergency Management, Division of State Police](#)

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# Hazard Mitigation Grant Program

## *Building Stronger and Safer*

FEMA's Hazard Mitigation Grant Program (HMGP) provides grants to States, local governments, and Indian tribes for long-term hazard mitigation projects after a major disaster declaration. The purpose of the program is to reduce the loss of life and property in future disasters by funding mitigation measures during the recovery phase of a natural disaster.

### HMGP leads to long-term solutions

HMGP funds can be used to make improvements to public or private property. To be eligible, a project must provide a long-term solution to a specific risk. Examples are:

- **Elevating** flood-prone homes or businesses. The structure is rebuilt with a higher first floor. This allows floodwater to flow under the house rather than through it.
- **Acquisition** of (and either demolishing or relocating) flood-prone homes from willing owners and returning the property to open space. The owner receives a check for the sale, and the local government becomes the new owner of the property.
- **Retrofitting** buildings to minimize damage from high winds, flooding, earthquakes, and other hazards. FEMA and other organizations have worked to develop model code requirements and building guides to aid in the process.
- **Floodwall systems** to protect critical facilities.

### HMGP funds administered by States

During the recovery phase of a disaster, local jurisdictions select projects that could reduce property damage from future disasters, and submit a grant application to the State. Indian tribes and certain nonprofit organizations can also apply. Local governments can apply on behalf of individual property owners. The States administer the HMGP program. They establish mitigation priorities for the State, set a timeline for accepting applications, and award grants based on State criteria and available funding. They can also set limits on grant amounts.

#### HMGP grants available to communities affected by disasters

- **Total grant funding:** For each State, HMGP can provide up to 7.5 percent of the total Federal funds for repairing roads, bridges, and other infrastructure (called Public Assistance) and individual and family grants (called Individual Assistance) in the State. Once Public Assistance and Individual Assistance totals are estimated, FEMA can determine available HMGP funding for each State. However, project planning can begin right away.
- **Funding formula:** FEMA pays up to 75 percent of the project cost. Either the State or applicants covers the remaining 25 percent, though it need not be in cash. In-kind services and materials can be used.

FEMA conducts a final eligibility review to ensure compliance with Federal regulations. HMGP projects must comply with Federal environmental laws and regulations, be cost-effective, and be technically feasible. Federal law requires States and local jurisdictions to have a mitigation plan prior to receipt of HMGP funds. The plan identifies hazards, assesses community needs, and describes a community-wide strategy for reducing risks associated with natural disasters.

### **Additional funding opportunities**

The **Pre-Disaster Mitigation (PDM) Program** assists States, Indian tribes, and local governments with cost-effective hazard mitigation activities that complement a comprehensive mitigation program. The program provides applicants with an opportunity before disasters strike to raise risk awareness and reduce disaster losses through planning and project grants. Potential activities range from plan development to structural retrofits, acquisitions of property in high-risk areas, and safe room construction.

PDM applicants compete for funding on a national basis. Public colleges and universities can apply as sub-applicants through a State or local government. In addition, State or local governments can apply on behalf of private non-profit organizations and institutions. The program operates on an annual cycle and is subject to Congressional appropriations.

FEMA's **Flood Mitigation Assistance (FMA)** is a pre-disaster program that provides project, planning, and technical assistance grants to States and communities to help reduce or eliminate the risk of repetitive flood damage. Mitigation projects must address buildings and structures that are insurable under the National Flood Insurance Program (NFIP). The States set mitigation priorities and award grant applications.

#### **Property acquisitions:**

##### **Removing people and property from harm's way**

Federal acquisition of property can be an effective way to move people and property away from high-risk areas. An acquisition can apply to a single piece of property or an entire neighborhood.

Acquisition projects are voluntary and homeowners are never forced to sell their property. The decision to buy damaged property is made by the local government and the property owners, not FEMA. Once an acquisition project is approved by the state and FEMA, the community uses Federal funds to purchase the home or building, and the land is restricted to open space, recreation, or wetlands in perpetuity.

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# Allowable Mitigation Projects

**Mitigation is the effort to reduce loss of life and property by lessening the impact of disasters.**

Allowable or “fundable” FEMA projects under the Hazard Mitigation Grant Program (HMGP) and the Pre-Disaster Mitigation Grant Program (PDM) can address all natural hazards issues while the Flood Mitigation Assistance Program (FMA), the Repetitive Flood Claims Program (RFC) and the Severe Repetitive Loss Grant Program (SRL) address flood issues.

Allowable Mitigation Projects	FEMA HMA Programs				
	HMGP	FMA	PDM	RFC	SRL
Elevate and/or relocate flood-prone homes or businesses	✓	✓	✓	✓	✓
Acquire (and either demolish or relocate) flood-prone homes from willing owners and return the property to open space	✓	✓	✓	✓	✓
Retrofit and structural improvements to buildings to minimize damage from high winds, flooding, earthquakes, and other hazards	✓	✓	✓		
Planning grants to develop Flood and All Hazard Mitigation Plans	✓	✓	✓		
Develop or improve warning systems	✓				
Localized (minor) flood control projects that are designed specifically to protect critical facilities such as <ul style="list-style-type: none"> <li>• installation of culverts and floodgates</li> <li>• construction of retention and detention basins</li> <li>• upgrade culverts to bridges</li> </ul>	✓	✓	✓	✓	✓
Protective measures for utilities	✓		✓		
Community-wide or system-wide storm water management projects	✓		✓		
Dry floodproofing measures for non-residential properties		✓		✓	✓
Construct safe rooms inside schools and other buildings in tornado prone areas	✓		✓		
Sand fencing and vegetation management for natural dune restoration, wildfire control, landslide or snow avalanche		✓	✓		
Beach nourishment		✓			
Hydrologic and hydraulic, engineering and drainage studies when part of a larger project			✓		

\* All applications are subject to individual review and approval. Program guidance is available on the FEMA.gov website.

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# The Repetitive Flood Claim Program

The Repetitive Flood Claims (RFC) grant program provides funding to reduce or eliminate the long-term risk of flood damage to structures insured under the National Flood Insurance Program (NFIP) that have had one or more claim payments for flood damages. The long-term goal of RFC is to reduce or eliminate claims under the NFIP through mitigation activities that are in the best interest of the National Flood Insurance Fund (NFIF).

Applications will be accepted for any insured property that has one or more claim payments for flood damages and is located within a State or community that can not meet the requirements of the FMA program for either cost share or capacity to manage the activities stipulations. RFC awards will prioritize projects that create the greatest savings to the NFIF based on a Benefit-Cost Analysis (BCA).

## **APPLICATION CONSIDERATION IN OTHER MITIGATION GRANT PROGRAMS:**

FEMA may determine that subapplications submitted under a specific grant program and not funded under the requested grant program may be considered by another mitigation grant program(s). FEMA may request additional information from the Applicant. The Applicant must provide all requested information within the specified timeframe.

## **FUNDS:**

RFC grants are awarded nationally without reference to State allocations, quotas, or other formula-based allocation(s) of funds. The RFC program is subject to the availability of appropriation funding.

## **ELIGIBLE ACTIVITIES:**

RFC funds are available for mitigation projects that:

- Acquire insured properties that have one or more claim payments for flood damages and demolish or relocate structures, with conversion of property to deed-restricted open-space use;
- Elevations;
- Dry Floodproofing of non-residential structures;
- Minor Localized Flood Control Projects (funding limited to \$1M per project).

## **COST-SHARE:**

All RFC grants are eligible for up to 100% Federal assistance.

## **APPLICANT ELIGIBILITY:**

Only the following entities are eligible to apply to FEMA as Applicants: State emergency management agencies or a similar office of the State (*i.e.*, the office that has primary emergency management or floodplain management responsibility). Each State, Territory, or Indian Tribal government shall designate one agency to serve as the Applicant for the RFC program.

## **SUBAPPLICANT ELIGIBILITY:**

State-level agencies; Federally-recognized Indian Tribal governments; and local communities are eligible to apply to the Applicant for assistance. Private individuals and Private Non-Profit (PNP) organizations are **not** eligible subapplicants; however, a relevant State agency or local community may apply to the Applicant for assistance to mitigate private or PNP structures.

## **REDUCED CAPACITY REQUIREMENT:**

RFC funds may only be awarded if the Applicant has certified, either:

- The State and the community are not able to meet the 25% non-Federal match that would otherwise make the activity eligible under the Flood Mitigation Assistance (FMA) program; or



- The State or community does not have the capacity to manage the activities under the FMA program.

### **APPLICATION PROCESS:**

Applicants must use the electronic grants (eGrants) management system: <https://portal.fema.gov> to submit a RFC grant application to include project and management cost subapplications. Only RFC grant applications submitted through the eGrants system will be accepted. If a subapplicant does not use the eGrants system, the Applicant must enter the subapplicant's paper subapplication(s) into the eGrants system on their behalf using the Paper subapplication Intake function. Paper and project subapplications that follow the eGrants format are available in the eGrants system for subapplicants to use. Applicants must provide an original and two copies of any paper supporting documentation that cannot be electronically attached to the eGrants application (e.g., engineering drawings, photos, maps) to the appropriate Regional Office. However the entire application, including all paper documentation, must be received by the appropriate FEMA Regional office by the application deadline. Paper duplicates of attachments submitted with subapplications in eGrants are not necessary.

### **BENEFIT-COST ANALYSIS:**

A Benefit-Cost Analysis (BCA) is required for each project subapplication. Only FEMA-approved BCA methodologies may be used to meet this requirement.

### **TECHNICAL ASSISTANCE:**

FEMA will provide technical assistance by answering questions about the RFC program, as well as providing general technical assistance related to project Engineering Feasibility, Benefit-Cost Analysis, and Environmental/Historic Preservation compliance.

### **APPLICATION REVIEW:**

FEMA will review each project subapplication to ensure the following:

- Eligibility of the Applicant/subapplicant
- Eligibility of proposed activities, properties and costs
- Completeness of the Scope of Work
- Completeness of the Cost Estimate and consistency with the Scope of Work
- Consistency of the proposed activity with the goals and objectives of the Applicant's State/Indian Tribal hazard mitigation plan
- Feasibility and effectiveness of mitigation projects, including supporting documentation
- Benefit-cost ratio of 1.0 or greater for each project subapplication
- Technical accuracy, complete supporting documentation and source credibility of benefit-cost analysis for each project subapplication
- Supporting documentation and appropriate mitigation measures for environmental/historic preservation compliance
- Demonstrated reduced capacity or lack of non-federal cost share under FMA program for State or community

Subapplications that do not satisfy the eligibility and completeness requirements will be removed from consideration.

***Complete program information can be found on the FEMA website at REPETITIVE FLOOD CLAIMS (RFC) PROGRAM GUIDANCE***

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# F E M A – The Agency

FEMA, an agency within the United State Department of Homeland Security, works closely with the New Jersey Office of Emergency Management in responding to, recovering from and putting into place mitigation projects that lessen the impact of disaster events. This listing provides legislative references and web-site sources if additional information is needed. .

## 1. Specific Laws Governing FEMA Operations

- A. **Robert T. Stafford Disaster Relief and Emergency Assistance Act (PL93-288) as amended** - the law under which mitigation was created within FEMA.
- B. **National Flood Insurance Act** of 1968, as amended
- C. **National Flood Insurance Reform Act** of 1994
- D. **Flood Disaster Protection Act** of 1973
  - Internet Resource: [WWW.FEMA.GOV](http://WWW.FEMA.GOV)

## 2. FEMA Grant Programs

- A. **The Hazard Mitigation Grant Program (HMGP)** - [www.fema.gov/government/grant/hmgp/index.shtm](http://www.fema.gov/government/grant/hmgp/index.shtm)
- B. **The Flood Mitigation Assistance (FMA) program** - [www.fema.gov/government/grant/fma/index.shtm](http://www.fema.gov/government/grant/fma/index.shtm)
- C. **The Pre-Disaster Mitigation (PDM) program** - [www.fema.gov/government/grant/pdm/index.shtm](http://www.fema.gov/government/grant/pdm/index.shtm)
- D. **The Repetitive Flood Claims (RFC) program** - [www.fema.gov/government/grant/rfc/index.shtm](http://www.fema.gov/government/grant/rfc/index.shtm)
- E. **The Severe Repetitive Loss (SRL) program** - [www.fema.gov/government/grant/srl/index.shtm](http://www.fema.gov/government/grant/srl/index.shtm)

## 3. Relevant Laws Impacting FEMA Operations

- A. **National Historic Preservation Act, 16 U.S.C. § 470.**
- B. **Archaeological & Historic Preservation Act, as amended, 16 U.S.C. §§ 469-469c.**
  - Internet Resource: [WWW.ACHP.GOV](http://WWW.ACHP.GOV)
- C. **Endangered Species Act, 16 U.S.C. § 1531 et seq.** Federal agencies must ensure that projects are not likely to harm or destroy federally threatened or endangered species or their critical habitat.
- D. **Fish and Wildlife Coordination Act, 16 U.S.C. § 661 et seq.** Federal agencies must assess the impact that water-related projects will have on fish and wildlife resources and take actions to prevent their loss or damage.
  - Internet Resource: [WWW.FWS.GOV](http://WWW.FWS.GOV)
- E. **Wild and Scenic Rivers Act, 16 U.S.C. § 271 et seq.** Federal agencies cannot provide assistance for the construction of any water resource project that would adversely affect rivers listed on the National Wild and Scenic Rivers System.
- F. **Wilderness Act** - System of National Wilderness areas and policies to manage and protect
  - Internet Resource: [WWW.NPS.GOV](http://WWW.NPS.GOV)
- G. **Farmlands Protection Policy Act, 7 U.S.C. § 4201 et. seq.** and EPA Policy to Protect Environmentally Sensitive Agricultural lands, September 1978. Encourages preservation of prime, unique, and important farmlands.
  - Internet Resource: [WWW.DOA.GOV](http://WWW.DOA.GOV)
- H. **Coastal Zone Management Act, 16 U.S.C. § 1451 et. seq.** Federal agency projects must be consistent with the state coastal zone management programs.
- I. **Coastal Barriers Resources Act, 16 U.S.C. § 3501 et. seq.** Federal agencies are restricted on the type of assistance allowed in designated CBRA or Otherwise Protected Areas (OPAs).
  - Internet Resource: [WWW.NOAA.GOV](http://WWW.NOAA.GOV)

- J. **Clean Air Act, 42 U.S.C. § 7401** Federal agencies must assess the impact that projects will have on air quality and take actions to prevent air quality degradation.
  - Internet Resource: [WWW.EPA.GOV](http://WWW.EPA.GOV)
- K. **Department of Transportation Act, Section 4(f)** – Environmental review of Recreational Area/Parkland/Protected Land
  - Internet Resource: [HTTP://WWW.FRA.DOT.GOV/S/REGS/EIS/NEPA.HTM](http://WWW.FRA.DOT.GOV/S/REGS/EIS/NEPA.HTM)
- L. **Clean Water Act - 33 U.S.C. § 1344**  
**Section 313 – Storm Water Management and Erosion Sediment Control**  
**Section 402 – Sewage Disposal Discharge Permits**  
**Section 404 – Federal agencies must assess the impacts that water-related projects will have on water quality and take actions to prevent water quality degradation.**  
*Notes: (1) "Waters of the U.S." includes waters subject to ebb and flow of tide; wetlands; lakes, rivers, streams, mudflats, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, impoundment, tributaries, territorial seas, and wetlands adjacent to waters previously identified.*  
*(2) Provides the authority with which the USACE regulated the excavation and discharge of fill materials.*
- M. **Rivers and Harbors Act – 33 U.S.C. § 403 Section 10** of the Rivers and Harbors Act of 1889 provides that Federal agencies must assess the impact that projects will have on navigable waters. Act establishes the authority with which USACE regulates the construction of any structure in or over any navigable waters of the United States. Also covers excavation and deposition of materials.
  - Internet Resource: [WWW.USACE.ARMY.MIL](http://WWW.USACE.ARMY.MIL)
- N. **Resource Conservation and Recovery Act, 42 U.S.C. § 6901**  
 Federal agencies must assess the impact that debris, debris removal and hazardous wastes and hazardous waste clean-up projects will have on air and water quality and take actions to prevent degradation.
- O. **Other Environmental**  
**Comprehensive Environmental Response, Compensation and Liability Act**  
 (Superfund) 42 U.S.C. § 9601  
**EPA Underground Storage Tank regulations 42 U.S.C. § 6901**  
**Federal Safe Drinking Water Act 42 U.S.C. § 300f**
  - Internet Resource: [WWW.EPA.GOV](http://WWW.EPA.GOV)

#### 4. Other Laws Impacting FEMA Operations

- A. **Department of Transportation Act, Section 4(f)** – Environmental review of Recreational Area/Parkland/Protected Land
  - Internet Resource: [HTTP://WWW.FRA.DOT.GOV/S/REGS/EIS/NEPA.HTM](http://WWW.FRA.DOT.GOV/S/REGS/EIS/NEPA.HTM)
- B. **Applicable State and Local requirements** such as:
  - Local Flood Plain Management Laws
  - Highlands, Meadowlands, Pinelands National Reserve and Coastal etc. Regulations (NJ)

#### 5. Executive Orders Impacting FEMA Operations

- A. **E.O. 11988 – Floodplain Management**, see 44 C.F.R. Part 9.
- B. **E.O. 11990 – Protection of Wetlands**, see 44 C.F.R. Part 9.
- C. **E.O. 12898 - Environmental Justice in Minority Populations and Low-Income Populations**, 59 Fed. Reg. 7629-7633 (1994).
- D. **E.O. 12699 – Seismic Safety of Federal or Federally Funded New Building Construction**, (1990).
  - Internet Resource: [WWW.ACCESS.GPO.GOV/](http://WWW.ACCESS.GPO.GOV/)

## 6. FEMA Web Sites

- FEMA web site - <http://www.FEMA.gov>
- FEMA Individual Assistance - <http://www.FEMA.gov/r-n-r/inassist>
- FEMA Public Assistance - <http://www.FEMA.gov/r-n-r/pa>
- FEMA Mitigation - <http://www.FEMA.gov/mit>
- FEMA Planning, Training and Exercises - <http://www.FEMA.gov/pte>
- FEMA National Flood Insurance Program - <http://www.FEMA.gov/nfip>

## 7. Other Agency & Association Web Sites (with Mitigation/Recovery Programs)

- Small Business Administration (SBA) - <http://www.sba.gov>
- U.S. Geological Survey - <http://www.usgs.gov/themes/hazard.html>
- U.S. Environmental Protection Agency - <http://www.epa.gov>
- U.S. Department of Housing and Urban Development - <http://www.hud.gov>
- U.S. Department of Agriculture - <http://www.usda.gov>
- USDA Natural Resource Conservation Service (NRCS) - <http://nrcs.usda.gov>
- Department of Defense, US Army Corps of Engineers (USACE) - <http://www.usace.army.mil>
- National Archives & Records Administration-CFR - <http://www.access.gpo.gov/nara/cfr/index.html>
- American Society of Engineers - <http://www.asce.org>
- Applied Technology Council - <http://www.atcouncil.org>
- Association of Contingency Planners - <http://www.acp-international.com/index.html>
- Association of Engineering Geologists – <http://geoweb.tamu.edu/aeg>
- International City/County Management Association - <http://www.icma.org>
- National Association of Home Builders - <http://www.nahb.com>
- National Institute of Building Sciences - <http://www.nibs.org>
- American Planning Association - <http://www.planning.org>
- American Public Works Association - <http://www.pubworks.org>

## 8. Flood Web Sites

- FEMA web site - <http://www.FEMA.gov>
- The Natural Hazards Center - <http://www.colorado.edu/hazards>
- FEMA learning resource center - <http://www.lrc.fema.gov>
- U.S. Geological Survey - <http://www.usgs.gov/themes/hazard.html>
- National Oceanic and Atmospheric Administration.- <http://www.noaa.gov>
- Floodplain Management Association - <http://www.floodplain.org>
- Association of State Floodplain Managers - <http://www.floods.org>
- Northwest FloodPlain Managers Association – <http://www.wolfnet.com/~norfma>

## 9. Earthquake Web Sites

- FEMA web site - <http://www.fema.gov>
- National Earthquake Information Center, USGS, Golden, CO - <http://www.neic.cr.usgs.gov>
- Central U.S. Earthquake Consortium - <http://qandalf.ceri.memphis.edu/~cusec/index.html>
- USGS, Menlo Park, CA - <http://www.quake.wr.usgs.gov>
- Humboldt State Earthquake Information - <http://www.glinda.cnrs.humboldt.edu>
- Building Seismic Safety Council - <http://www.nibs.org/bssc1.htm>
- Earthquake Engineering Research Center, University of CA at Berkeley - <http://www.eerc.berkeley.edu>
- Earthquake Engineering Research Institute - <http://www.eeri.org>
- Center for Engineering Earthquake Research – <http://mceer.buffalo.edu/default.asp>

## 10. Landslide Web Sites

- FEMA mitigation - <http://www.fema.gov/mit>
- The International Landslide Research Group - <http://ilrg.gndc.pg.nr.it>
- U.S. Geological Survey - <http://www.usgs.gov/themes/hazard.html>

## 11. Wind Web Sites

- American Association of Wind Engineering - <http://www.civil.buffalo.edu/wind/windneeds.html>
- Wind Engineering Research Laboratory – <http://www.ce.ttu.edu/wind/main.html>

## 12. Tsunami Web Sites

- National Tsunami Hazard Mitigation Program – <http://www.pmel.noaa.gov/tsunami-hazard>

## 13. Volcano Web Sites

- Cascades Volcano Observatory - <http://vulcan.wr.usgs.gov>
- USGS Volcano web site - <http://quake.wr.usgs.gov>
- Alaska Volcano Observatory - <http://www.avo.alaska.edu>

## 14. Wildfire Web Sites

- Firewise web site - <http://www.firewies.org/pubs/online.html>
- U.S. Forest Service - <http://www.fs.fed.us/land>
- National Interagency Fire Center, Boise – <http://www.neotecinc.com/wildfire>
- FireNet Information Network – <http://online.anu.edu.au/Forestry/fire/firenet.html>
- NIST-Building and Fire Research Laboratory - <http://www.bfrl.nist.gov>
- Wildland Firefighter Magazine - <http://www.wildlandfirefighter.com>

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### For more information Contact:

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# Hazard Mitigation Assistance (HMA) Decision Matrix

**Annual FEMA funding programs at a glance:**

## CRITERIA APPLICABLE TO ALL PROJECT TYPES

(✓ indicates that project would be eligible under the specific program)

Programs	PDM	FMA	RFC	SRL
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Applicant and Subapplicant Eligibility				
<b>Applicants:</b> State emergency management agencies	✓	✓	✓	✓
<b>Subapplicants:</b> State agencies, federally recognized Indian Tribal governments, and local communities	✓	✓	✓	✓
<b>Subapplicants:</b> State-recognized Indian Tribals, authorized Indian Tribal organizations, and Alaska Native Villages	✓	✓	✓	✓
<b>Subapplicants:</b> Private Nonprofit Organizations				

Funding Availability				
The applicant/subapplicant can provide the 25 percent non-Federal share	✓	✓		✓
The Subapplicant meets the “small and impoverished community requirements” and can provide at least 10 percent of the non-Federal share.	✓			
The Applicant has a strategy to reduce repetitive loss properties and can provide 10 percent or more of the non-Federal share.				✓
The Applicant and the subapplicant cannot provide the non-Federal share and can demonstrate reduced capacity. 100 percent funding is available.			✓	

Cost Related Issues				
Project cost exceeds \$3 million			✓	✓
The Federal share could increase due to project cost overruns,		✓		✓
Management costs are available for the Applicant/subapplicant	✓	✓	✓	✓
The Applicant could use the cost under-run for another subapplication to fund the cost overrun of this application (with prior approval).		✓		✓
Applicants may request a change in the Scope of Work after the project is awarded.		✓	✓	✓

<b>Programs</b>	<b>PDM</b>	<b>FMA</b>	<b>RFC</b>	<b>SRL</b>
<b>Feasibility and Effectiveness Requirements</b>				
Benefit-Cost Ratio of 1.0 or greater is required	✓	✓	✓	✓
Pilot Alternative BCA allowed for properties that are Eligible Insured Repetitive Loss Properties	✓	✓	✓	✓
Environmental/Historic Preservation clearance required	✓	✓	✓	✓
<b>NFIP Requirements</b>				
The sub-applicant participates in the NFIP and has not been suspended or withdrawn	✓	✓	✓	✓
<b>Acquisition/Relocation Projects</b>				
The property must be insured by NFIP at the time of application		✓	✓	✓
The property must have one or more NFIP claims to be eligible			✓	
Must be a residential property that has had four or more NFIP claim payments (building and contents) exceeding \$20,000.				✓
Must be a residential property that has had two or more NFIP claim payments (building payments only) exceeding the market value of the building.				✓
The property to be acquired is a residential property.	✓	✓	✓	✓
The property to be acquired is a non-residential property.	✓	✓	✓	✓
Vacant land acquired after relocating structure(s) will be restricted in perpetuity to open space uses.	✓	✓	✓	✓

PDM – Pre Disaster Mitigation  
FMA – Flood Mitigation Assistance  
RFC – Repetitive Flood Claim  
SRL – Severe Repetitive Loss

Funding under the Hazard Mitigation Grant Program is made available after a Presidentially declared disaster.

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**For more information Contact:** [New Jersey Office of Emergency Management, Division of State Police](#)  
P. O. Box 7068, West Trenton, NJ 08628-0068

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# Procedures

## Submitting Local Hazard Mitigation Plans for NJOEM Review Following the 2008 Local Multi-Hazard Mitigation Planning Guidance

FEMA has set new standards for their review of Local All-Hazards Mitigation Plans. They become effective for plans approved or to be approved after October 2012 – that means that plans in process now should be developed according to the new requirements. The procedures outlined here follow the directions in the July 2008 Local Multi-Hazard Mitigation Planning Guide and Tool. The full guidance can be found on the FEMA website.

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These guidelines provide a standard review process that ensures plan submissions are correct, complete, and ready for review by both the NJOEM and FEMA. Most of the elements have been previously shared with plan developers. Following these procedures will make the plan review process occur in the most **understandable**, efficient and effective manner for all organizations concerned.

**Summary of New Items:** The Local Multi-Hazard Mitigation Planning Guide and the Local Plan Review Tool request more detailed information on risk based strategies

### Standard Procedures for Submission of an Multi-Hazard Mitigation Plan

1. **Submission under Cover Letter** – *Be clear as to what you are sending:* Plans should be transmitted to NJOEM under an official cover letter. If appropriate, identify any FEMA planning grants with the FEMA funding source (HMGP, PDM, or FMA) and the appropriate Grant or Disaster Number. The cover letter should be directed to the State Hazard Mitigation Officer. Chapters within the Plan should be numbered so that future revisions and amendments can be inserted without disrupting the page order of the Plan as a whole.
2. **Local Submissions of Plans** - *The approval process calls for the review of new and revised plans by NJOEM before forwarding them to FEMA Region II.* Local plans must be submitted first to the State for its review. FEMA Region II will not review **new or revised** local plans submitted directly to it by local jurisdictions.

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3. **Optional** - If agreed to, NJOEM will review an initial submission as “exploratory”. No scoring will be made and items will be reviewed with items noted for DISCUSSION. Local responses to NJOEM in the resubmission will determine if further REVISIONS are necessary.

4. **Completed Tool Needed for All Submittals – The Tool is the score card that assures compliance with all FEMA requirements:** The local jurisdiction must submit a plan to NJOEM for review with a completed Tool. This applies to both first submittals and all revisions. The completion of a Tool with a satisfactory score for each element demonstrates that the locality(s) has reviewed and concurs that the plan meets the Interim Final Rule on Mitigation Planning (44 CFR Part 201.6). It is acceptable to submit plans and Tools when the Local Adoption requirement is marked “Not Met”, in accordance with #7 below.

- a. **Plan Location Page Numbers on Crosswalks – Identification of where information can be found makes for an easier and faster review:** Specific page(s) for the location in the plan should be used. The lack of specific information in the “Location in the Plan” field does not meet the intent of the crosswalk.
- b. **Consistency:** The basic crosswalk is printed in **black**.
  - NJOEM review comments will be entered in **blue**.
  - Local jurisdiction responses are **highlighted in yellow** in the Plan and on the Tool.
- c. **State Comments on Tool:** NJOEM remarks in the “Reviewer’s Comment” field, for each element on the crosswalk summarize the initial review. State comments provide feedback to local communities and the plan’s author.
  1. **Required Revision** means that the plan must be revised to cover the issues noted.
  2. **Recommended Revision** means that additional information would make for a better plan, now or when updated.
- d. **Local Response to NJOEM Comments:** Responses should be entered as **yellow highlighted comments** following each **NJOEM Required or NJOEM Recommended Revision**.

5. **Hard Copy and Electronic Copy – What to send to NJOEM:**

- a. The submission of one printed copy of both plan and crosswalk and electronic disk copy.
- b. The crosswalk must be submitted on a CD in MS Word.
- c. When re-submitting a revised plan and Tool, follow directions in item 4 above.
- d. NJOEM requires that local jurisdictions provide two copies of the “final” plan so that one copy can remain at the State and the other is submitted to FEMA. This will be beneficial if revisions are required; technical assistance is requested and project funding requests are processed.
- e. If the initial plan is acceptable and can be forwarded to FEMA, then a second copy of the Plan will be requested

6. **Acknowledgement of Plan Receipt:** NJOEM will acknowledge the receipt of a submitted plan packages with an e-mail noting whether it was partial or complete and noting the date it was received in the Region.

7. **Plan Revisions:** The local jurisdiction can submit revised plans for NJOEM review by Chapter, as long as the page numbering remains consistent. All required revisions should be submitted as a **complete “chapter” package**. Changes from the previous plan submittal should be **highlighted** in the plan and on the Tool to ensure that all revisions are found and considered in the next review. Submission of a “final” plan to FEMA Region II will include a revised Tool to demonstrate the State’s concurrence.

8. **Submission of Plans and Adoption Resolutions:** Local Jurisdictions **should not** adopt the plan before final approval. Only when FEMA has determined that the Plan satisfies all requirements, it will provide the State with a Crosswalk Review indicating “Approval Pending Adoption.” The State will then request that the plan be adopted by participating jurisdictions and their adoption resolutions will be submitted through NJOEM to FEMA Region II for final approval.



# Sample Scoring Sheet For Mitigation Project Priority

Annual FEMA funding programs will be scored and ranked for funding using an impartial scoring *similar* to the following:

General Application Information	Points	Score	
Is this project <i>specifically identified</i> in an All Hazards Plan?	50		
<b>OR</b> – Is this a <i>generic</i> type of project identified in the applicants plan?	30		
Was the local plan FEMA <i>prior approved</i> to the declaration (for HMGP)?	10		
Is the project <i>in the declared disaster</i> area (for HMGP)?	20		
Is the project in a <i>CRS</i> community?	20		<b>Unit Total</b>

Environmental	Points	Score	
Is the project <i>eligible</i> for a Categorical Exclusion (CATEX)?	5		
Is the project an <i>All Hazards Plan or Plan Update</i> (no Benefit/Cost required)?	5		
Is the project identified as a “set aside fundable” project (no Benefit/Cost required)?	5		
Has a “ <i>positive</i> ” Benefit/Cost study been provided	10		
Has a “ <i>weak</i> ” Benefit/Cost study been provided (no back up-no documentation)?	- 5		
Is a Benefit/Cost <i>analysis</i> required but not provided?	- 10		
Has an <i>engineering</i> study been provided – score on a scale of 1-20?	20		<b>Unit Total</b>

State Strategy	Points	Score	
Is the structure on the <i>Severe Repetitive Loss</i> list?	50		
Is the structure on the <i>Repetitive Loss</i> list?	30		
Is the structure <i>within a floodplain</i> ?	5		
Is the project an <i>acquisition or elevation</i> ?	10		
Is the project <i>flood water management</i> ?	7		
Is the project a <i>retrofit</i> project?	5		
Is the project a <i>warning and information</i> systems project?	5		
Does the project have <i>outstanding or unique</i> features	10		<b>Unit Total</b>

Total Points Scored	

**For more information Contact:** New Jersey Office of Emergency Management, Division of State Police  
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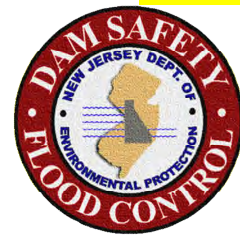
Email: [NJMitigation@gw.njsp.org](mailto:NJMitigation@gw.njsp.org)

## Scoring Rationale

General Application Information	
Is this project <b>specifically identified</b> in an All Hazards Plan?	<b>All or nothing points</b> awarded given to pre-planning efforts.
<b>OR</b> – Is this a <b>generic</b> type of project identified in the applicants plan?	Lesser point value given to general plan projects given at <b>reviewers discretion</b>
Was the local plan FEMA <b>prior approved</b> to the declaration (for HMGP)?	<b>All or nothing points</b> awarded given to pre-planning efforts.
Is the project <b>in the declared disaster</b> area (for HMGP)?	<b>All or nothing points</b> awarded given to projects in declared areas.
Is the project in a <b>CRS</b> community?	<b>All or nothing points</b> awarded given for greater floodplain management efforts.

Environmental	
Is the project <b>eligible</b> for a Categorical Exclusion (CATEX)?	<b>All or nothing points</b> awarded given to “ready to go” projects.
Is the project an All Hazards <b>All Hazards Plan or Plan Update</b> (no Benefit/Cost required)?	<b>All or nothing points</b> awarded to continue the state-wide planning effort.
Is the project identified as a “set aside fundable” project (no Benefit/Cost required)?	<b>All or nothing points</b> awarded to continue the state-wide mitigation effort.
Has a “ <b>positive</b> ” Benefit/Cost study been provided	<b>All or nothing points</b> awarded
Has a “ <b>weak</b> ” Benefit/Cost study been provided (no back up-no documentation)?	<b>Negative points</b> awarded to projects that with limited B/C information on which to base approval. Projects without B/C can not be approved but should be scored.
Is a Benefit/Cost <b>analysis</b> required but not provided?	<b>Negative points</b> awarded to projects that with no B/C information on which to base approval. Projects without B/C can not be approved but should be scored.
Has an <b>engineering</b> study been provided – score on a scale of 1-20?	<b>Discretionary</b> award based on reviewer’s (non-engineer) impression of the study

State Strategy	
Is the structure on the <b>Severe Repetitive Loss</b> list?	<b>All or nothing points</b> based on NFIP listing
Is the structure on the <b>Repetitive Loss</b> list?	<b>All or nothing points</b> based on NFIP listing
Is the structure <b>within a floodplain</b> ?	<b>All or nothing points</b> based on FIRM or D-Firm info
Is the project an acquisition or elevation?	<b>All or nothing points</b>
Is the project <b>flood water management</b> ?	<b>All or nothing points</b>
Is the project a <b>retrofit</b> project?	<b>All or nothing points</b> given to encourage protection of critical facilities.
Is the project a <b>warning and information</b> system?	<b>All or nothing points</b>
Does the project have <b>outstanding or unique</b> features	<b>Discretionary</b> award based on reviewer’s impression of the application as a whole.



# Map Modernization

<b>Why Modernize?</b>	<p>Map Modernization is responding to National Flood Insurance Program (NFIP) requirements and feedback provided by Federal, State, and local Program stakeholders.</p> <ul style="list-style-type: none"> <li>• Flood hazard conditions are dynamic, and many NFIP maps may not reflect recent development and/or natural changes in the environment.</li> <li>• Updated NFIP maps can take advantage of revised data and improved technologies for identifying flood hazards.</li> <li>• Up-to-date maps support a flood insurance program that is more closely aligned with actual risk, encourage wise community-based floodplain management, and improve citizens' flood hazard awareness.</li> <li>• Local communities and various stakeholders desired more timely updates of flood maps and easier access to the flood hazard data used to create the maps.</li> <li>• Map Modernization is a cornerstone for helping community officials and citizens be better prepared for flood-related disasters.</li> </ul>
<b>What's Different?</b>	<p>Flood Map Modernization uses state-of-the-art technology to increase the quality, reliability, and availability of flood hazard maps and data.</p> <ul style="list-style-type: none"> <li>• Advanced engineering streamlines studies/mapping projects and improves results.</li> <li>• Capturing interim data throughout the study/mapping project process enables access to mapping products earlier in the process.</li> <li>• Refined standards result in improved data quality.</li> <li>• Flood maps are delivered in an industry-standard Geographic Information System format, which allows users to view information in a graphical format and add or remove layers of data according to their needs.</li> <li>• Spatial visualization makes it easier to view and analyze the information.</li> <li>• The FEMA Mapping Information Platform (MIP) gives stakeholders improved access to flood hazard data through the Web; flood maps and data may be accessed online via the MIP during the study/mapping project process as data become available.</li> <li>• The MIP promotes data sharing with mapping partners, improves interoperability with existing data sources, and makes flood map updates quicker and cheaper.</li> </ul>
<b>Who Will Make it Happen?</b>	<p>Map Modernization is a collaborative process and a new way of doing business, cutting across all layers of government and other organizations.</p> <ul style="list-style-type: none"> <li>• Federal Emergency Management Agency (FEMA) data are shared with other Federal agencies.</li> <li>• FEMA partnerships with State, regional, and local stakeholders allows Partners to choose their level of involvement in mapping tasks such as collecting, updating, and adopting flood data.</li> <li>• Fostering collaboration with Federal, State, and local partners, Map Modernization will help improve and maintain the quality of the flood hazard data produced for the National Flood Insurance Program.</li> <li>• The FEMA-contracted National Service Provider, known as the Mapping On Demand Team, is assisting FEMA with improving consistency throughout the Nation and streamlining the goals of Map Modernization through innovation and partnerships.</li> <li>• In collaboration with mapping partners and other stakeholders, FEMA has developed a 5-year plan called the Multi-Year Flood Hazard Identification Plan (MHIP) for updating the Nation's flood hazard data.</li> </ul>

**For more information Contact:**

- NJDEP Office of Engineering and Construction, Bureau of Dam Safety and Flood Control, P. O. Box 419, Trenton, NJ 08625  
**David Rosenblatt, Administrator or John H. Moyle, PE, State NFIP Coordinator**  
 Tele: (609) 292-2296; Fax: (609) 984-1908; Web: [www.state.nj.us/dep/floodcontrol](http://www.state.nj.us/dep/floodcontrol)
- New Jersey Office of Emergency Management, Division of State Police, P. O. Box 7068, West Trenton, NJ 08628-0068  
**Lt. Robert Little, State Hazard Mitigation Officer**  
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<b>How will it Help?</b>	<p><b>Map Modernization</b> provides more accurate and up-to-date flood hazard information and enhances community officials' and citizens' decision-making and their ability to manage risks and other issues locally.</p> <ul style="list-style-type: none"> <li>• New data reflecting current flood hazard conditions enables citizens to more reliably assess their flood risk and take appropriate action to mitigate (i.e., reduce their physical and financial vulnerability to flooding).</li> <li>• The more accurate risk information that will result from Map Modernization will help local citizens choose the appropriate amount of flood insurance to purchase.</li> <li>• Map Modernization provides a more comprehensive approach to economic development, mitigation planning, and emergency response.</li> <li>• Communities will be more effective in managing flood risks, land use, water resources, disaster recovery, and other responsibilities.</li> <li>• Communities will be empowered to update maps and data as changes occur.</li> <li>• Goals and outcomes will be aligned among mapping partners.</li> <li>• The Mapping Information Platform supports integration of multi-hazard data and provides a broader view of total risk.</li> </ul>
<b>Who Benefits?</b>	<p>Map Modernization touches a broad array of National Flood Insurance Program stakeholders who will see different benefits, including the following:</p> <ul style="list-style-type: none"> <li>• Community planners and local officials gain an improved understanding of the flood hazards and risks that affect their community.</li> <li>• Builders and developers have detailed information for making decisions on where to build safely and how construction can affect flood hazards.</li> <li>• Insurance agents and companies, real estate agents and companies, and lending institutions have one-stop access to flood map updates and upcoming changes.</li> <li>• Homeowners and business owners are able to make more informed decisions about their current flood risks.</li> </ul>

Status of the NJ NFIP Flood Insurance Map Modernization Studies			
County	Status	Preliminary	Effective
Atlantic	Presently not funded under Map Modernization		
Bergen	Pre-scoping not performed	2004	2005
Burlington	Limited pre-scoping completed	2008	2009
Camden	Limited pre-scoping completed – initial	2008	2009
Cape May	Presently not funded under Map Modernization		
Cumberland	Presently not funded under Map Modernization		
Essex	Pre-scoping not performed	2005	2007
Gloucester	Not currently planned	2008	
Hudson	Limited pre-scoping package completed	2005	2006
Hunterdon	Limited pre-scoping package completed	2007	2009
Mercer	Limited pre-scoping package completed	2008	2009
Middlesex	Limited pre-scoping package completed	2008	2009
Monmouth	Pre-scoping not performed	2008	2009
Morris	Limited pre-scoping package completed	2009	2010
Ocean	Limited pre-scoping package completed - initial	2008	2009
Passaic	Pre-scoping not performed	2006	2007
Salem	Presently not funded under Map Modernization		
Somerset	Pre-scoping not performed	2005	2007
Sussex	Full scoping completed	2008	2009
Union	Pre-scoping not performed	2004	2005
Warren	Full scoping completed	2008	2009

**Pre-scoping** identifies water bodies and inventory of existing flood information.

**Flood Insurance Rate Maps (FIRMs), Digital FIRMs and Flood Insurance Studies (FISes)** are available online at **FEMA's Map Service Center** ([fema.gov](http://fema.gov)), click on Product Catalog at top of page. See tutorial on home page for creating and printing your own "Firmette" of desired section of map with north arrow, scale, panel # (free). Note that on FIRM itself, the FIRM index shows the location of the Map Repository where maps and reports can be viewed.

**Preliminary DFIRM's** are available online at the Regional Management Center (RMC) at [rmc.mapmodteam.com/RMC2/](http://rmc.mapmodteam.com/RMC2/). Although they have not been adopted, these are suitable for planning purposes. Note that the RMC website will be including maps and tables showing availability of Preliminary DFIRMs and FIS reports.

**Q3 Data** (both Digital Flood and Coastal Barrier Resource Areas (CBRA) Data are available online for all of New Jersey (Flood Disk 18, September 1996) at FEMA's Map Service Center under the Product Catalog. If DFIRMs or preliminary maps are not available, then Q3 data are appropriate and suitable for planning purposes.

## Flood Hazard Mapping News

The Federal Emergency Management Agency's (FEMA) Mitigation Directorate maintains and updates the National Flood Insurance Program (NFIP) maps. To keep up with the latest developments in Flood Hazard Mapping, please visit [What's New in Flood Hazard Mapping](#). You can also sign up for e-mail updates using the "Flood Hazard Mapping News e-mail updates" link at the top of this page. For more information you may e-mail or call a Map Specialist in the FEMA Map Assistance Center; toll free, at 1-877-FEMA MAP (1-877-336-2627)

**Paper to Digital Transition:** Beginning on or after October 1, 2009, FEMA will provide a single paper flood map and Flood Insurance Study (FIS) to each mapped community. FEMA will convert all other distribution of maps and FIS reports for digital delivery. FEMA will continue to provide free digital map products and data to Federal, State, Tribal, and local NFIP stakeholders. FEMA announced this change in the Federal Register (PDF, 43KB), Vol. 23, No. 76, issued on October 23, 2008.

### User Groups:

- Engineers, Surveyors, and Architects - Products, services, and publications available to engineers, surveyors, and architects.
- Floodplain Managers. - Resources available to floodplain managers including, guidance documents, contacts, and training resources.
- Homeowners - Locate and obtain copies of flood maps, understand how to read them, and request a map change believed to be warranted.
- Insurance Professionals and Lenders - Sources of information available specifically for insurance professionals and lenders involved with the NFIP.

**Flood Map Modernization (Map Mod):** Through Map Mod, FEMA is transforming the Nation's flood maps into more reliable, easier-to-use, and readily available maps. The Multi-Year Flood Hazard Identification Plan (MHIP) describes the strategy, schedule, and budget developed by FEMA for producing flood hazard data and maps to administer the NFIP. It is a living document that is updated annually through a collaborative process to engage stakeholders. As part of its commitment to improve the Nation's flood hazard maps and in response to stakeholder feedback, FEMA performed a comprehensive review of Map Mod. This review is referred to as the Mid-Course Adjustment. As a result of the Mid-Course Adjustment, FEMA prioritized funding based on a goal of mapping 90 percent of the Nation's highest-risk areas.

**Risk MAP (Mapping, Assessment, and Planning) Strategy:** Building upon the successes of Map Mod, FEMA is developing a vision for flood hazard mapping efforts that will start in Fiscal Year 2009. The Risk MAP (Mapping, Assessment, and Planning) Strategy will enable FEMA to improve, maintain, and expand the flood hazard identification while leveraging more benefits and community action from updated NFIP maps.

**Cooperating Technical Partners (CTP) :** The CTP Program is an innovative approach to creating partnerships between FEMA and participating NFIP communities, regional agencies, and State agencies that have the interest and capability to become more active participants in the FEMA Flood Hazard Mapping program.

**Status of Map Changes:** Floodplain managers, engineers, community officials, citizens who are actively involved in updating flood hazard data and maps, and other interested stakeholders may obtain information on ongoing map change activities, priority map changes, Letters of Final Determination, and Base Flood Elevation notices.

**Forms, Documents, and Software:** FEMA's Mitigation Directorate offers various application forms, documents, and software to assist the public. Online Tutorials: FEMA has developed several multimedia tutorials to provide in-depth training on different facets of the NFIP and to support FEMA's public education and outreach efforts as part of Map Mod.

**Frequently Asked Questions:** Answers to the most Frequently Asked Questions are provided for the following user groups: Homeowners, Engineers, Surveyors, and Architects, Insurance Professionals and Lenders, and Floodplain Managers.

**Website visitors experiencing accessibility problems are encouraged to send email to [webmaster@fema.gov](mailto:webmaster@fema.gov).**

**DFIRM Database Requirements:** *Information about the spatial database used to store the Geographic Information System (GIS)-based attributes of the DFIRMs is provided in Appendix L of the Guidelines. Appendix L includes information on database design considerations, technical content, and metadata requirements. Appendix L also describes the tables and fields contained in the DFIRM Database. The DFIRM Database is designed to facilitate access to, as well as collection, storage, and processing of, data developed by FEMA for the NFIP. The DFIRM Database will enable FEMA, FEMA contractors, and FEMA mapping partners to share data necessary for hydrologic and hydraulic (H&H) modeling and DFIRM production. In addition, the DFIRM Database will enable maps to be rapidly updated and revised in the future.*

The use of GIS as a component of the DFIRM Database allows the mapping and engineering data elements to be linked to physical features, georeferenced, and overlaid as needed. This, in turn, allows the database to support a wide variety of existing and visionary FEMA engineering and mapping products, such as automated H&H modeling and mapping; Web-based publishing of digital map products; and direct links between base maps, work maps, H&H modeling, and mapping elements.

The DFIRM Database content will vary based on the data available and/or developed for a particular flood study/mapping project. All DFIRMs will contain certain standard features:

- A base map that is distributed with the digital files;

- The features shown on a printed Flood Insurance Rate Map (e.g., floodplain boundaries, Base Flood Elevations, regulatory floodways, cross sections, bench marks);
- Electronic Flood Insurance Study (FIS) report text, tables, and Flood Profiles; and
- [Federal Geographic Data Committee](#)-compliant metadata.

In addition to the elements listed above, some DFIRM Databases may contain pertinent backup engineering data needed by FEMA, FEMA contractors, and FEMA mapping partners for FEMA-contracted flood studies/mapping projects, community-initiated map revisions, or map maintenance activities. The DFIRM Database includes information needed for core NFIP functions such as insurance rating and compliance monitoring. The DFIRM Database includes sufficient data to allow users to reproduce the Flood Profiles and water-surface elevations. Additionally, the DFIRM Database stores original products and intermediate products of high value and/or wide applicability. The DFIRM Database does not include all intermediate data developed in the course of conducting the flood study/mapping project. Some of the DFIRM Database features may be stored in GIS mapping layers or related tables, but not shown on the paper DFIRM product.

The DFIRM Database specifications contain the following additional defined spatial and non-spatial data items and tables:

- Subbasins with links to discharges, storm data, and regression equations;
- Gages, including rain gages, river gages, and coastal gages;
- Nodes with links to node discharge data and zipped hydrologic models;
- Profile base lines;
- Overbank flow paths;
- Additional cross section data, including links to a frequency (rating) table and the zipped hydraulic models;
- Additional coastal transect data, including links to the zipped coastal models;
- Primary frontal dunes;
- Modeled coastal shorelines;
- Outline of the studied area(s) with links to FEMA case information;
- Photographs, sketches, and similar documents linked to spatial features;
- Documentation for variable data that may be developed for the flood study/mapping project (e.g., topographic data, land use, soils, roughness);
- Zipped files containing general information on methodology (e.g., Technical Support Data Notebook defined in Appendix M of the *Guidelines*); and
- Zipped FIS report components (e.g., FIS text, Flood Profiles, Floodway Data Tables).

#### **Sample DFIRMs**

Three full-size [sample DFIRMs](#) are accessible through the FEMA Library. They include a DFIRM Map Index and two different versions of a prototype DFIRM panel. The sample DFIRM panel is presented as a black-and-white DFIRM with a vector base map and a color DFIRM with a Digital Orthophoto Quadrangle (DOQ) base map.

This prototype of Flood County, USA, is a hypothetical example of a DFIRM product. The prototype was prepared for a single FIRM panel. Normally, the DFIRM will include all the digital data for an entire community or county.

This group of single panel samples, suitable for plotting, consists of several DFIRMs. A sample Map Index, a sample black-and-white DFIRM, and a sample color DFIRM. The black-and-white DFIRM was produced using a vector base map. The color DFIRM was produced using a DOQ as the base map, and is available in 2 resolutions, 300 and 600 DPI. All community names and numbers, as well as the map numbers, are hypothetical.

## **Digital Q3 Data**

The digital Q3 Flood Data product was an early digital mapping product developed by FEMA. FEMA created the digital Q3 Flood Data products by scanning (producing raster or grid data files) paper versions of effective FIRMs and vectorizing (converting to lines and areas) select data features into a countywide format.

The digital Q3 Flood Data product was designed to serve FEMA's needs for disaster response activities, NFIP activities, risk assessment, and floodplain management. The product was designed to support planning activities, some Community Rating System (CRS) activities, insurance marketing, mortgage portfolio review, FEMA's Response and Recovery activities, and to assist in floodplain management activities at a local level. Base Flood Elevations are not included, so its use is limited. These products are being replaced on a county-by-county basis by DFIRMs and DFIRM Databases.

Additional information on the Q3 Flood Data product, including a series of Frequently Asked Questions, sample Q3 Flood Data products for 10 counties, a User Guide, and product specifications, is accessible through the [Product Information](#) page on the FEMA Map Service Center Website.

**What is Digital Q3 Data?** Q3 Flood Data is a digital representation of certain features of FEMA's Flood Insurance Rate Maps, intended for use with desktop mapping and Geographic Information Systems technology. Digital Q3 Flood Data has been developed by scanning the existing FIRM hardcopy and [Digital Q3 Data FAQs](#) vectorizing a thematic overlay of flood risks. The vector Q3 Flood Data files contain only certain features from the existing FIRM hardcopy.

#### **How can I View Digital Q3 Data? The data is available via the:**

- [ESRI Hazard Mapping Website](#) - allows you to enter a location and select from several hazard types.
- [Map Service Center](#) - provides Q3 data in CD-ROM format in addition to providing Coastal Barrier Resource Area (CBRA) Q3 Data

You will need Geographic Information System (GIS) software to view the data. The data is available in the following formats:

- Digital Line Graph (DLG)
- ARC/INFO
- MapInfo ®



## NJOEM PLANNING TOOL INFORMATION

### HOW FEDERAL REGULATIONS ARE INCORPORATED INTO THE PLAN THROUGH THE MITIGATION PLAN REVIEW TOOL

- Review of the Local plan by NJ Office of Emergency Management and FEMA Region II will be conducted before adoption.
- Each legislative requirement includes separate numbered elements.
- All elements of the requirement must be rated “Satisfactory” in order for the requirement to be fulfilled and receive a score of “Satisfactory.”
- Alpha sub-elements of each requirement are listed below.
- The plan cannot be approved if the plan has not been formally adopted.

#### *Element A: The Planning Process*

##### **A.1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction?**

A.1.a Documentation of how the plan was prepared **must** include the schedule or timeframe and activities that made up the plan’s development as well as who was involved. Documentation typically is met with a narrative description, but may also include, for example, other documentation such as copies of meeting minutes, sign-in sheets, or newspaper articles.

A.1.b The plan **must** list the jurisdiction(s) participating in the plan that seek approval.

A.1.c The plan **must** identify who represented each jurisdiction. The Plan **must** provide, at a minimum, the jurisdiction represented and the person’s position or title and agency within the jurisdiction.

A.1.d For each jurisdiction seeking plan approval, the plan **must** document how they were involved in the planning process. For example, the plan may document meetings attended, data provided, or stakeholder and public involvement activities offered. Jurisdictions that adopt the plan without documenting how they participated in the planning process will not be approved.

A.1.e Plan updates **must** include documentation of the current planning process undertaken to update the plan.

##### **A.2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process?**

A.2.a The plan **must** identify all stakeholders involved or given an opportunity to be involved in the planning process. At a minimum, stakeholders **must** include:

1. Local and regional agencies involved in hazard mitigation activities;
2. Agencies that have the authority to regulate development; and
3. Neighboring communities.

A.2.b The Plan **must** provide the agency or organization represented and the person’s position or title within the agency.

A.2.c The plan **must** identify how the stakeholders were invited to participate in the process.

##### **A.3. Does the Plan document how the public was involved in the planning process during the drafting stage?**

A.3.a The plan **must** document how the public was given the opportunity to be involved in the planning process and how their feedback was incorporated into the plan. Examples include, but are not limited to, sign-in sheets from open meetings, interactive websites with drafts for public review and comment, questionnaires or surveys, or booths at popular community events.



A.3.b. The opportunity for participation **must** occur during the plan development, which is prior to the comment period on the final plan and prior to the plan approval /adoption.

**A.4. Does the Plan document the review and incorporation of existing plans, studies, reports, and technical information?**

A.4.a. The plan **must** document *what* existing plans, studies, reports, and technical information were reviewed. Examples of the types of existing sources reviewed include, but are not limited to, the state hazard mitigation plan, local comprehensive plans, hazard specific reports, and flood insurance studies.

A.4.b. The plan **must** document *how* relevant information was incorporated into the mitigation plan.

**A.5. Is there discussion on how the community(ies) will continue public participation in the plan maintenance process?**

A.5.a. The plan **must** describe how the jurisdiction(s) will continue to seek public participation after the plan has been approved and during the plan's implementation, monitoring and evaluation.

**A.6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)?**

A.6.a. The plan must identify how, when, and by whom the plan will be monitored.

A.6.b. The plan must identify how, when, and by whom the plan will be evaluated.

A.6.c. The plan must identify how, when, and by whom the plan will be updated.

A.6.d. The plan must include the title of the individual or name of the department/ agency responsible for leading each of these efforts.

## Element B: Hazard Identification and Risk Assessment

**B.1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction?**

B.1.a. The plan **must** include a description of the natural hazards that can affect the jurisdiction(s) in the planning area.

B.1.b. The plan **must** provide the rationale for the omission of any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area.

B.1.c. The description, or profile, **must** include information on location, extent, previous occurrences, and future probability for each hazard. Previous occurrences and future probability are addressed in sub-element B2.

**B.2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction?**

B.2.a. The plan **must** include the history of previous hazard events for each of the identified hazards.

B.2.b. The plan **must** include the probability of future events for each identified hazard.

B.2.c. Plan updates **must** include hazard events that have occurred since the last plan was developed.

**B.3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction?**

B.3.a. For each participating jurisdiction, the plan **must** describe the potential impacts of each of the identified hazards on the community.

B.3.b. The plan **must** provide an overall summary of each jurisdiction's vulnerability to the identified hazards. The overall summary of vulnerability identifies structures, systems, populations or other community assets as defined by the community that are susceptible to damage and loss from hazard events. A plan will meet this sub-element by addressing the requirements described in §201.6(c)(2)(ii)(A-C).

**B.4. Does the Plan address NFIP insured structures within each jurisdiction that have been repetitively damaged by floods? 44 CFR 201.6(c)(2)(ii)**

B.4.a. The plan **must** describe the types (residential, commercial, institutional, etc.) and estimate the numbers of repetitive loss properties located in identified flood hazard areas.

## Element C Mitigation Strategy

### **C.1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs?**

C.1.a. The plan **must** describe each jurisdiction's existing authorities, policies, programs and resources available to accomplish hazard mitigation.

### **C.2. Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate?**

C.2.a. The plan **must** describe each jurisdiction's participation in the NFIP and describe their floodplain management program for continued compliance. Simply stating "The community will continue to comply with NFIP," will not meet this requirement. The description could include, but is not limited to:

- Adoption and enforcement of floodplain management requirements, including regulating new construction in Special Flood Hazard Areas (SFHAs);
- Floodplain identification and mapping, including any local requests for map updates; or
- Description of community assistance and monitoring activities.

### **C.3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards?**

C.3.a. The plan **must** include general hazard mitigation goals that represent what the jurisdiction(s) seeks to accomplish through mitigation plan implementation.

C.3.b. The goals **must** be consistent with the hazards identified in the plan.

### **C.4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure?**

C.4.a. The plan **must** include a mitigation strategy that 1) analyzes actions and/or projects that the jurisdiction considered to reduce the impacts of hazards identified in the risk assessment, and 2) identifies the actions and/or projects that the jurisdiction intends to implement.

C.4.b. Each jurisdiction participating in the plan **must** have mitigation actions specific to that jurisdiction that are based on the community's risk and vulnerabilities, as well as community priorities.

C.4.c. The action plan **must** reduce risk to existing buildings and infrastructure as well as limit any risk to new development and redevelopment. ***With emphasis on new and existing building and infrastructure*** means that the action plan includes a consideration of actions that address the built environment.

### **C.5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction?**

C.5.a. The plan **must** describe the criteria used for prioritizing implementation of the actions.

C.5.b. The plan **must** demonstrate when prioritizing hazard mitigation actions that the local jurisdictions considered the benefits that would result from the hazard mitigation actions versus the cost of those actions. The requirement is met as long as the economic considerations are summarized in the plan as part of the community's analysis. A complete benefit-cost analysis is not required. Qualitative benefits (*for example*, quality of life, natural and beneficial values, or other "benefits") can also be included in how actions will be prioritized.

C.5.c. The plan **must** identify the position, office, department, or agency responsible for implementing and administering the action (for each jurisdiction), and identify potential funding sources and expected timeframes for completion.

**C.6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate?**

C.6.a. The plan **must** describe the community’s process to integrate the data, information, and hazard mitigation goals and actions into other planning mechanisms.

C.6.b. The plan **must** identify the local planning mechanisms where hazard mitigation information and/or actions may be incorporated.

C.6.c. A multi-jurisdictional plan **must** describe each participating jurisdiction’s individual process for integrating hazard mitigation actions applicable to their community into other planning mechanisms.

C.6.d. The updated plan **must** explain how the jurisdiction(s) incorporated the mitigation plan, when appropriate, into other planning mechanisms as a demonstration of progress in local hazard mitigation efforts.

.6.e. The updated plan **must** continue to describe how the mitigation strategy, including the goals and hazard mitigation actions will be incorporated into other planning mechanisms.

**Element D Plan Review. Evaluation, and Implementation**

**D.1. Was the plan revised to reflect changes in development?**

D.1.a. The plan **must** describe changes in development that have occurred in hazard prone areas and increased or decreased the vulnerability of each jurisdiction since the last plan was approved. If no changes in development impacted the jurisdiction’s overall vulnerability, plan updates may validate the information in the previously approved plan.

**D.2. Was the plan revised to reflect progress in local mitigation efforts?**

D.2.a. The plan **must** describe the status of hazard mitigation actions in the previous plan by identifying those that have been completed or not completed. For actions that have not been completed, the plan **must** either describe whether the action is no longer relevant or be included as part of the updated action plan.

**D.3. Was the plan revised to reflect changes in priorities?**

D.3.a. The plan **must** describe if and how any priorities changed since the plan was previously approved.

**Element E Plan Adoption**

**E.1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval?**

E.1.a. The plan **must** include documentation of plan adoption, usually a resolution by the governing body or other authority.

**E.2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption?**

E.2.a. Each jurisdiction that is included in the plan **must** have its governing body adopt the plan prior to FEMA approval, even when a regional agency has the authority to prepare such plans.

Element F Additional State Requirements	
Element, Citation and Explanations	Requirements

**For more information Contact:** New Jersey Office of Emergency Management, Division of State Police  
P. O. Box 7068, West Trenton, NJ 08628-0068

**Lt. Robert Little, State Hazard Mitigation Officer**

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Email: [NJMitigation@gw.njsp.org](mailto:NJMitigation@gw.njsp.org)



# Increased Cost of Compliance

*If your home or business is damaged by a flood, you may be required to meet certain building requirements in your community to reduce future flood damage before you repair or rebuild. To help you cover the costs of meeting those requirements, the National Flood Insurance Program (NFIP) includes Increased Cost of Compliance (ICC) coverage for all new and renewed Standard Flood Insurance Policies. ICC coverage is one of several resources for flood insurance policyholders that need additional help rebuilding after a flood. It provides up to \$30,000 to help cover the cost of mitigation measures that will reduce flood risk. ICC coverage is part of most standard flood insurance policies available under FEMA's National Flood Insurance Program (NFIP).*

## REDUCING FUTURE DAMAGE

When a building covered by a standard flood insurance policy suffers a flood loss and is declared to be “substantially damaged” or “repetitively damaged,” ICC will help pay up to \$30,000 to bring the building into compliance with state or community floodplain management laws or ordinances. Usually this means elevating or relocating the building so that it is at or above the Base Flood Elevation (BFE). Non-residential structures may also be flood-proofed. ICC coverage applies only to buildings, and covers only the cost of the compliance measures undertaken. It is filed separately from the normal flood insurance claim.

## DETERMINING WHO IS ELIGIBLE

In addition to being insured under the National Flood Insurance Program, the building must meet one of two conditions to be eligible to ICC coverage: it must have been either 1) determined by a local official to be “substantially damaged”; or 2) meet the criteria of a repetitive loss structure.

- **“Substantial damage”** is the determination by the community that damage due to flood has equaled or exceeded 50 percent of the value of the building, and when repaired, it must meet local floodplain management ordinances. If the total damage from flooding is less than 50 percent of the market value of the building, ICC coverage is not available.
- **“Repetitive loss”** means that a building covered by flood insurance incurred flood-related damage two times over a period of 10 years, and that the cost of the repairs was, on the average, at least 25 percent of the market value of the building before the damage occurred each time. This applies only if the community has adopted a repetitive loss provision in the local floodplain management ordinance. A flood insurance claim must have been paid in both cases. The combined damage total must be 50 percent of the pre-damage value of the building, but it need not be evenly distributed. So, if the damage was 35 percent of the value of the building in the first event and 15 percent of the value of the building in the second event, the policyholder would qualify for ICC coverage.

## MEETING COMPLIANCE STANDARDS

ICC coverage can help pay for four different types of mitigation activities to bring a building into compliance with the community's floodplain management regulations.

1. **Elevation** is the most common means of reducing a building's flood risk. The process consists of raising the building to or above the Base Flood Elevation. While the National Flood Insurance Program policy requires raising the lowest floor of the building only to the Base Flood Elevation, some states and communities enforce a “freeboard” requirement, which mandates that the building be raised above that elevation to meet the community's flood protection level.
2. **Flood-proofing** applies only to non-residential buildings. For a building to be certified as floodproof it must be watertight below the Base Flood Elevation – the walls must be substantially impermeable to water and designed to resist the stresses imposed by floods. Floodproofing techniques include installation of watertight shields for doors and windows, drainage collection systems, sump pumps, and check valves; reinforcement of walls to withstand floodwater pressures; use of sealants to reduce seepage through and around walls; and anchoring the building to resist flotation, collapse and lateral movement.
3. **Relocation** involves moving the entire building to another location on the same lot, or to another lot, usually outside the floodplain. Relocation can offer the greatest protection from future flooding, but if the new location is still within the Special Flood Hazard Area the building must still comply with all applicable floodplain management regulations.
4. **Demolition** may be necessary in cases where damage is too severe to warrant elevation, floodproofing or relocation; or the building is in such a poor condition that it is not worth the investment to undertake any combination of the above activities. All applicable permits must be obtained before demolishing the building. The property may be redeveloped after demolition is complete, subject to all applicable federal, state and community laws and requirements.

## **USING ICC IN CONCERT WITH FEMA MITIGATION GRANTS**

In some cases, individual policyholders can take advantage of federal grant money to supplement the cost of mitigation activities. Policyholders can assign their ICC benefits to their community and enable the community to file a single claim on behalf of a community mitigation project. FEMA will count the ICC claim monies as non-federal matching funds when applying for mitigation grants, because ICC coverage is a direct contract between the policyholder and the insurer. The community can then use FEMA mitigation grant funds to help pay for any additional portion of the cost of elevation, flood-proofing, relocation or demolition that is more than the ICC claim payment.

It is extremely important for policyholders and community officials to work closely together at every stage of this process. Individual participation in a FEMA-funded community mitigation project is voluntary and the community is required to provide mitigation funds to any property owner whose ICC payment was counted towards the matching funds.

## **HOW TO FILE AN ICC CLAIM**

Your ICC claim is adjusted separately from the flood damage claim you file under your Standard Flood Insurance Policy. You can only file an ICC claim if your community determines that your home or business has been substantially damaged or repetitively damaged by a flood. This determination is made when you apply for a building permit to begin repairing your home or business.

If your community does determine that your home or business is substantially or repetitively damaged, a local official will explain the floodplain management ordinance provisions that you will have to meet. You may also want to consult with the local official before you make the final decision about which of the options to pursue.

Once your community has made this determination, contact the insurance company or agent who wrote your flood policy to file an ICC claim. Your insurer will assign a claims representative who will help you process your ICC claim. You should start getting estimates from contractors to take the necessary steps to elevate, relocate, flood-proof, or demolish.

## **HOW YOUR ICC CLAIM PAYMENT IS HANDLED**

You may be able to receive a partial payment once the claims representative has a copy of the signed contract for the work, a permit from the community to do the work, and a return of your signed ICC Proof of Loss. If the work is not completed, you must return any partial payment to your insurer.

When the work is completed, local officials will inspect and issue a certificate of occupancy or a confirmation letter. Once you submit this document to your claims representative, your insurer will pay the final installment or full payment.

**ICC claims will only be paid on flood-damaged homes and businesses, and can only be used to pay for costs of meeting the floodplain management ordinance in your community.**

For more information on ICC coverage,

- Call your insurance company or agent, or call the NFIP at 1-800-427-4661. TDD# 1-800-427-5593. Additional information is available at [www.fema.gov/nfip](http://www.fema.gov/nfip).
- NJDEP Office of Engineering and Construction, Bureau of Dam Safety and Flood Control  
P. O. Box 419, Trenton, NJ 08625  
**John H. Moyle, PE, State NFIP Coordinator**  
Tele: (609) 292-2296; Fax: (609) 984-1908; Web: [www.state.nj.us/dep/floodcontrol](http://www.state.nj.us/dep/floodcontrol)
- New Jersey Office of Emergency Management, Division of State Police  
P. O. Box 7068, West Trenton, NJ 08628-0068  
**Lt. Robert Little, State Hazard Mitigation Officer**  
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# Public Assistance Program

## Section 406 – Mitigation and Public Assistance

The FEMA Public Assistance Grant Program is based on the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), the underlying document that authorizes the program. Regulations published in Title 44 of the *Code of Federal Regulations* (44 CFR) Part 206 implement and interpret the statute. Policies are written to apply the statute and regulations to specific situations. These documents govern the eligibility criteria through which FEMA provides funds for Public Assistance. These criteria have the following four components: Eligible Applicants, Eligible Costs, Eligible Facilities, and Eligible Work. Alternate and improved projects may be applied for under certain criteria, as explained below.

The applicant is the basis for eligibility. The **applicant** must be eligible for the facility to be eligible. The **facility** must be eligible for the work to be eligible. The **work** must be eligible for the cost to be eligible. Using these guidelines, FEMA determines whether the various components are eligible for disaster assistance. Additional information on the FEMA Public Assistance Grant Program may be found in the publication FEMA 321, Public Assistance Policy Digest.

### Eligible Applicants

Four types of entities are eligible applicants for Public Assistance. If an entity meets the requirements of one of the types, the applicant may apply for FEMA disaster assistance. They are:

1. State government agencies, such as Departments of Transportation and Environmental Resources/Protection agencies.
2. Local governments municipalities, regional and interstate government entities and School districts
3. Private nonprofit organizations or institutions that own or operate facilities that are open to the public and that provide certain services otherwise performed by a government agency including educational, emergency, medical, utilities, custodial care, community centers, homeless shelters, libraries, museums, rehabilitation centers, zoos, and health and safety service facilities
4. Federally recognized Indian tribes or authorized tribal organizations.

### Eligible Costs

Not all costs incurred by an eligible applicant are eligible for Public Assistance funding. Eligible costs are costs that:

1. Are reasonable and necessary to accomplish the eligible work;
2. Comply with federal, state, and local requirements for procurement; and
3. Do not include (or are reduced by) insurance proceeds, salvage values, and other credits

The eligible cost criteria apply to all direct costs, including salaries, wages, fringe benefits, materials, equipment, and contracts awarded for eligible work. In addition to these direct costs, an applicant will receive an administrative allowance.

### Eligible Facilities (Projects)

Projects eligible for Public Assistance funding include facilities for transportation, water control, utilities, and recreation, and are listed below by the categories defined by FEMA.

- Category A: Removal of debris, including clearance of trees, woody debris, and building wreckage; sand, mud, silt, and gravel; and other disaster-related material on public property.
- Category B: Measures taken before, during, and after a disaster to save lives and protect public health and safety.
- Category C: Roads, bridges, and associated features, such as shoulders, ditches, culverts, lighting and signs.
- Category D: Water control facilities, including drainage channels, pumping facilities, and the emergency repair of levees. Permanent repair of flood control works is the responsibility of the U.S. Army Corps of Engineers and the Natural Resources Conservation Service.
- Category E: Buildings including their contents and systems.
- Category F: Utility distribution systems, such as water treatment and delivery systems, power generation facilities and distribution lines, and sewage collection and treatment facilities.
- Category G: Public parks, recreational facilities and other facilities, including playgrounds, swimming pools and cemeteries.

### Eligible Work

In general, eligible work is based on the following minimum criteria:

- It must be required as a direct result of the declared event
- It must be within the designated disaster area
- It must be the legal responsibility of an eligible applicant at the time of the disaster

There are two types of work eligible for the Public Assistance Grant Program. These types of work are:

- Emergency work (Categories A and B)
- Permanent work (Categories C through G)

### Alternate Projects

Occasionally an applicant may determine that the public welfare would not be best served by restoring a damaged facility or its function to the pre-disaster design. This usually occurs when the service provided by the facility is no longer needed, although the facility was still in use at the time of the disaster.

Under these circumstances, the applicant may apply to FEMA to use the eligible funds for an alternate project. Possible alternate projects include:

- Repair or expansion of other public facilities
- Construction of new public facilities
- Purchase of capital equipment
- Funding of hazard mitigation measures in the area affected by the disaster

The alternate project option may be proposed for both small and large projects, but only for permanent restoration projects located within the declared disaster area. All requests for alternate projects must be made within 12 months of the kickoff meeting and approved by FEMA prior to construction. However, due to the extent of disaster related damage in Greater New Orleans, many deadlines have been extended. Alternate projects are eligible for 75 percent of the approved federal share of the estimated eligible costs associated with repairing the damaged facility to its pre-disaster design, or the actual costs of completing the alternate project, whichever is less. The share of the costs may be increased to 90 percent for publicly owned facilities where unstable soils are present at the site of the damaged facility. This exception does not apply to private nonprofit facilities.

The proposed alternate project must not be located in the regulatory floodway and will have to be insured if located in the 100-year floodplain. Public Assistance funding may not be used for operating costs or to meet the state or local share requirement on other Public Assistance projects or projects that use other federal grants. Hazard Mitigation funds cannot be applied to an alternate project (Hazard Mitigation, Stafford Act Section 406). An environmental assessment is normally performed for alternate projects. For alternate projects in Greater New Orleans, Alternative Arrangements will be used and applicants must meet all Alternative Arrangement requirements. Environmental/Historic Preservation review must be completed prior to approval of alternate projects by the grantee.

### Improved Projects

Applicants performing restoration work on a damaged facility may use the opportunity to make additional improvements while restoring the facility to its pre-disaster design. For example, an applicant might propose laying asphalt on a gravel road or replacing a firehouse that originally had two bays with one that has three. Projects that incorporate such improvements are called improved projects. For the most part, these are projects in which it is hard to differentiate between the funding for approved work the improved project because of physical changes or contracting arrangements.

An improved project may be requested for both small and large projects, but must be approved by the grantee prior to construction. Any project that results in a significant change from the pre-disaster configuration (that is, different location, footprint, function, or size) must be reviewed by FEMA's Environmental and Historic Preservation process prior to initiation of any construction or deconstruction activity. Environmental/Historic Preservation review must be completed prior to approval of improved projects by the grantee. Federal funding for improved projects is limited to the federal share of the estimated costs and to the time limits that would be associated with repairing the damaged facility to its pre-disaster design. Funds to construct the improved project can be combined with a grant from another federal agency; however, federal grants cannot be used to meet the grantee or local cost-share requirement.

If the original facility is being repaired and improvements are being added, Section 406 Hazard Mitigation funding may be applied to the original facility. If the improved project involves a new facility on the same site or on a different site, Hazard Mitigation funding will not be applied to that project.

**Section 406 Public Assistance (PA)** is a post-disaster program established under Section 406 of the Stafford Act—it is jointly administered by FEMA and individual states. As part of the reimbursements made to restore damaged public facilities and certain private non-profit (PNP) facilities, public assistance funds may be made available for cost-effective mitigation measures undertaken as part of the recovery. The amount of Section 406 Mitigation funds made available in any given disaster is not computed by a formula, but is based on a project-by-project evaluation of the feasibility and cost-effectiveness of mitigation measures.

Who determines which structures are "substantially damaged?" Substantial damages means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.	The local government official – usually the Floodplain management official - make "substantially damaged" determinations based on the data that is collected. The determination is not made by FEMA or the state
<b>Conditions</b>	<b>Eligible Costs</b>
1. The repair cost does not exceed 50% of the replacement cost and no upgrades are triggered -	Repair of eligible damage only.
2. The repair cost does not exceed 59% of the replacement cost. However, upgrades to undamaged elements are triggered by codes and standards. The total of the two items is greater than 50% but less than 100% of the estimated replacement cost -	Repair of eligible damage plus mandatory upgrade costs.
3. The repair cost does not exceed 59% of the replacement cost. However, upgrades to undamaged elements are triggered by codes and standards. The total of the two items is greater than 100% of the estimated replacement cost -	Repair of eligible damage plus mandatory upgrade costs, but totals eligible costs are capped at the estimated replacement cost. In this case, the applicant may elect to replace the facility, but total eligible costs are capped at the estimated replacement cost.
4. The repair cost exceeds 50% of the estimated replacement cost. -	The facility's replacement cost is eligible. In accordance with 44 CFR Section 206.226(f)(2), the applicant may elect to repair the facility in conformity with applicable codes and standards. In this case, eligible costs are limited to the estimated costs of repair or replacement, whichever is lower.
Relocation: FEMA funds can be used for the permanent relocation of a facility when -	<ul style="list-style-type: none"> <li>• An applicable floodplain management regulation requires relocation away from the hazardous area.</li> <li>• The original facility is and will be subject to repetitive heavy damage.</li> <li>• The approval is not barred by other provisions of policy, and</li> <li>• The overall project, including all costs, is cost-effective.</li> </ul>

**For more information Contact: Lt. Robert Little, State Hazard Mitigation Officer**

NJ Office of Emergency Management, Division of State Police, PO Box 7068, West Trenton, NJ 08628-0068

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## FEDERAL MITIGATION PROGRAMS, ACTIVITIES, AND INITIATIVES

This is a summary of available federal programs that relate to mitigation planning and may provide possible sources of funding or technical support for mitigation initiatives. The information was included in the [Hudson and Cape May Counties All Hazard Plans](#) prepared by the consulting Firm of Tetra Tech.

Program/Activity	Type of Assistance	Agency and Contact
<b>B a s i c   a n d   A p p l i e d   R e s e a r c h / D e v e l o p m e n t</b>		
Center for Integration of Natural Disaster Information	<b>Technical Assistance:</b> Develops and evaluates technology for information integration and dissemination	Department of Interior (DOI) –US Geological Survey (USGS), The Center for Integration of Natural Hazards Research: (703) 648-6059 <a href="mailto:hazinfo@usgs.gov">hazinfo@usgs.gov</a>
Hazard Reduction Program	<b>Funding</b> for research and related educational activities on hazards.	National Science Foundation (NSF), Directorate for Engineering, Division of Civil and Mechanical Systems, Hazard Reduction Program: (703) 306-1360
Decision, Risk, and Management Science Program	<b>Funding</b> for research and related educational activities on risk, perception, communication, and management (primarily technological hazards)	NSF – Directorate for Social, Behavioral and Economic Science, Division of Social Behavioral and Economic Research, Decision, Risk, and Management Science Program (DRMS): (703) 306-1757 <a href="http://www.nsf.gov/sbe/drms/start.htm">www.nsf.gov/sbe/drms/start.htm</a>
Societal Dimensions of Engineering, Science, and Technology Program	<b>Funding</b> for research and related educational activities on topics such as ethics, values, and the assessment, communication, management and perception of risk	NSF – Directorate for Social, Behavioral and Economic Science, Division of Social, Behavioral and Economic Research, Societal Dimensions of Engineering, Science and Technology Program: (703) 306-1743
National Earthquake Hazard Reduction Program (NEHRP) in Earth Sciences	<b>Research</b> into basic and applied earth and building sciences.	NSF – Directorate for Geosciences, Division of Earth Sciences: (703) 306-1550
<b>T e c h n i c a l   a n d   P l a n n i n g   A s s i s t a n c e</b>		
Planning Assistance to States	<b>Technical and planning assistance</b> for the preparation of comprehensive plans for the development, utilization, and conservation of water and related land resources.	Department of Defense (DOD) US Army Corps of Engineers (USACE) - See below for contact information
Disaster Mitigation Planning and Technical Assistance	<b>Technical and planning assistance</b> grants for capacity building and mitigation project activities focusing on creating disaster resistant jobs and workplaces.	Department of Commerce (DOC), Economic Development Administration (EDA): (800) 345-1222 EDA's Disaster Recovery Coordinator: (202) 482-6225 <a href="http://www.doc.gov/eda">www.doc.gov/eda</a>
Watershed Surveys and Planning	<b>Surveys and planning studies</b> for appraising water and related resources, and formulating alternative plans for conservation use and development. Grants and advisory/counseling services to assist w/ planning and implementation improvement.	US Department of Agriculture (USDA) – National Resources Conservation Service (NRCS) Watersheds and Wetlands Division: (202) 720-4527 Deputy Chief for Programs: (202) 690-0848 <a href="http://www.nrcs.usda.gov">www.nrcs.usda.gov</a>
National Flood Insurance Program	<b>Formula grants to States</b> to assist communities to comply with NFIP floodplain management requirements (Community Assistance Program).	FEMA * See below for contact information
Emergency Management / Mitigation Training	<b>Training</b> in disaster mitigation, preparedness, planning.	FEMA * See below for contact information



<b>Program/Activity</b>	<b>Type of Assistance</b>	<b>Agency and Contact</b>
National Dam Safety Program	<b>Technical assistance</b> , training, and grants to help improve State dam safety programs.	<b>FEMA</b> * See below for contact information
National Earthquake Hazards Reduction Program	<b>Training, planning and technical assistance</b> under grants to States or local jurisdictions.	<b>FEMA; DOI-USGS</b> Earthquake Program Coordinator: (703) 648-6785
Volcano Hazards Program	<b>Technical assistance</b> : Volcano hazard warnings and operation of four volcano observatories to monitor and assess volcano hazard risk.	<b>DOI-USGS</b> Volcanic Hazards Program Coordinator: (703) 648-6708 (650) 329-5228
Floodplain Management Services	<b>Technical and planning assistance</b> at the local, regional, or national level needed to support effective floodplain management.	Department of Defense ( <b>DOD</b> ) US Army Corps of Engineers ( <b>USACE</b> ) - See below for contact information
Watershed Protection and Flood Prevention Program	<b>Technical and financial assistance</b> for installing works of improvement to protect, develop, and utilize land or water resources in small watersheds under 250,000 acres.	<b>USDA-NRCS</b> Director, Watersheds and Wetlands Division: (202) 720-3042 (202) 690-4614 <a href="http://www.nrcs.usda.gov">www.nrcs.usda.gov</a>
Environmental Quality Incentives Program (EQIP)	<b>Technical</b> , educational, and limited <b>financial assistance</b> to encourage environmental enhancement.	<b>USDA-NRCS – See above</b>
National Earthquake Hazard Reduction Program	<b>Technical and planning assistance</b> for activities associated with earthquake hazards mitigation.	<b>FEMA, DOI-USGS</b> Earthquake Program Coordinator: (703) 648-6785
<b>H a z a r d I d e n t i f i c a t i o n A n d M a p p i n g</b>		
National Flood Insurance Program: Flood Mapping	<b>Flood insurance rate maps</b> and flood plain management maps for all NFIP communities;	<b>FEMA</b> * See below for contact information
National Flood Insurance Program: Technical Mapping Advisory Council	<b>Technical guidance and advice</b> to coordinate FEMA's map modernization efforts for the National Flood Insurance Program.	<b>DOI-USGS</b> <b>USGS</b> – National Mapping Division: (573) 308-3802
National Digital Orthophoto Program	Develops <b>topographic quadrangles</b> for use in mapping of flood and other hazards.	<b>DOI-USGS</b> <b>USGS</b> – National Mapping Division: (573) 308-3802
Stream gauging and Flood Monitoring Network	Operation of a <b>network of over 7,000 stream gauging stations</b> that provide data on the flood characteristics of rivers.	<b>DOE-USGS</b> Chief, Office of Surface Water, <b>USGS</b> : (703) 648-5303
Mapping Standards Support	<b>Expertise in mapping and digital data</b> standards to support the National Flood Insurance Program.	<b>DOI-USGS</b> <b>USGS</b> – National Mapping Division: (573) 308-3802
Soil Survey	<b>Maintains soil surveys</b> of counties or other areas to assist with farming, conservation, mitigation or related purposes.	<b>USDA-NRCS</b> NRCS – Deputy Chief for Soil Science and Resource Assessment: (202) 720-4630
National Earthquake Hazards Reduction Program	<b>Seismic mapping for U.S.</b>	<b>DOI-USGS</b> Earthquake Program Coordinator: (703) 648-6785
<b>P r o j e c t S u p p o r t</b>		
Aquatic Ecosystem Restoration	<b>Direct support</b> for carrying out aquatic ecosystem restoration projects that will improve the quality of the environment.	Department of Defense ( <b>DOD</b> ) US Army Corps of Engineers ( <b>USACE</b> ) - See below for contact information

Program/Activity	Type of Assistance	Agency and Contact
Beneficial Uses of Dredged Materials	<b>Direct assistance</b> for projects that protect, restore, and create aquatic and ecologically related habitats, including wetlands, in connection with dredging an authorized Federal navigation project.	Department of Defense ( <b>DOD</b> ) US Army Corps of Engineers ( <b>USACE</b> ) - See below for contact information
Wetlands Protection – Development Grants	<b>Grants</b> to support the development and enhancement of State and tribal wetlands protection programs.	US Environmental Protection Agency ( <b>EPA</b> ) EPA Wetlands Hotline: (800) 832-7828 Or EPA Headquarters, Office of Water Chief, Wetlands Strategies and State Programs: (202) 260-6045
Clean Water Act Section 319 Grants	<b>Grants to States</b> to implement non-point source programs, including support for non-structural watershed resource restoration activities.	<b>EPA</b> Office of Water Chief, Non-Point Source Control Branch: (202) 260-7088, 7100
Coastal Zone Management Program	<b>Grants</b> for planning and implementation of non-structural coastal flood and hurricane hazard mitigation projects and coastal wetlands restoration.	Department of Commerce <b>DOC</b> National Oceanic and Atmospheric Administration ( <b>NOAA</b> ) National Ocean Service Office of Ocean and Coastal Resource Management Chief, Coastal Programs Division: (301) 713-3102
Community Development Block Grant (CDBG) State Administered Program	<b>Grants to States</b> to develop viable communities (e.g., housing, a suitable living environment, expanded economic opportunities) in non-entitled areas, for low- and moderate-income persons.	US Department of Housing and Urban Development ( <b>HUD</b> ) State CDBG Program Manager Or State and Small Cities Division, Office of Block Grant Assistance, HUD Headquarters: (202) 708-3587
Community Development Block Grant Entitlement Communities Program	<b>Grants</b> to entitled cities and urban counties to develop viable communities (e.g., decent housing, a suitable living environment, expanded economic opportunities), principally for low- and moderate-income persons.	<b>HUD</b> City and county applicants should call the Community Planning and Development staff of their appropriate HUD field office. As an alternative, they may call the Entitlement Communities Division, Office of Block Grant Assistance, HUD Headquarters: (202) 708-1577, 3587
Emergency Watershed Protection Program	Provides <b>technical and financial assistance</b> for relief from imminent hazards in small watersheds, and to reduce vulnerability of life and property in small watershed areas damaged by severe natural hazard events.	<b>USDA – NRCS</b> National Office – (202) 690-0848 Watersheds and Wetlands Division: (202) 720-3042
Rural Development Assistance -- Utilities	Direct and guaranteed rural economic <b>loans and business enterprise grants</b> to address utility issues and development needs.	<b>USDA-Rural Utilities Service (RUS)</b> Program Support: (202) 720-1382 Northern Regional Division: (202) 720-1402 Electric Staff Division: (202) 720-1900 Power Supply Division: (202) 720-6436
Rural Development Assistance – Housing	<b>Grants, loans, and technical assistance</b> in addressing rehabilitation, health and safety needs in primarily low-income rural areas. Declaration of major disaster necessary.	<b>USDA-Rural Housing Service (RHS)</b> Community Programs: (202) 720-1502 Single Family Housing: (202) 720-3773 Multi Family Housing: (202) 720-5177
Flood Mitigation Assistance	<b>Grants to States</b> and communities for pre-disaster mitigation to help reduce or eliminate the long-term risk of flood damage to structures insurable under the National Flood Insurance Program.	<b>FEMA</b> * See below for contact information
Hazard Mitigation Grant Program	<b>Grants to States and communities</b> for implementing long-term hazard mitigation measures following a major disaster declaration.	<b>FEMA</b> * See below for contact information

Program/Activity	Type of Assistance	Agency and Contact
Public Assistance Program (Infrastructure)	<b>Grants to States and communities</b> to repair damaged infrastructure and public facilities, and help restore government or government-related services. Mitigation funding is available for work related to damaged components of the eligible building or structure.	<b>FEMA</b> * See below for contact information
National Flood Insurance Program	Makes available <b>flood insurance</b> to residents of communities that adopt and enforce minimum floodplain management requirements.	<b>FEMA</b> * See below for contact information
HOME Investments Partnerships Program	<b>Grants to States, local government</b> and consortia for permanent and transitional housing (including support for property acquisition and rehabilitation) for low-income persons.	<b>HUD</b> Community Planning and Development, Grant Programs, Office of Affordable Housing, HOME Investment Partnership Programs: (202) 708-2685 (202) 708 0614 extension 4594 1-800-998-9999
Disaster Recovery Initiative	<b>Grants</b> to fund gaps in available recovery assistance after disasters (including mitigation).	<b>HUD</b> Community Planning and Development Divisions in their respective HUD field offices or HUD Community Planning and Development: (202) 708-2605
Non-Structural Alternatives to Structural Rehabilitation of Damaged Flood Control Works	<b>Direct planning and construction grants</b> for non-structural alternatives to the structural rehabilitation of flood control works damaged in floods or coastal storms. \$9 million FY99	Department of Defense ( <b>DOD</b> ) US Army Corps of Engineers ( <b>USACE</b> ) - See below for contact information
Partners for Fish and Wildlife	<b>Financial and technical assistance</b> to private landowners interested in pursuing restoration projects affecting wetlands and riparian habitats.	Department of Interior ( <b>DOI</b> ) – Fish and Wildlife Service ( <b>FWS</b> ) National Coordinator, Ecological Services: (703) 358-2201 A list of State and Regional contacts is available from the National Coordinator upon request.
Project Modifications for Improvement of the Environment	Provides for <b>ecosystem restoration</b> by modifying structures and/or operations or water resources projects constructed by the USACE, or restoring areas where a USACE project contributed to the degradation of an area.	Department of Defense ( <b>DOD</b> ) US Army Corps of Engineers ( <b>USACE</b> ) - See below for contact information
Post-Disaster Economic Recovery Grants and Assistance	<b>Grant funding</b> to assist with the long-term economic recovery of communities, industries, and firms adversely impacted by disasters.	Department of Commerce ( <b>DOC</b> ) – Economic Development Administration ( <b>EDA</b> ) EDA Headquarters Disaster Recovery Coordinator: (202) 482-6225
Public Housing Modernization Reserve for Disasters and Emergencies	<b>Funding</b> to public housing agencies for modernization needs resulting from natural disasters (including elevation, flood proofing, and retrofit).	<b>HUD</b> Director, Office of Capital Improvements: (202) 708-1640
Indian Housing Assistance (Housing Improvement Program)	<b>Project grants and technical assistance</b> to substantially eliminate sub-standard Indian housing.	Department of Interior ( <b>DOI</b> )-Bureau of Indian Affairs ( <b>BIA</b> ) Division of Housing Assistance, Office of Tribal Services: (202) 208-5427
Land Protection	<b>Technical assistance</b> for run-off retardation and soil erosion prevention to reduce hazards to life and property.	<b>USDA-NRCS</b> Applicants should contact the National NRCS office: (202) 720-4527
North American Wetland Conservation Fund	<b>Cost-share grants</b> to stimulate public/private partnerships for the protection, restoration and management of wetland habitats.	<b>DOI-FWS</b> North American Waterfowl and Wetlands Office: (703) 358-1784
Land Acquisition	<b>Acquires or purchases easements</b> on high-quality lands and waters for inclusion into the National Wildlife Refuge System.	<b>DOI-FWS</b> Division of Realty, National Coordinator: (703) 358-1713

Program/Activity	Type of Assistance	Agency and Contact
Federal Land Transfer / Federal Land to Parks Program	<b>Identifies, assesses, and transfers available Federal real</b> property for acquisition for State and local parks and recreation, such as open space.	<b>DOI-NPS</b> General Services Administration Offices Fort Worth, TX: (817) 334-2331      Boston, MA: (617) 835-5700 Or Federal Lands to Parks Leader <b>NPS National Office:</b> (202) 565-1184
Wetlands Reserve Program	<b>Financial and technical assistance</b> to protect and restore wetlands through easements and restoration agreements.	<b>USDA-NRCS</b> National Policy Coordinator NRCS Watersheds and Wetlands Division: (202) 720-3042
Transfers of Inventory Farm Properties to Federal and State Agencies for Conservation Purposes	Transfers title of certain inventory farm properties owned by FSA to Federal and State agencies for <b>conservation</b> purposes (including the restoration of wetlands and floodplain areas to reduce future flood potential)	US Department of Agriculture ( <b>USDA</b> ) – Farm Service Agency ( <b>FSA</b> ) Farm Loan Programs National Office: (202) 720-3467, 1632
<b>F i n a n c i n g   a n d   L o a n   G u a r a n t e e s</b>		
Physical Disaster Loans and Economic Injury Disaster Loans	<b>Disaster loans</b> to non-farm, private sector owners of disaster damaged property for uninsured losses. Loans can be increased by up to 20 percent for mitigation purposes.	Small Business Administration ( <b>SBA</b> ) National Headquarters Associate Administrator for Disaster Assistance: (202) 205-6734
Conservation Contracts	<b>Debt reduction</b> for delinquent and non-delinquent borrowers in exchange for conservation contracts placed on environmentally sensitive real property that secures FSA loans.	<b>USDA-FSA</b> Farm Loan Programs FSA National Office: (202) 720-3467, 1632 or local FSA office
Clean Water State Revolving Funds	<b>Loans</b> at actual or below-market interest rates to help build, repair, relocate, or replace wastewater treatment plants.	<b>EPA</b> EPA Office of Water State Revolving Fund Branch Branch Chief: (202) 260-7359 A list of Regional Offices is available upon request
Section 108 Loan Guarantee Program	<b>Loan guarantees</b> to public entities for community and economic development (including mitigation measures).	<b>HUD</b> Community Planning and Development staff at appropriate HUD field office, or the Section 108 Office in HUD Headquarters: (202) 708-1871
Section 504 Loans for Housing	<b>Repair loans, grants and technical assistance</b> to very low-income senior homeowners living in rural areas to repair their homes and remove health and safety hazards.	US Department of Agriculture ( <b>USDA</b> ) – Rural Housing Service ( <b>RHS</b> ) Contact local RHS Field Office, or RHS Headquarters, Director, Single Family Housing Direct Loan Division: (202) 720-1474
Section 502 Loan and Guaranteed Loan Program	Provides <b>loans, loan guarantees, and technical assistance</b> to very low and low-income applicants to purchase, build, or rehabilitate a home in a rural area.	<b>USDA-RHS</b> Contact the Local RHS Field Office, or the Director, Single Family Housing Guaranteed Loan Division, RHS: (202) 720-1452
Rural Development Assistance -- Utilities	Direct and guaranteed <b>rural economic loans and business enterprise grants</b> to address utility issues and development needs.	<b>USDA-Rural Utility Service (RUS)</b> Contact Rural Development Field Offices, or RHS, Deputy Administrator, Community Programs Division: (202) 720-1490
Farm Ownership Loans	<b>Direct loans, guaranteed / insured loans, and technical assistance</b> to farmers so that they may develop, construct, improve, or repair farm homes, farms, and service buildings, and to make other necessary improvements.	<b>USDA-FSA</b> Director, Farm Programs Loan Making Division, FSA: (202) 720-1632

**\* Contact Information**

<p><b>FEMA Headquarters</b>  <b>Federal Emergency Management Agency</b>          500 C Street S.W.          Washington, D.C. 20472          Telephone: 1 (202) 646-2500</p>	<p><b>FEMA Region 2</b>  <b>Federal Emergency Management Agency</b>          26 Federal Plaza, Suite 1337          New York, NY 10278-0002          External Affairs Information Desk: (212) 680-8516          Mitigation Information 212-680-3600</p>
<p><b>Department of Defense (DOD) US Army Corps of Engineers (USACE)</b>          Contact the Floodplain Management Staff in the Appropriate USACE          Regional Office          North Atlantic: (212) 264-7813                      South Atlantic: (404) 331-4441          Great Lakes and Ohio River: (513) 684-6050          Mississippi Valley: (601) 634-5827          Northwestern: (503) 808-3853                      Southwestern: (214-767-2613          South Pacific: (415) 977-8164                      Pacific Ocean: (808) 438-8863</p>	

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# Why Acquisition?

## FEDERAL ASSISTANCE IN THE ACQUISITION OF PROPERTY

In this discussion “Community” can mean the State or the municipal or county jurisdiction

### Why acquisition / buyout?

FEMA knows that it can be difficult for people to leave a precious home- even a home severely damaged by a disaster. Many communities and people have considered such an action, and they've rebuilt their lives and created new memories in safer places.

Since 1993, participating communities have purchased more than 20,000 properties as to prevent future damages. FEMA encourages all homeowners in affected communities to be sure they get all the information they need about buyouts so they can make the best decision for their families and their communities.

### How Buyouts Work

It is important to understand that FEMA does not buy houses directly from the property owners. Acquisition or Buyout projects, while 75 percent funded by FEMA, are administered by the State and local communities. The State and local communities work together to identify areas where buyouts make the most sense. Individuals may not apply directly to the State, but the community may sponsor an application on their behalf. Buyouts are an important way to reduce the risk of future disasters. Money is limited and in most cases, the amount of money set aside for mitigation cannot meet all the mitigation needs following a disaster. States prioritize mitigation programs with input from the communities.

Property acquisition is one of many forms of hazard mitigation but it is the most permanent form. It removes people from harm's way forever. In a property acquisition project, the community buys private property, acquires title to it, and then clears it. By law, that property, which is now public property, must forever remain open space land. The community can use it to create public parks, wildlife refuges, etc. but it cannot sell it to private individuals nor develop it. Property acquisitions work the same way as any other real estate transaction. Property owners who want to sell their properties will be given fair prices for them. It is a terrific opportunity for people who live on or near hazard areas to get to safer ground.

### Fair Compensation

Communities may offer homeowners who agree to participate in a buyout project up to the fair market value of the home BEFORE the disaster struck. A licensed appraiser hired by the community determines the fair market value.

### Voluntary Participation

Buyouts are strictly voluntary. No homeowners are ever forced to relinquish their property. Homeowners who decide not to participate in the buyout may need to take risk reduction measures, such as elevating their homes.

### The Steps of a Buyout

Homeowners do not apply to FEMA for a buyout. Buyouts are not part of the disaster application process and are not part of disaster assistance.

1. An application for assistance is prepared by local officials with input from the community and those homeowners with destroyed or severely damaged properties. The local officials will have been notified by the State of what the State's priorities are or other special restrictions decided upon by State officials.
2. The State receives and reviews the application and submits those deemed appropriate to FEMA for approval. FEMA reviews the applications to ensure they follow the rules, are environmentally sound, and are a cost-effective use of funds.

3. Once FEMA gives its approval, the State begins the acquisition process. The communities actually conduct the purchase and title transfer. Then the buildings are removed or destroyed by the community, and the land is cleared.

Since a buyout is not a simple matter and requires a great deal of education and community input- it does not happen overnight. It may take months for a State and the affected communities to submit and agree to buyout proposals. Once a homeowner accepts a buyout offer, though, the average closing takes about 45 days.

### **Costs the Community Will Pay**

If you choose to sell your property, the community will pay the costs usually associated with real estate transactions, including the appraisal, title search, and if necessary, lot survey. The community will also pay the closing costs. The property owner will be responsible for any mortgages, liens, etc., against their property...just like any other real estate sale.

Also, like any other real estate sale, you will be responsible for the moving costs and other costs associated with renting or buying new property. Since property acquisition relies on voluntary participation, the government does not pay any relocation costs. However, there are exceptions for any tenant who is displaced by an owner's decision to sell, and for owners whose income level might preclude them from affording other housing.

### **Duplication of Benefits**

Because federal funds are used to acquire property, FEMA "cannot" duplicate the benefits paid by one program with benefits from another source. This means that FEMA will require the community to subtract from the purchase price the amount of other assistance the individual property owner might receive for the same purpose. This assistance includes flood insurance and grants that are available to individuals. However, if the property owner has receipts showing that the money was spent for its intended purpose (for example, repairing the home to make it livable again) the community will not subtract that amount documented by receipts.

### **Advantages and Disadvantages**

Individual property owners will want to weigh the advantages and disadvantages of property acquisition. The advantages of property acquisition include:

- Peace of mind because it reduces, if not eliminates, most of your future risk
- Fair compensation generally based on the pre-flood market value of your home
- A chance for a new start
- A means of recovery that is more advantageous than repair grants or loans
- An opportunity to recoup at least partially your financial investment in a property that has lost value

On the other hand, property acquisition has its disadvantages for you. These may include:

- Loss of roots
- Despite efforts to compensate you fairly, property acquisition may not make you "whole" again

The process can be lengthy. Property acquisition is not an overnight solution. Applying for funds, waiting for approval, transferring funds, conducting appraisals and closings, etc., take time, especially if the project involves many properties.

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# Eligible Mitigation Actions

Excerpts from FEMA PDM Guidance regarding eligible and non-eligible mitigation activities.

[www.fema.gov/pdf/government/grant/fy07\\_pdm\\_guidance.pdf](http://www.fema.gov/pdf/government/grant/fy07_pdm_guidance.pdf) - 2007-10-10

## 1.4 ELIGIBLE ACTIVITIES AND ASSOCIATED COSTS

Mitigation plans and projects must be long-term, feasible, and meet all requirements referenced in the PDM Guidance. Projects also must demonstrate cost-effectiveness. The following are eligible activities for the PDM program:

### 4.1 ELIGIBLE MITIGATION PROJECT ACTIVITIES

Proposed hazard mitigation projects must primarily focus on natural hazards but also may address hazards caused by manmade forces. Funding is restricted to a maximum of \$3 million Federal share per project sub-application. The following are examples of eligible mitigation projects (select from the 200, 300 and 400 series in the Mitigation Activity section in eGrants):

- Voluntary acquisition of real property (*i.e.* structures and land, where necessary) for conversion to open space in perpetuity
- Relocation of public or private structures ;
- Elevation of existing public or private structures to avoid coastal or riverine flooding
- Structural retrofitting and non-structural retrofitting (*e.g.*, storm shutters, hurricane clips, bracing systems) of existing public or private structures to meet or exceed applicable building codes relative to hazard mitigation.
- Construction of safe rooms (tornado and severe wind shelters) for public and private structures that meet the FEMA construction criteria in FEMA 320 "Taking Shelter from the Storm" and FEMA 361 "Design and Construction Guidance for Community Shelters"
- Hydrologic and Hydraulic studies/analyses, engineering studies, and drainage studies for the purpose of project design and feasibility determination;
- Vegetation management for natural dune restoration, wildfire or snow avalanche
- Protective measures for utilities (*e.g.*, electric and gas); water and sanitary sewer systems and/or infrastructure (*e.g.*, roads and bridges)
- Storm water management projects (*e.g.*, culverts, retention basins) to reduce or eliminate long-term risk from flood hazards and
- Localized flood control projects, such as certain ring levees, bank stabilization, and floodwall systems that are designed specifically to protect critical facilities (defined as Hazardous Materials Facilities, Emergency Operation Centers, Power Facilities, Water Facilities, Sewer and Wastewater Treatment Facilities, Communications Facilities, Emergency Medical Care Facilities, Fire Protection, and Emergency Facilities) and that do not constitute a section of a larger flood control system

Any of the above mitigation projects for a defined critical facility may include the purchase of a generator or related equipment purchases (*e.g.*, generator hook-ups) as a functional portion to the larger eligible mitigation project sub-application, as long as the generator or related equipment purchase directly relates to the hazard(s) that threatens the critical facility.

### 3.1 ELIGIBLE MITIGATION PLANNING ACTIVITIES

Planning activities that develop State, tribal, local, and university hazard mitigation plans that meet planning criteria outlined in 44 C.F.R. Part 201 are eligible for the PDM program. The outcome of a mitigation planning grant award must result in an adopted FEMA-approved hazard mitigation plan within three years of award. Therefore, it is essential that the statement of work include sufficient time and resources for FEMA plan review, incorporation of needed revisions, plan adoption, and FEMA approval.

The planning grant deliverable must be a FEMA approved hazard mitigation plan, whether PDM is funding the development of the entire plan or only a portion of the plan. PDM funding may be used for the development of a new FEMA approved hazard mitigation plan, an upgrade of an existing FEMA-approved hazard mitigation plan, or comprehensive revision and update of an already FEMA-approved hazard mitigation plan. Hazard mitigation planning activities must primarily focus on natural hazards but may also address hazards caused by manmade events. Plans may be either single or multi-jurisdictional. Countywide or multi-jurisdictional hazard mitigation plans may be submitted for funding, as many mitigation issues are better resolved by evaluating hazards in a more comprehensive fashion.



## 2.1 ELIGIBLE MANAGEMENT COST ACTIVITIES

Eligible management cost activities include:

- The solicitation, review, and processing of PDM planning and project sub-applications and sub-grant awards;
- Providing technical assistance to Sub-applicants regarding BCA and Environmental/Historic Preservation documentation;
- Geocoding mitigation projects selected for further review;
- Delivery of technical assistance (e.g., plan reviews, planning workshops) intended to support the implementation of planning and project activities;
- Managing grants (e.g., quarterly reporting and close-out);
- Technical monitoring (e.g., site visits, technical meetings); and
- Hiring staff to perform the above activities.

Management cost activities must be consistent with Office of Management and Budget Circular A-87, Cost Principles for State and Local Governments. Indirect costs, if requested, must be included as part of the Cost Estimate for the Applicant management cost sub-application, not to exceed 10% of the total cost of the grant application. Indirect costs are included as part of the total project cost; however, indirect costs in excess of the 10% management costs limit may not be used as part of the non-Federal cost share. There will be no exception to permit the increase in Applicant management costs. Indirect costs

## 1.5 INELIGIBLE ACTIVITIES

Mitigation planning and project sub-applications must meet all requirements referenced in the PDM Guidance. Specific ineligible mitigation planning activities are listed in *Section 3.2, Ineligible Mitigation Planning Activities*. Ineligible project activities are listed in *Section 4.2, Ineligible Project Activities*.

## 3.2 INELIGIBLE MITIGATION PLANNING ACTIVITIES

In addition to the specific ineligible planning activities listed below, any planning effort that duplicates benefits received for the same purpose (i.e., an existing planning grant that has not closed prior to the PDM application deadline) or that is within the primary authority of another Federal program will be considered ineligible. The following planning activities are not eligible for the PDM grant program:

- Flood studies or flood mapping;
- Mapping activities that are not part of a risk assessment;
- Risk assessments, technical assistance, studies, or workshops not resulting in a FEMA approved hazard mitigation plan;
- Information dissemination activities exceeding 10% of the total cost of the planning sub-application or that are not tied directly to a PDM planning sub-application;
- Any ground disturbing activity that would initiate the environmental review and compliance process;
- Pre-award activities not directly related to the development of the planning sub-application or implementing the proposed planning activity; and
- Limited revisions and amendments that do not result in a comprehensive hazard mitigation plan update.

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## UNDERSTANDING THE ALPHABET SOUP OF ACQUISITION

In an acquisition program involving the purchase of flood prone properties, the following alphabet reference terms are frequently used. To better understand the need for a single item, it is best to recognize its relationship to other elements required in the acquisition process. The terms are;

1. Federal Emergency Management Agency (FEMA) funds through HMGP, FMA, SRL, RFC, and PDM
2. HMP
3. BCA
4. BFE
5. FFE

### 1. FEMA Funding Programs

Federal grants for the purchase of flood prone properties by the state, county or local jurisdiction is available through 5 specific programs: Grants range from 75% to 100% of the acquisition cost.

	<ul style="list-style-type: none"> <li>• <i>The Hazard Mitigation Grant Program (HMGP)</i></li> </ul>	<p><i>HMGP funds are available only after a Presidential declared disaster has been declared. Funding is based on the severity of the event.</i></p>
<b>Annual H M Assistance</b>	<ul style="list-style-type: none"> <li>• <i>The Flood Mitigation Assistance (FMA) Program,</i></li> </ul>	<p><i>FMA funds are based on annual appropriations. Funds are available to communities with an approved HMP/FMA plan.</i></p>
	<ul style="list-style-type: none"> <li>• <i>The Pre-Disaster Mitigation (PDM) Program</i></li> </ul>	<p><i>PDM funds are based on competitive annual appropriations..</i></p>
	<ul style="list-style-type: none"> <li>• <i>The Repetitive Flood Claims (RFC) Program.</i></li> </ul>	<p><i>The RFC and SRL grant programs are designed to reduce or eliminate the long-term risk of flooding to NFIP-insured structures, and thereby reduce the number of claims paid from the National Flood Insurance Fund (NFIF).</i></p>
	<ul style="list-style-type: none"> <li>• <i>The Severe Repetitive Loss (SRL) Program</i></li> </ul>	

Additional information can be found in NJOEM Handout 003 Fact Sheet

### 2. Hazard Mitigation Plan (HMP)

To be eligible to receive the above federal funds, the State of New Jersey must have a FEMA approved Mitigation Plan in place as well as the county, or a municipality in which the property is located. The New Jersey State Hazard Mitigation Plan was approved in 2008 and is scheduled update/approval in 2011. Twenty of New Jersey's twenty-one counties have completed their plans and the final approval process of the plan is in process or has been completed.

Additional information can be found in NJOEM Handout 005 Mitigation Planning and Handout 51 Status of Planning.

### 3. Benefit Cost Analysis (BCA)

Also, to be eligible for funding the specific acquisition project must meet a positive analysis of costs that establishes a net benefit that would accrue when completed. Generally the BCA calculation is done by an engineer as part of the application development.

Additional information can be found in NJOEM Handout 033 Benefit Cost Analysis.

### 4. Base Flood Elevation (BFE)

The Base Flood Elevation is determined from the FEMA Flood Insurance Study or from the more recent digital information developed through the Map Modernization Program.. The BFE supports the acquisition of the property or the elevation of all living or occupied space above the level of all but the most severe flood events. More information on BFE can be obtained locally from the municipal Flood Plain Manager.

Additional information can be found in NJOEM Handout 052 Map Modernization.

### 5. First Floor Elevation (FFE)

When documenting an acquisition project, the FFE of each structure is documented showing the relationship of the first floor to the base flood elevation. Calculations for BCE are based on the first floor being one foot above the BFE.

As an example, if the BFE throughout the project area is 9 feet National Geodetic Vertical Datum, all properties included in this project will be estimated to a minimum elevation of 10 feet.

Technical information on FFE specifics are readily understood by a Licensed Land Surveyor.

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The purpose of this handout is to show the relationship of the information included in an application for FEMA funding assistance.

- To be eligible for a Federal FEMA grant from one of the funding programs, the jurisdiction must have a FEMA approved plan in place.
- The project must be cost effective to justify the federal funding.
- Each property to be acquired must be documented with information relating the property to the possible flood impact (the base flood elevation) and the severity of the flood based on its first floor elevation.

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# Updating an All Hazards Mitigation Plan

This handout has been prepared for Phase 2 of the NJ Hazard Mitigation Program – Maintenance of the Plan. Under Phase 1, handouts supported plan development. Many multi-jurisdictions (counties) received FEMA funding for professional consultants to coordinate the plan development. Future federal funding for plan updates is never guaranteed and may be harder to obtain. Greater emphasis will be on putting the plans into motion through mitigation projects. County governments, usually lead by the Office of Emergency Management, may bear a greater responsibility in updating the existing plan. The following information is intended to help in the update process.

## Updated Plan Crosswalk Requirement Guidelines:

	<p>The FEMA Mitigation Blue Book was originally prepared to help States, Counties and local governments better understand the Mitigation Planning rule under the <u>Interim Final Rule</u>, 44 CFR Part 201. The Blue Book and the “plan review process” is currently being updated by FEMA. Until revised and promulgated by FEMA the Blue Book remains as the official guidance document.</p>
	<p>The Guidance can be found on line on the FEMA website at: Multi-Hazard Mitigation Planning Guidance Under DMA 2000 (a.k.a. Mitigation Planning "Blue Book"). <u>More information on the redesigned mitigation plan review can be found on the FEMA website <a href="http://www.fema.gov/plan/mitplanning/index.shtm">http://www.fema.gov/plan/mitplanning/index.shtm</a>.</u></p>
<p><b>GENERAL</b> (Blue Book pg 8)</p>	<p><b>Requirement §201.6(d)(3):</b> <i>A local jurisdiction must review and revise its plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and ... (resubmit within 5 years)</i></p> <ul style="list-style-type: none"> <li>Plan updates must demonstrate that progress was made ... to fulfill commitments made in the previously approved plan.</li> <li>This involves a review and update of each section of the plan and a discussion of the results of evaluation and monitoring activities detailed in the Plan Maintenance section of the previous plan.</li> <li><b>A “update” is not an annex to the previous plan. It stands on its own as a complete and current plan.</b></li> </ul>
<p><b>CROSSWALK ELEMENT 3</b></p>	<p>Updated plans must identify (pg 21)</p> <ul style="list-style-type: none"> <li>Jurisdictions which are continuing to participate</li> <li>New jurisdictions participating, and</li> <li>Jurisdictions no longer participating.</li> </ul>
<p><b>CROSSWALK ELEMENT 4</b></p>	<ul style="list-style-type: none"> <li>If a decision is made not to update a section of the plan, the process followed to make that determination must be documented in the update. (pg 27)</li> <li>Plan maintenance section must include a description about how the community was kept involved during the previous plan maintenance section. The community may choose to describe this in the planning process section of the plan. The Plan Maintenance section of the plan is intended to be forward-thinking. (pg 27)</li> </ul>
<p><b>CROSSWALK ELEMENT 5</b></p>	<ul style="list-style-type: none"> <li>Update shall address any newly identified hazard and should include improved descriptions of hazards when available. (pg 31)</li> </ul>
<p><b>CROSSWALK ELEMENT 6</b></p>	<ul style="list-style-type: none"> <li>Update shall discuss new occurrences of hazard events and any new data (pg 33)</li> </ul>
<p><b>CROSSWALK ELEMENT 8</b></p>	<ul style="list-style-type: none"> <li>Updates must continue to address Repetitive Loss Properties (pg 40)</li> </ul>
<p><b>CROSSWALK ELEMENT 12</b></p>	<ul style="list-style-type: none"> <li>Updates must incorporate info on changes to vulnerability when there are changes, and this must be attributed to the appropriate jurisdiction or the jurisdictions, whichever applies. (pg 50)</li> </ul>
<p><b>CROSSWALK ELEMENT 13</b></p>	<ul style="list-style-type: none"> <li>If goals remain unchanged the Updated Plan <b>must document that goals were re-evaluated.</b> (pg 53)</li> </ul>
<p><b>CROSSWALK ELEMENT 16</b></p>	<p>Updated plans shall reflect progress in local mitigation efforts and changes in priorities. (pg 64)</p> <ul style="list-style-type: none"> <li><b>Must identify the completed, deleted or deferred actions or activities</b></li> <li><b>If they remain unchanged, must indicate why changes are not necessary</b></li> <li><b>Must prioritize any new mitigation actions</b></li> </ul>
<p><b>CROSSWALK ELEMENT 17</b></p>	<ul style="list-style-type: none"> <li><b>Updated plans must identify completed, deleted or deferred actions from the previous plan.</b> (pg 65)</li> </ul>

## Additional State Requirements to be included in Plan Updates

### NJOEM Requirements for Plan Update Resubmissions include:

- The **web-address** clearly noted in the introductory section of the plan and included as (1) part of the contact information in the “Introduction Section” and (2) in the “Jurisdiction Identification” box of the Crosswalk.
- Listing of mitigation projects, both FEMA funded and independently financed, that were developed by the jurisdiction(s). The project should be noted as “**mitigation progress**” as part of the plan monitoring section. To realize actual success, it may take several years to document the achievement of the projects.
- Required documentation of the **inclusion and involvement** of the broad range of local government representatives as described above is to be included in the planning section of the updated plan.

The following elements will be included in the NJOEM State review submitting a Plan update using the July 1, 2008 (w/DFIRM) Crosswalk.

Additional State Requirements	Not Met	Met
21. Listing of Web address		
22. Mitigation Progress		
23. Inclusion and involvement of local officials		

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### Development of the County Plan is an opportunity to generate active discussions within municipalities and that opportunity should be maximized.

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**Encourage Greater involvement and active participation in the planning process.** Identify municipal officials and encourage their active participation –



- **Building Code Official** - Assures compliance incorporating mitigation elements against tornadoes, earthquake, etc.
- **Emergency Manager** – Usually, the point of contact in the plan development.
- **Fiscal and Budget Officer** - Identifies funding sources for projected projects.
- **Floodplain Manager** - Controls the new development 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, etc. Also, coordinates with park and open space and its relation to flood prone property acquisition.
- **Administrator or Manager** - Ties all local programs together and involvement in the entire planning process.
- **Public Works Director** - Has the on the ground experience of actual hazard events.

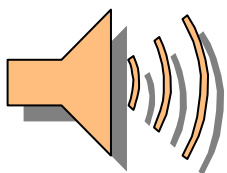
### Be Clear in Describing Specific Mitigation Actions of Proposed (New) Actions.

- For new proposals, be clear what the specific action is. The plan is a guide for the future. Titles such as “Storm water control and flood mitigation,” “Jacobs Street flooding,” “Amherst storm sewer,” “improve park drainage” or “storm sewer” does not indicate what will be done.

**Example:** regarding a sewer project – the proposal should clearly state that it is to construct a new one or modify an existing water collection system and how it will be accomplished. Similarly, stating the action is to reduce fire hazard exposure does not explain what the action will be to accomplish the desired result – such as the reduction of fuels.

## Mitigation Action Status

- **To Be Developed:** Proposals to develop actions in the future - “to develop a range of solutions for flood-prone roads and bridges”, is not a mitigation action but can be included in the strategy as a “bookmark” for potential projects.
- **In Process:** Items listed with a projected completion date should be retained in the mitigation strategy listing and reported as to accomplishments. However, explain if the original completion date has not been met.
- **Ongoing:** Items listed as “ongoing” should be identified in the mitigation strategy listing and reported as an ‘operating mitigation program’. An “operating mitigation program” implies a dedicated staff, funding and some permanency.
- **Completed:** Certain actions that are listed as already completed should be removed from the mitigation strategy listing and reported on as a “mitigation accomplishment” with follow-up to report success.



### Take pride in mitigation accomplishments.

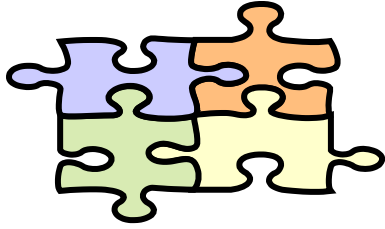
- Success does breed success.
- Good mitigation projects should be documented.
- Publicize what has been done.

## Each jurisdiction must identify a “Range of Mitigation Action Types” for each identified hazard

- The FEMA Local Mitigation Planning Guidance manual clearly states that all requirements must be met by each participating jurisdiction. Guidance states that each participating jurisdiction is required to identify a comprehensive range of specific mitigation actions they will undertake for each hazard.
- Many jurisdictions have identified actions for their most significant hazards, primarily flooding. However, each participating jurisdiction must identify actions they will undertake **for each hazard**.

A recommended way to meet this requirement is to include countywide actions that involve all the jurisdictions and address multiple hazards, such as actions involving building codes and/or public education. If countywide actions are used to meet this plan requirement for other hazards, the Implementation Strategy should specifically describe (a) **how** the individual municipalities will participate, (b) **who** will be responsible, and (c) **what** hazards are addressed.

- The proposed actions must identify *a range of action types*, including 2 or more the following types:
  1. **Prevention.** Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include planning and zoning, building codes, capital improvement programs, open space preservation, and storm water management regulations.
  2. **Property Protection.** Actions that involve the modification of existing buildings or structures to protect them from a hazard, or removal from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
  3. **Public Education and Awareness.** Actions to inform and educate citizens, elected officials, and property owners about the hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and school-age and adult education programs.
  4. **Natural Resource Protection.** Actions that, in addition to minimizing hazard losses, also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
  5. **Emergency Services.** Actions that protect people/property during and immediately after a disaster or hazard event. Services include warning systems, emergency response services, and protection of critical facilities.
  6. **Structural Projects.** Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, levees, floodwalls, seawalls, retaining walls, and safe rooms.



## PUTTING IT ALL TOGETHER

### Mitigation Projects should link to the Risk Assessment

A mitigation strategy is each jurisdiction's blueprint for reducing the potential losses identified in the risk assessment. There should be a connection between the specific risk assessment findings and the mitigation actions.

**Only certain Mitigation actions count for future FEMA funding** (*not* mitigation through preparedness or response, *not* mitigation through maintenance operations, and *not* mitigation through studies).

*Hazard mitigation is defined as any sustained action taken to reduce or eliminate long-term risk to people and property from natural hazards and their effects. This definition distinguishes actions that have a long-term impact from those that are more closely associated with immediate preparedness, response, and recovery activities. Hazard mitigation is the only phase of emergency management specifically dedicated to breaking the cycle of damage, reconstruction, and repeated damage.*

It may be appropriate to initiate discussions of the following since they may develop into mitigation actions.

- **Response/ Preparedness:** Certain actions are emergency response or preparedness in nature, such as updating an emergency response plan, purchasing fire trucks, conducting evacuation exercises, and preparing emergency operations plans. While such actions may be included in the Plan, response actions (and also preparedness and recovery actions) do not substitute for the mitigation action requirements of a Local Mitigation Plan (*Guidance*, p 56).
- **Maintenance Operations:** Some appear to be maintenance operations, rather than mitigation. Projects that address, without an increase in the level of protection, operation, deferred or future maintenance, repairs, or replacement of existing structures, facilities, or infrastructure (e.g., dredging, debris removal, replacement of obsolete utility systems, bridges, and facility repair/rehabilitation) are ineligible activities.
- **Studies:** Other actions appear to be feasibility or engineering studies to develop actions in the future. For example, Shady Grove Fire Dept. - engineering study to determine appropriate flood mitigation actions. By itself, such a study does not constitute a stand-alone mitigation project that solves a problem independently. Studies that are eligible are ones that are integral to the development and implementation of a mitigation project, including hydrologic and hydraulic, engineering, or drainage studies.
- **Example categories of eligible, fundable mitigation projects include:**
  - (a) property acquisition and structure demolition or relocation or structure elevation;
  - (b) mitigation reconstruction;
  - (c) dry flood proofing of historic residential or non-residential structures;
  - (d) minor localized flood reduction projects, including the installation or modification of culverts and storm water management activities (such as creating retention and detention basins);
  - (e) structural retrofitting of existing buildings;
  - (f) non-structural retrofitting of existing buildings and facilities (such as bracing of building contents to prevent earthquake damage or the elevation of heating and ventilation systems;
  - (g) safe room construction;
  - (h) infrastructure retrofit;
  - (i) soil stabilization;
  - (j) wildfire mitigation through defensible space for wildfire, application of ignition-resistant construction, and hazardous fuels reduction;
  - (k) post-disaster code enforcement; and
  - (l) 5% Initiative Projects (See more information below)



• **5% Initiative Projects:** These projects provide an opportunity to fund mitigation actions that are consistent with the goals and objectives of the State and local mitigation plans and meet all HMGP program requirements, but for which it may be difficult to conduct a standard BCA to prove cost effectiveness. Up to 5 percent of the total HMGP funds may be set aside by the State to pay for such activities. There must be a reasonable expectation that future damage or loss of life or injury will be reduced or prevented by the activity. Activities that might be funded under the 5% Initiative include:

- (a) the use, evaluation, and application of new, unproven mitigation techniques,
- (b) technologies, methods, procedures, or products;
- (c) equipment and systems for the purpose of warning citizens of impending hazards;
- (d) hazard identification or mapping and related equipment for the implementation of mitigation activities;
- (e) Geographic Information System (GIS) software, hardware, and data acquisition whose primary aim is mitigation;
- (f) public awareness or education campaigns about mitigation; and
- (g) evaluation of model building codes in support of future adoption and/or implementation.

a. **Generator purchase:** In general, permanently installed generators and/or related equipment purchases (e.g., generator hook-ups) are eligible activities **only when**

- a. the generator directly relates to the hazards being mitigated and
- b. is part of a project. For HMGP and PDM, however, the 5% Initiative allows for the stand-alone purchase of permanently installed generators.



**Guidance:** The Plan Maintenance Section of the approved Multi-jurisdictional plan outlines the procedures to follow in the Method, Monitoring, Schedule, Evaluation and Updating the Plan.

- The resources of the New Jersey State Police Mitigation Unit are available for consultation and assistance in the Plan update.

**Funding:** There is no prohibition of FEMA funding plan up-dates **but** there is no guarantee. Requests for FEMA grant funding should be submitted well before the plan expiration to allow for the funding application process, the application review and the actual plan up-date by the County or the consultant. A recommended timetable is to start in March at least two and a half (2.5) years before plan expiration to meet the September application round of funding for the next fiscal year.

*Although this handout has been prepared for Multi-jurisdictional Plan Updates, the information contained is applicable for Single Jurisdiction All Hazards Plan Updates as well.*

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## Multi-Jurisdictional Plan Participation

*The following is most significance to those municipalities that did not participate in the original plan--  
(Taken from the on-line FEMA Local Multi-Hazard Mitigation Planning Guidance (7/1/08, page 21)*

**Multi-Jurisdictional Planning Participation:** A multi-jurisdictional plan, as prepared by regional planning areas, development authorities, counties is acceptable as a local Mitigation Plan. However, those jurisdictions within the planning area that do not participate in its development and adopt the mitigation plan will not be eligible for project grants. Therefore, the local mitigation plan must document how each jurisdiction that is requesting FEMA approval of the plan participated in the planning process.

**Plan Update:** The local jurisdiction is required by 44 CFR §201.6(d)(3) to review and revise its plan, and resubmit it for approval within 5 years in order to continue to be eligible for mitigation project grant funding. The update must include –

- All participating jurisdictions, new or continuing; and
- Jurisdiction that no longer participate in the plan.

If jurisdictional participation has changed since approval of the previous plan, its changes should be discussed in the planning process section of the updated plan.

**Special Considerations:** After a multi-jurisdictional Mitigation Plan has been adopted, and approved by FEMA, additional jurisdictions may wish to become part of the planning process, or “join” the mitigation plan. Additional jurisdictions may be added to an existing, FEMA approved, mitigation plan, only if the conditions below are met (if all three conditions are not met, the jurisdiction may develop its own mitigation plan).

1. The jurisdiction(s) asking to be included is located within the boundaries of, or adjacent to, the area covered by the multi-jurisdictional mitigation plan.
2. The organization that was responsible for preparing and submitting the multi-jurisdictional mitigation plan to the State and FEMA agrees with the addition of the requesting jurisdiction(s) to the mitigation plan.
3. When the multi-jurisdictional plan was developed, the risk assessment included an analysis of the major hazards, specifically the natural hazards that have potential to impact the additional jurisdiction(s).

If these conditions can be met, there are two options that can be used to add additional jurisdictions to a FEMA-approved mitigation plan. Regardless of the option chosen, each jurisdiction joining a multi-hazard planning process and seeking to receive credit from FEMA for an approved mitigation plan must satisfy all of the Local Mitigation Plan requirements identified at 44 CFR §201.6.

**Option 1 – Approved Plan with Additional Annex or Appendix.** This option is best suited to situations in which the multi-jurisdictional mitigation plan has been recently approved by FEMA and the majority of the mitigation plan’s five-year lifespan remains. In these cases, the jurisdictions that participated in the multi-jurisdictional planning process would not be required to take any action. Plan content specific to any new jurisdiction is included in a new annex or appendix to the existing mitigation plan, and no other changes are made to the previously approved mitigation plan.

The following actions must be taken to add new jurisdictions to the existing multi-jurisdictional mitigation plan and enable them to receive approval as part of the mitigation plan.

1. The requesting jurisdiction(s) must review the multi-jurisdictional hazard analysis and determine if there are any additional hazards that have not been addressed and threaten the jurisdiction(s). If none exist, the jurisdiction(s) must document their review process and state that no additional hazards exist. If the review reveals additional hazards, the jurisdiction(s) must analyze the risks it/they face associated with those hazards and include this analysis in their written appendix to the multi-jurisdictional mitigation plan. The existing risk assessment cannot be resubmitted without this additional documentation.
2. The requesting jurisdiction(s) must document agreement with the stated mitigation goals of the multi-jurisdictional mitigation plan. Additional goals specific to the requesting jurisdiction may be added. Each additional jurisdiction must also develop a list of proposed mitigation actions appropriate for that jurisdiction. These can include the common actions outlined in the multi-jurisdictional mitigation plan, but must include specific mitigation actions for each profiled hazard the jurisdiction itself.
3. The requesting jurisdiction(s) must document the involvement of both the general public and the local government in the planning process in accordance with 44 CFR § The level of participation in the multi-jurisdictional mitigation plan must be consistent for the additional jurisdictions.
4. The annex or appendix, along with the multi-jurisdictional mitigation plan, and a letter of concurrence from the agency or organization responsible for the mitigation plan, must be submitted to the State for formal review. When the State finds the mitigation plan approvable, it will forward it to FEMA. When FEMA's review finds the mitigation plan "approvable pending adoption," the new jurisdiction can formally adopt the full mitigation plan and its jurisdictional-specific annex or appendix and submit the mitigation plan in final form through the State to FEMA for approval.

The mitigation plan approval date for the added jurisdiction(s) will continue to be the date given by FEMA for the multi-jurisdictional mitigation plan. This means that the additional jurisdictions will have less than the entire 5-year plan approval window before they will need to engage in the required update for the full multi-jurisdictional mitigation plan.

**Option 2 – Revise and Update Full Plan.** This option is best suited to situations in which the addition of new jurisdictions to the multi-jurisdictional mitigation plan is occurring far enough along in the five-year lifespan of the original mitigation plan that a full review and revision will begin in the very near future. In these cases, the responsible agency or jurisdiction for the mitigation plan determines that it is an appropriate time for the mitigation plan update process to begin, and the new jurisdiction(s) can participate in a mitigation plan update with the original jurisdictions.

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**NJOEM Advice and Guidance:** In order to establish FEMA eligibility to receive disaster mitigation funding, non-participating municipalities should:

- Reconsider your local participation:
  1. Reference the full version detailing plan participation as found on-line at the FEMA website at Local Multi-Hazard Mitigation Planning Guidance (dated July 1, 2008) pages 21-23.
  2. Understand the limitations and advantages of plan participation. Reference is made to the NJOEM Handout 25 that outlines the consequences on non-participation.
- Start the Plan Amendment process by contacting the County OEM Coordinator

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Fieldsboro Borough Municipal Building 18 Washington Street Fieldsboro, NJ 08505
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<b>Gloucester County</b>
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Newfield Borough PO Box 856 Newfield, NJ 08344
Westville Borough 1035 Broadway Westville, NJ 08093-1493
<b>Monmouth County</b>
Roosevelt Borough PO Box 128 Roosevelt, NJ 08555



# NJOEM Planning Tool Information

## As required by the NJ All Hazards 2011 Plan

**Section 6 of the New Jersey State Hazard Mitigation Plan includes three Additional State Requirements to Plan review.**

The Additional State Requirements contained in Section 6 of the 2011 Approved NJ All Hazards Mitigation Plan are in accordance with NJ's interpretation of directives included in 44 CFR Part 201. Justification is included in Section 2 – The Planning Process of the State Plan as posted on the web at <http://www.State.nj.us.njoem>. The following information will be included in the Local Plan and in the Local Hazard Mitigation Plan Review Worksheet (Crosswalk/Tool) include:

**6.3.2.1 Plan's Web Address:** The name and contact information concerning the plan is usually included in Introduction Section of the plan. With all submission for re-certification, NJOEM requires that the plan web address is also included.

CRF Reference: §201.6(b): An open public involvement process in the development of an effective Plan.

**In the Crosswalk:** Inclusion of an "upfront listing" of the local jurisdiction's plan web site address will be increased with easy access to the plan. The web address shall be located on Page 1 of the Crosswalk in Block 1 as illustrated below.

Figure 6.3.2.1-1 - NJOEM Requirement to Include Plan's Web Address

Jurisdiction:	Title of Plan:	Date of Plan and Draft #:
Local Plan submitted by:	Address:	
Title:		
Agency:		
Phone Number:		
<b>The electronic copy of the Plan can be found on the Web at:</b>		

### 6.3.2.2 Identification of Mitigation Projects

**In the Plan:** 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 contained in the original plan; self funded mitigation initiatives as well as past FEMA funded projects should be documented.

CRF Reference: §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 ...

**In the Crosswalk:** For easy cross-reference, a listing of FEMA funded mitigation projects shall be listed as a new Block 5 following the listing of participating jurisdictions in the Crosswalk as illustrated in the matrix below. Supplemental information that covers the who, what, when and how mitigation projects were implemented since Plan adoption should be included as part of Section 6 of the Plan – Prioritization and Implementation of Mitigation Actions.

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Detailed information on each of the required items will be available from NJOEM. Additional information will be posted on the Web and plan developers should check out inquire for any new requirements as they proceed.

The 2011 NJ All Hazards Plan: [www.ready.nj.gov](http://www.ready.nj.gov) – NJOEM – Mitigation – NJ Hazard Mitigation Plan  
 FEMA Local Mitigation Plan Review Guide (October 2011) – Under development will supersede the Blue Book

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 Telephone: (609) 963-6963      Fax: (609) 530-3649      Email: [NJMitigation@gw.njsp.org](mailto:NJMitigation@gw.njsp.org)

Figure 6.3.2.1-2 - NJOEM Requirement to Include Identification of Mitigation projects. Example of reporting of funded and independent mitigation projects

County Name	Type of Mitigation Project	Status (year)		Funding source	Relationship to Plan
		Year Approved/ Active	Year Completed		
My County	Participation in All Hazard Mitigation Plan Update	2011	2013	75,000 Local 225,000 FEMA 300,000 Total	Provided local \$10,000 share of plan update through in-kind.
Main City	Elevation of 6 flood prone residential structures	2009	2010	25,000 Local 75,000 FMA 100,000 Total	In the plan
Any Town	Shelter Improvements including air conditioning and cable connection	2010	2010	Use of local Capital Improvement Funds	Immediate action needed. Not in the plan. Identified after a disaster
Your Town	Storm Water Collection system improvement at Water Road and River Street	2010	2012	75,000 Local 225,000 HMGP 300,000 Total	In the plan as Mill River flood
Your Town	Culvert enlargement improvements at Main Street between 1st and 4th Streets	2008	2010	100,000 Local 300,000 PDM 400,000 Total	Not in the plan.
Center City	LOI - New generator for senior center	2011		15,000 Local 35,000 FEMA 50,000 Total	Not eligible
Center City	LOI - Acquisition of two properties	2011		200,000 Local 600,000 SRL 800,000 Total	Funding now under consideration

### 6.3.2.3 Identification of Local Jurisdiction Mitigation Contacts in Plan Development

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

**In the Plan:** The State of New Jersey requires identification of mitigation plan participants. The sample table below suggests the offices/agencies that should be included in the planning process (from initiation to adoption) and 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. Additional information and samples are included in the NJ All Hazards Plan.

<p><b>Management including Mayor, Administrator, Clerk, Engineer and Attorney</b> - Ties all local programs together. Should be encouraged to participate in the planning process.</p>
<ul style="list-style-type: none"> <li>• <b>Building Code Official</b> - Assures compliance of development incorporating mitigation elements against tornadoes, earthquake, etc.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Emergency Manager</b> - Is the point of contact in the plan development, project selection and application submission</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Fiscal and Budget Officer</b> – Identifies local funding sources for projected projects.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Floodplain Manager</b> - Controls the use and expansion adjacent to flood prone areas.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Land Use Planner</b> - Has familiarity with potential development from the onset of the project and includes zoning, traffic, population growth estimations, park and open space, etc.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Public Works Director</b> - Has the on the ground experience of actual hazard events.</li> </ul>

And, based on Hurricane Irene experiences, “areas of concern” may be developed as additional state requirements:

- For flood control projects (culvert enlargements, drainage, storm-water management, etc.) - what’s happening up-stream, down-stream and in the watershed as a whole. CRF Reference: §201.6(b) and (c)(1):
- Participation of universities, colleges, and municipal utility authorities depend on active participation in the Plan CRF Reference: §201.6(c)(5):
- A new “**Letter of Intent**” indicating FEMA guidance and eligibility has been reviewed when requesting FEMA funds CRF Reference: §201.6(c)(ii and iii):
- Include NFIP information with future flood mitigation applications and strategies based on NFIP information – RL, SRL SD CRF Reference: §201.6(c)(2)(ii)(A)(B) and( C) :
- Outline if the proposed project “appears feasible/eligible” under state and federal permit regulations CRF Reference: §201.6(c)(3):

# New Jersey Presidential Declarations 1955-2010

✓ = County Declared

DR = Disasters EM = Emergencies FM = Fires

The Governor requests a presidential declaration when combined local, county and state resources are insufficient and that the situation is beyond their recovery capabilities.

For disasters declare prior to 1992, county declaration information is not available

Aug-55	Hurricane, floods	41-DR	Nov 74	Severe storms, high winds, high tides	3005-EM
Mar-62	Severe storms, high tides, flooding	124-DR	Jul-75	Heavy rains, high winds, hail, tornadoes	477-DR
Aug-65	Water shortage	205-DR	Aug-76	Severe storms, high winds, flooding	519-DR
Jun-68	Heavy rains, flooding	245-DR	Feb-77	Ice conditions	528-DR
Sep-71	Heavy rains, flooding	310-DR	Oct-80	Water Shortage	3083-EM
Aug-73	Severe storms, flooding	402-DR	Apr-84	Coastal storms, flooding	701-DR
			Oct-85	Hurricane Gloria	749-DR

			Atlantic	Bergen	Burlington	Camden	Cape May	Cumberland	Essex	Gloucester	Hudson	Hunterdon	Mercer	Middlesex	Monmouth	Morris	Ocean	Passaic	Salern	Somerset	Sussex	Union	Warren
Mar-92	Severe coastal storm	936-DR	✓				✓	✓							✓		✓						
Dec-92	Coastal storm, high tides, heavy rain, flood	973-DR	✓				✓	✓	✓					✓	✓		✓		✓	✓			✓
Mar-93	Severe Blizzard	3106-EM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Jan-96	Snow, blizzard	1088-DR	✓	✓	✓		✓	✓	✓					✓	✓	✓	✓	✓	✓	✓		✓	✓
Nov-96	Severe flooding	1145-DR		✓		✓					✓		✓							✓			✓
Sep-97	Flooding	1189-DR	✓							✓	✓												
Mar-98	Coastal storm	1206-DR	✓				✓				✓						✓						
Sep-99	Hurricane Floyd	1295-DR							✓			✓		✓		✓		✓		✓			
Sep-99	Hurricane Floyd	3147-EM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sep-99	Hurricane Floyd	3148-EM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Aug-00	Flooding, severe storms, mudslides	1337-DR											✓			✓						✓	
Nov-00	Virus threat	3156-EM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sep-01	Terrorist attack emergency declaration	3169-EM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Jun-02	Double trouble fire	2411-FM															✓						
Mar-03	Snowstorm	3181-EM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sep-03	Power outage	3188-EM		✓					✓		✓							✓					✓
Jul-04	Severe storm, flooding	1530-DR			✓	✓																	
Oct-04	Tropical Depression Ivan	1563-DR										✓	✓										✓
Apr-05	Severe storms and flooding	1588-DR		✓					✓	✓		✓	✓			✓		✓					✓
Sep-05	Hurricane Katrina evacuation	3257-EM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Jul-06	Severe storms and flooding	1653-DR										✓	✓								✓	✓	✓
Apr-07	Severe storms & inland coastal flooding	1694-DR	✓	✓	✓	✓			✓	✓	✓		✓	✓		✓	✓	✓	✓			✓	✓
Apr-07	Warren Grove Fire	2695-FM			✓												✓						
Dec 09	Tropical Storm Ida and a Nor'easter	1867-DR	✓				✓										✓						
Feb 10	Snowstorm	1873-DR	✓		✓		✓	✓		✓							✓		✓				
Mar 10	Severe winter storm and snowstorm	1889 DR	✓		✓		✓	✓	✓	✓									✓				
Apr 10	Sever storms and Flooding	1897-DR	✓	✓			✓		✓	✓			✓	✓		✓		✓		✓			
Feb 11	Severe winter storm and snowstorm	1954-DR		✓	✓		✓				✓		✓	✓	✓	✓	✓	✓		✓			✓
Aug 11	Hurricane Irene	3332-EM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sep 11	Hurricane Irene	4021-DR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sep 11	Flooding	4033-DR						✓		✓									✓				
Oct 11	Tropical Storm Lee	4039-DR										✓	✓					✓			✓		✓
Nov 11	Snow Storm/Power Outage	4048-DR		✓			✓		✓		✓	✓	✓		✓			✓		✓		✓	✓



# Letter of Intent

When FEMA announces that disaster mitigation funds are available, all applicants must submit a “Letter of Intent” to New Jersey Office of Emergency Management prior to the award of a grant. The letter of intent is the first step in the selection of mitigation projects under the following FEMA funding sources:

- **Required** under the Hazard Mitigation Grant Program (HMGP) – funds post disaster mitigation projects.
- **Recommended** as part of the full E-grant application submission under Hazard Mitigation Assistance (HMA).  
 HMA projects are annual pre-disaster mitigation projects awarded after national, competitive review and include:
  - Flood Mitigation Assistance Grant Program
  - Severe Repetitive Loss Grant Program
  - Pre Disaster Mitigation Grant Program
  - Repetitive Flood Claim Grant Program

[www.fema.gov/government/grant/hma/index.shtm](http://www.fema.gov/government/grant/hma/index.shtm)

Eligible Activities for more information refer to the unified guidance referred to above.	H M G P	P D M	F M A	R F C	S R L
1. Mitigation Projects					
Property Acquisition, Demolition, Relocation and Elevation	✓	✓	✓	✓	✓
Dry Floodproofing of Historic Residential Structures	✓	✓	✓	✓	✓
Dry Floodproofing of Non- Residential Structures	✓	✓	✓	✓	
Minor Localized Flood Reduction Projects	✓	✓			
Structural and non-structural retrofitting of existing buildings , safe room construction, soils stabilization, and wildfire mitigation	✓	✓			
Post disaster code enforcement and 5% initiative projects	✓				
2. Hazard Mitigation Planning	✓	✓	✓		
3. Management Costs	✓	✓	✓	✓	✓

The following activities are not eligible as stand-alone activities but are eligible only when included as a functional component of eligible mitigation activities:

- For HMGP and PDM generators and/or related equipment purchase (with some exceptions)
- Real property or easement purchases required for the completion of an eligible mitigation project.
- Studies that are integral to the development and implementation of a mitigation project.

This packet contains:

1. Letter of Intent (LOI)
2. Page 2 covers suggested points of information that should be included in the LOI
3. Score your own project using the sample State Hazard Mitigation Scoring Sheet

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**For more information Contact:** New Jersey Office of Emergency Management, Division of State Police  
 P. O. Box 7068, West Trenton, NJ 08628-0068

**SFC Robert Little, State Hazard Mitigation Officer**

Telephone: (609) 963-6963

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# HAZARD MITIGATION GRANT PROGRAM – LETTER OF INTENT

**Submitted to: SFC Robert Little, NJ State Hazard Mitigation Officer  
Mitigation Unit, New Jersey Office of Emergency Management  
P. O. Box 7068 River Road, West Trenton, NJ 08628**

Phone: (609)-963-6963 Fax: (609)-530-3649 Email: [Lpp4895@gw.njsp.org](mailto:Lpp4895@gw.njsp.org)

<b>Part 1</b>	<p><b>This letter is to notify you that the below intends to participate in the 404 Hazard Mitigation Grant Program which is available under ____ HMA or ____ HMGP Subsequent to the Federal Disaster Declaration FEMA # _____-DR-NJ.</b></p> <p>The following information is furnished in support of this notification:          Name of Applicant/Organization: _____          Point of Contact: _____          Title: _____          Address: _____          Phone: _____ FAX: _____</p>
<b>Part 2</b>	<p><b>Please thoroughly describe the project and benefits on a separate attachment and itemize as follows for each project:</b></p> <ol style="list-style-type: none"> <li>1. Summary title of project and cover letter with contact information.</li> <li>2. Detailed description of the proposed mitigation measure or project and its benefits to the community. If available and where appropriate, include photographs.</li> <li>3. Approximate total cost of the project.</li> <li>4. Location of proposed mitigation measure or project. Include community map identifying project location.</li> <li>5. Additional supporting information – including references to your All Hazards Mitigation Plan.</li> </ol> <p style="text-align: center;"><b>• See page 2 for additional information to be included.</b></p>
<b>Part 3</b>	<p><b>State Review:</b> State Hazard Mitigation Team meeting date _____          HMGP [ <input type="checkbox"/> ] Pending Approval [ <input type="checkbox"/> ] Disapproved</p> <p>I understand that the local share of project funding will be 25% of the total project cost and that we will contribute [ <input type="checkbox"/> ] all or [ <input type="checkbox"/> ] seek funding elsewhere for the matching share of the mitigation project.</p> <p>Signed: _____ Date: _____</p> <p>Title: _____</p> <p>:</p>

## Page 2 of the Letter of Intent

- How does the project provide mitigation?
  - What hazard does the project address.
  - Is it preparedness or maintenance.
- Has the proposal been developed using FEMA program eligibility guidance?
  - **The [Hazard Mitigation Assistance Unified Guidance](#) is available in the FEMA Library.**
- Is the proposal consistent with the mitigation objectives of the approved local plan?
- Does the project contain specific information such as: If the project is:
  - A roadway improvement project - how long is it?
  - An excavation or drainage ditch – how deep is it ?
  - An elevation – how high is it?
  - Protection of homes – how many will benefit ?
  - Property acquisition – how many in total will be acquired ?
  - An education program – who is the audience and what is the message?
  - A publication – how many will be printed and how will they be distributed?
- Does the project involve environmental issues such as site remediation, hazardous materials, etc.? Have you contacted the appropriate agencies?
- Are there any historic site issues connected with the project?
- If the project involves “private property” how is the public served and what are the public benefits?
- Regarding funding:
  - Have you considered how will your share of the project be paid for?
  - Have other sources of funding been identified?
  - Was application made for funding from another source?
  - What is the status of any pending request?
  - Have you developed a benefit to cost analysis?
- Regarding NFIP:
  - Is the applicant participating in CRS.
  - Does the project involve SRL properties? How many?
  - Does the project involve RFC properties? How many?
- Regarding maintenance:
  - Could the problem have been resolved through maintenance?
  - Was the “project” maintained and is now in “working order” and if so, then how will risks be reduced?
- How is the project unique? Describe what makes it stand out from others.

# Score your Project using the Sample State Hazard Mitigation Team Scoring Sheet For Mitigation Project Priority

Annual FEMA funding programs will be scored and ranked for funding using an impartial scoring similar to the following:

General Application Information	Points	Score	
Is this project <b>specifically identified</b> in an All Hazards Plan?	50		
<b>OR</b> – Is this a <b>generic</b> type of project identified in the applicants plan?	30		
Was the local plan FEMA <b>prior approved</b> to the declaration (for HMGP)?	10		
Is the project <b>in the declared disaster</b> area (for HMGP)?	20		
Is the project in a <b>CRS</b> community?	20		<b>Unit Total</b>

Environmental	Points	Score	
Is the project <b>eligible</b> for a Categorical Exclusion (CATEX)?	5		
Is the project an <b>All Hazards Plan or Plan Update</b> (no Benefit/Cost required)?	5		
Is the project identified as a “set aside fundable” project (no Benefit/Cost required)?	5		
Has a “ <b>positive</b> ” Benefit/Cost study been provided	10		
Has a “ <b>weak</b> ” Benefit/Cost study been provided (no back up-no documentation)?	- 5		
Is a Benefit/Cost <b>analysis</b> required but not provided?	- 10		
Has an <b>engineering</b> study been provided – score on a scale of 1-20?	20		<b>Unit Total</b>

State Strategy	Points	Score	
Is the structure on the <b>Severe Repetitive Loss</b> list?	50		
Is the structure on the <b>Repetitive Loss</b> list?	30		
Is the structure <b>within a floodplain</b> ?	5		
Is the project an <b>acquisition or elevation</b> ?	10		
Is the project <b>flood water management</b> ?	7		
Is the project a <b>retrofit</b> project?	5		
Is the project a <b>warning and information</b> systems project?	5		
Does the project have <b>outstanding or unique</b> features	10		<b>Unit Total</b>

<b>Total Points Scored</b>	
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# RiskMAP and Mitigation Plan Development

RiskMAP means Risk Mapping, Assessment and Planning. It is the second phase of the FEMA Map Modernization program. Full and complete information on the program can be found on the FEMA website – [www.FEMA.gov](http://www.FEMA.gov).

FEMA's flood maps are an essential tools for flood hazard mitigation. These maps are used in the private and public sectors, in the following ways:

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

The first phase of Map Mod (DFIRM – Digital Flood Insurance Maps) will provide at its completion:

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

## Things you need to know as a Hazard Mitigation Plan Author/Developer

- **DFIRM Status in New Jersey as of July 2011:**

County(s)	Status
Bergen, , Camden, Essex, Gloucester, Hudson, Hunterdon, Middlesex, Monmouth, , Ocean, Passaic, Somerset, Sussex, Union, and Warren	Adopted and in force (14)
Burlington, Mercer and Morris	Preliminary (3)
Atlantic, Cape May, Cumberland and Salem	To be scheduled (4)

"A Nation Prepared" is FEMA's vision and its mission is to lead America to prepare for, prevent, respond to, and recover from disasters. Risk MAP clearly helps ensure that both the Nation, as well as individual communities, are prepared for future floods and other hazard events. With accurate, up to date flood hazard data, states and communities have the tools to reduce future flood losses. FEMA has identified 6 strategic goals for the next 5 years (2016) as follows:

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

- **Status of Mitigation Planning in New Jersey**

Approval/Re Approval Year	Counties/Municipalities	
2012 (1)	Ocean	
2013 (4)	Bergen, Burlington, Essex, Somerset	Trenton
2014 (2)	Hudson, Monmouth	Lambertville
2015 (2)	Morris, Passaic	Elizabeth
2016 (12)	Atlantic, Camden, Cape May, Cumberland, Gloucester, Hunterdon, Mercer, Middlesex, Salem, Sussex, Union, Warren	

- **FEMA is developing a New Plan Review Tool to replace the Crosswalk.**

The New Plan Review Tool will provide an overall quality assessment that

- identifies the strength of each plan,
- documents areas of future improvement, and
- increases emphasis on implementing mitigation actions.

Included in the “Tool” will be a review element that incorporates all available MapMod and RiskMAP information.

More information on “Redesigning the Mitigation Plan Review Process can be found at

<http://www.fema.gov/plan/mitplanning/index.shtm>

When designing and redesigning your Hazard Mitigation Plan you should be aware of the FEMA improvements that are on the horizon:

- DFIRM and RiskMAP status
- Hazard Mitigation update deadline
- New FEMA Plan Review Tool requirements

Also, Section 6.3.2 Additional State Requirements to the Crosswalk in the current 2011 New Jersey State Hazard Mitigation Plan three (3) items are now required. They are:

1. Include the web address of your plan as part of the initial Crosswalk/Review Tool identification block.
2. Identification of mitigation projects – both FEMA funded and independently completed – that have been accomplished. This listing should follow the list of participating jurisdictions.
3. In the Section of the Plan that describes your planning process, the local plan stakeholder must be notified of the development of the plan. Participants including the building code official, the emergency manager, the fiscal and budget officer, floodplain manager, land use planner, municipal administrator or manager or county executive, and the public works director should be encouraged to contribute to both the development of the plan and into their operating programs.

**For more information Contact:** New Jersey Office of Emergency Management, Division of State Police  
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# FACT SHEET

## Universities, Colleges and Authorities

Each year natural disasters cause havoc in New Jersey by disrupting both the delivery of services and the continuity of operations. FEMA may offer a funding opportunity to resolve some of those issues.

Eligibility for FEMA Hazard Mitigation Assistance funding as a local government (sub- applicant) is defined as a county, municipality, city, town, township, local public authority, school district, special district, intrastate district, regional or interstate government entity, or agency or instrumentality of a local government.

**Mitigation is defined as** sustained action taken to reduce or eliminate the long-term risk to human life and property from natural or manmade hazards and their effects. Note that this emphasis on long-term risks distinguishes mitigation from actions geared primarily to maintenance, emergency preparedness and shorter recovery

### FEMA mitigation funding programs include:

FEMA Mitigation Program	Cost Sharing Federal /Local	Description
Hazard Mitigation Grant Program (HMGP)	75/25	HMGP funds are available only after a Presidential declared disaster has been declared. Funding is based on the severity of the event. A disaster mitigation plan is required.
Pre Disaster Mitigation (PDM)	75/25	FMA funds are based on annual appropriations. Funds are available to communities with an approved FMA plan.
Flood Mitigation Assistance (FMA)	75/25	PDM funds are based on competitive annual appropriations. Funds are available to communities with an approved PDM plan.
Repetitive Flood Loss (RFL)	100/0	The RFC and SRL grant programs are designed to reduce or eliminate the long-term risk of flooding to NFIP-insured structures, and thereby reduce the number of claims paid from the National Flood Insurance Fund (NFIF).
Severe Repetitive Loss (SRL)	90/10	

### Summary of eligible mitigation projects include:

- Property acquisition, demolition, relocation, reconstruction and/or elevation
- Dry Flood-proofing of historic residential structures and flood-proofing of non residential structures
- Minor localized flood reduction projects
- Structural and non-structural retrofitting of existing buildings and facilities
- Safe room construction
- Infrastructure retrofit
- Soil stabilization
- Wildfire mitigation
- Hazard mitigation planning

## Universities and Colleges

1. There are over sixty land holding universities and colleges in the State of New Jersey. Only one (1) university is now eligible for FEMA funding participation.
2. A private or public university or college is eligible for FEMA Hazard Mitigation funding to:
  - develop a hazard mitigation plan or
  - receive grant funds for an eligible mitigation project.
3. A university or college must have:
  - its own plan developed as a single jurisdictional hazard mitigation plan using available FEMA guidance for the development of Disaster Resistance Universities (Guidelines are available in the FEMA.gov website) or
  - must be an active participant in a multi-jurisdictional to maintain its eligibility. Active participation is described in detail in the on-line guidance for Hazard Mitigation Plan development. Currently there are 20 eligible counties with approved plans and soon all 21 will be covered.
4. The mitigation plan describes the natural hazard risks that may impact the university or college and goes on to develop those steps to put into place policies and actions that will reduce future impacts. Those policies and actions are referred to in the Mitigation Plan as strategies.
5. Damages caused by floods, winds, earthquakes and wildfires have been addressed in all of the New Jersey approved county multi-jurisdiction plans.

## Municipal Authorities

1. There are 100 public utility, sewerage, water and housing authorities in the State of New Jersey. Only 1 special district and 4 authorities are currently eligible for FEMA funding participation.
2. A regional or municipal utility authority, sewer authority, or water district is eligible for FEMA Hazard Mitigation funding to:
  - develop a hazard mitigation plan or
  - to receive grant funds for an eligible project.
3. A regional or municipal utility authority, sewer authority, or water district must have:
  - its own plan, developed as a single jurisdictional hazard mitigation plan using available FEMA guidance for the development of Disaster Resistance Universities (Guidelines are available in the FEMA.gov website) or
  - must be an active participant in a multi-jurisdictional to maintain its eligibility. Active participation is described in detail in the on-line guidance for Hazard Mitigation Plan development. Currently there are 20 eligible counties with approved plans and soon all 21 will be covered.
4. The mitigation plan describes the natural hazard risks that may impact the authority and goes on to develop those steps to put into place policies and actions that will reduce future impacts. Those policies and actions are referred to in the Mitigation Plan as strategies.
5. Damages caused by floods, winds, earthquakes and wildfires have been addressed in most of the New Jersey approved county multi-jurisdiction plans.

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The New Jersey Office of Emergency Management encourages the participation of all universities, colleges and authorities.

**Simply stated:** If you are not listed in your local mitigation plan as an active participant you are not eligible for funding.

### **For More Information, Contact:**

Lt. Robert Little, State Hazard Mitigation Officer  
Box 7068, River Road, West Trenton, NJ 08628

**Phone:** 609-963-6963 – **Email:** [NJMitigation@gw.njsp.org](mailto:NJMitigation@gw.njsp.org)



# Plans, Codes and Ordinances

This listing was modified from the material that first appeared in the Atlantic County Plan

- **Building Code:** Building codes regulate construction standards and are developed for specific geographic areas of the country. They consider the type, frequency, and intensity of hazards present in the region. Structures built to applicable building codes are inherently resistant to many hazards such as strong winds, floods, and earthquakes.
- **Capital Improvement Plan:** Capital Improvement Plans schedule the capital spending and investments necessary for public improvements such as schools, transportation infrastructure, libraries, and fire services. These plans can serve as an important mechanism to reduce growth in identified hazard areas through limited public spending and can be used as a to develop a match for mitigation projects.
- **Comprehensive Plan:** A comprehensive plan is a document which illustrates the overall vision and goals of a community. It serves as a guide for the community's future and often includes anticipated demographics, land use, transportation, and actions to achieve desired goals. Integrating mitigation concepts and policies into a comprehensive plan provides a means for implementing initiatives through legal frameworks and enhances the opportunity to reduce the risk posed by hazard events.
- **Economic Development Plan:** Economic development plans offer a comprehensive overview of the local or regional economic state, establish policies to guide economic growth, and include strategies, projects, and initiatives to improve the economy in the future. Economic development plans, similar to capital improvement plans, offer an opportunity to reduce development in hazard prone areas by encouraging economic growth in more appropriate areas that are less susceptible to hazard events.
- **Emergency Response Plan:** Emergency response plans provide an opportunity for local governments to anticipate an emergency and plan the response accordingly. In the event of an emergency, a previously established emergency response plan can reduce adverse impacts, as the responsibilities and means by which resources are deployed has been previously determined.
- **Floodplain Ordinance:** To qualify for the sale of federally-subsidized flood insurance a community must adopt flood plain management regulations, satisfying minimum the criteria designed to reduce or avoid future flood, mudslide (i.e., mudflow) or flood-related erosion damages. These regulations must include effective enforcement provisions, including the appointment of a Floodplain Administrator.
- **Growth Management Ordinance:** Growth management ordinances are enacted as a means to control the location, amount, and type of development in accordance with the larger planning goals of the jurisdiction. These ordinances often designate the areas in which certain types of development is limited and encourage the protection of open space for reasons such as environmental protection, recreation, farmland preservation, or to maintain the integrity of certain types of historic and cultural resources. The State Policies for Comprehensive Planning given in the New Jersey State Development and Redevelopment Plan (March 2001) encourages coordination of growth management plans and policies with hazard mitigation and emergency response planning.
- **Hazard Mitigation Plan:** Mitigation Plans form the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage. The planning process is as important as the plan itself. It creates a framework for risk-based decision making to reduce damages to lives, property, and the economy from future disasters. **Hazard mitigation is sustained action taken to reduce or eliminate long-term risk to people and their property from hazards**



- **Open Space and Recreation Plan:** An OSRP articulates a local government's vision of open space and recreation. It establishes criteria for the protection and preservation of open space and recreation opportunities. The purpose of an OSRP is to provide a framework for implementation. Through an OSRP, communities = identify and examine open space and recreation resources important ways to protect and enjoy them.
- **Post-Disaster Recovery Ordinance/Plans:** Post-disaster recovery ordinances are often produced in conjunction with post-disaster recovery plans. The ordinances are enacted after a hazard event to guide recovery and redevelopment in order to reduce future damages and mitigate repetitive loss. They identify the members of the recovery organization and the operations of the organization, how the recovery organization will interact with other agency and departments, and identify provisions that may be needed in a post-disaster situation. A post-disaster recovery plan guides the physical, social, environmental, capital improvements and economic recovery and reconstruction procedures after a disaster. Hazard mitigation principles are often incorporated into post-disaster recovery plans in order to reduce repetitive disaster losses.
- **Real Estate Disclosure Ordinance:** A real estate disclosure ordinance requires individuals selling real estate to inform potential buyers of the hazards to which the property and/or structure is vulnerable prior to the sale. Such a requirement ensures that the new property owner is aware of the hazards to which the property is at risk of damage.
- **Site Plan Review Requirements:** Site plan review requirements are used to evaluate proposed development prior to construction. An illustration of the proposed work, including its location, dimensions, existing and proposed buildings, drainage and site access elevations, and many other elements are often included in the site plan review requirements. The site plan reviews offer an opportunity to incorporate mitigation principles, such as ensuring that the proposed development is not in an identified hazard area and that appropriate setbacks are included
- **Special Purpose Ordinance:** A special purpose ordinance is a form of zoning in which specific standards dependent upon the special purpose or use must be met. For example, many special purpose ordinances include basic development requirements such as setbacks and elevations. The special purpose ordinance is a useful mitigation technique particularly when implemented to reduce damages associated with flooding and coastal erosion. Special purpose ordinances identified by jurisdictions include stormwater management, erosion, floodplain, steep slope, setback ordinances and standards for roads, bridges and drainage structures.
- **Subdivision Ordinance:** Subdivision ordinances offer an opportunity to account for natural hazards prior to the development of land as they formulate regulations when the land is subdivided. Subdivision design that incorporates mitigation principles can reduce the exposure of future development to hazard events
- **Zoning Ordinance:** Zoning is a useful tool to consider when developing a mitigation strategy. It can be used to restrict new development, require low-density development, and designate specific uses (e.g. recreational) in the hazard prone areas. Private property rights must be considered, but enacting a zoning ordinance can reduce or potentially eliminate damages from future hazard events.

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# New FEMA Hazard Mitigation Plan Guidance

For more information Contact: New Jersey Office of Emergency Management, Division of State Police  
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FEMA announced new mitigation plan development guidance and review documents that will be required in October 2012 as updated local mitigation plans are reviewed. Plan developers should take into account this new guidance as new plans are being developed. FEMA notes that the neither the law (Stafford Act<sup>1</sup>) nor the regulations (CFR 44 Part 201) have changed.

<sup>1</sup>Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended, 42 U.S.C. 5165, and the National Flood Insurance Act of 1968, as amended, 42 U.S.C. 4001 et seq., 44 Code of Federal Regulations (CFR) Part 201.

The new *Local Mitigation Planning Handbook* is under development and once issued, the *Plan Review Guide* and *Planning Handbook* will be available at the FEMA.gov website and will take the place of the *Local Multi-Hazard Mitigation Planning Guidance* (also known as the “Blue Book” and Crosswalk review).

## Comparing the (NEW) Local Mitigation Plan Review Tool Regulation Checklist To the (OLD) Local Mitigation Plan Review Crosswalk (Section by Section)

NEW - Regulation Checklist (44 CFR §201.6 Local Mitigation Plans)	OLD Crosswalk Reference
<b>ELEMENT A - PLANNING PROCESS</b>	
A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	2A, 3A, 4A, 4B
A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	4D
A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))	4C
A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))	4E
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))	20A
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	18A, 18B, 18C
<b>ELEMENT A CHANGES FROM THE CROSSWALK</b>	
<ul style="list-style-type: none"> <li>A2 clarifies the interpretation of the CFR to require agencies involved with hazard mitigation and those with authority to regulate development to be involved in the process.</li> <li>A5 and A6 moves the Plan Maintenance requirements into the Planning Process element.</li> </ul>	
<b>ELEMENT B - HAZARD IDENTIFICATION AND RISK ASSESSMENT</b>	
B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))	5A, 6A, 6B, 12A
B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))	6C, 6D, 12A
B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	7A, 7B, 12A
B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))	8A

<b>ELEMENT B CHANGES FROM THE CROSSWALK</b>	
<ul style="list-style-type: none"> <li>• B1 combines the type, location, and extent requirements.</li> <li>• B2 combines the previous occurrence and probability requirements.</li> <li>• B3 clarifies the interpretation of how each jurisdiction must describe their vulnerability.</li> </ul>	
<b>ELEMENT C - MITIGATION STRATEGY</b>	
C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))	Mitigation Strategy heading
C2. Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))	15A, 15B
C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))	13A
C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	14A, 14B, 14C, 17A
C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	16A, 16B, 16C
C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))	19B
<b>ELEMENT C CHANGES FROM THE CROSSWALK</b>	
<ul style="list-style-type: none"> <li>• C1 includes the specific CFR language for the capabilities requirement.</li> <li>• C2 removes the requirement for specific actions for NFIP continued compliance in the mitigation strategy.</li> <li>• C6 moves the integration requirement in the mitigation strategy element.</li> </ul>	
<b>ELEMENT D - PLAN REVIEW, EVALUATION, AND IMPLEMENTATION (applicable to plan updates only)</b>	
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))	11A
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))	16D, 17B
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))	16D, 17B
<b>ELEMENT D CHANGES FROM THE CROSSWALK</b>	
D1 – D3 clarify interpretations of existing requirements.	
<b>ELEMENT E - PLAN ADOPTION</b>	
E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))	1A, 1B
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))	2B, 2C
<b>ELEMENT E CHANGES FROM THE CROSSWALK</b>	
None	
<b>DELETED ELEMENTS FROM CROSSWALK</b>	
<ul style="list-style-type: none"> <li>• Update requirements were replaced with Element D in order to be more aligned with the CFR</li> </ul>	3B, 4F, 19C
<ul style="list-style-type: none"> <li>• Sub-element "shoulds" were removed to be more aligned with the CFR.</li> </ul>	9A, 9B, 10A, 10B, 19A

The Old Crosswalk and the New Plan Review Tool act as the Hazard Mitigation Plan's final exam. The elements should be addressed as suggested in either of the guidance documents.



# Elevation

## PROCEDURES FOR DEVELOPING SCOPES OF WORK FOR THE ELEVATION OF FLOODPRONE STRUCTURES

This NJOEM fact sheet summarizes information found on the FEMA.gov web site using the search function for “elevation of floodprone structures” The 2005 FEMA document contains information on procedures and includes sample supporting data. The scope of work and is outlined below.

1. Purpose
2. Developing the scope of work for an elevation project
  - 2.1 Step 1: Obtain Basic Pproject Information
  - 2.2 Step 2: Gather Hazard Information for the Project Area
    - 2.2.1 NFIP Flood Hazard Data
    - 2.2.2 Flood History
  - 2.3 Step 3: Prepare a Property Inventory
  - 2.4 Step 4: Develop Alternative Solutions to the Problem
  - 2.5 Step 5: Establish a Method for Determining Building Values
  - 2.6 Step 6: Prepare a Benefit-Cost Analysis
    - 2.6.1 Using FEMA’s BCA Modules
    - 2.6.2 Preparing the BCA
      - 2.6.2.1 Benefits
      - 2.6.2.2 Project Costs
    - 2.6.3 Cost Effectiveness
  - 2.7 Step 7 Prepare a Scope of Work for the Project
    - 2.7.1 Prioritization and Preparation
    - 2.7.2 Property Elevation
    - 2.7.3 Elevation Process
  - 2.8 Step 8: Prepare a Cost Estimate and Schedule
    - 2.8.1 Cost Estimate
    - 2.8.2 Schedule
  - 2.9 Step 9: Consider all Environmental and Historic Preservation Impacts
    - 2.9.1 National Environmental Protection Act (NEPA)
    - 2.9.2 Historic Properties: Structures
    - 2.9.3 Historic Properties: Archaeological Resources and Historic Sites
    - 2.9.4 Endangered Species and Biological Resources
    - 2.9.5 Clean Water Act and Protection of Wetlands
    - 2.9.6 Floodplain Management
    - 2.9.7 Coastal Zone Management Act
    - 2.9.8 Coastal Barrier Resources Act
    - 2.9.9 Hazardous and Toxic Materials
    - 2.9.10 Effects on Minority and Low-income Populations
    - 2.9.11 Land Use and Socioeconomic Effects

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# Incorporating Mitigation into Planning Mechanisms

A sample of action items in support of mitigation goals that will bring the Plan to life.

Jurisdiction	How Mitigation will be incorporated
<b>Ideal County</b>  First year  Second Year  Third year  Fourth Year  Fifth year	<ul style="list-style-type: none"> <li>County Mitigation Plan adopted as Appendix to County Emergency Operation Plan (EOP)</li> <li>Capital Improvement Plan funded Hazard Mitigation Strategies as budget allowed.</li> <li>Construction projects evaluated to meet Hazard Mitigation goals and objects to pass 100 year flood flows.</li> <li>Employee handbook and job descriptions updated to include Hazard Mitigation elements and CRS support.</li> <li>Organized and chaired the initial Mitigation Plan monitoring and updating meetings</li> </ul>
	<ul style="list-style-type: none"> <li>Solicit annual plan update information from participating municipalities.</li> <li>Organized and conducted (with FEMA and State experts) training/review for floodplain managers and sub-code officials on criteria for determining substantially damaged structures</li> <li>Organized and chaired the annual Mitigation Plan monitoring and updating meeting.</li> </ul>
	<ul style="list-style-type: none"> <li>Organize County-wide Hazard Mitigation Planning meeting agenda focusing on “next/updated plan” funding.</li> <li>Reported on progress made in accomplishing mitigation goals, strategies and actions</li> </ul>
	<ul style="list-style-type: none"> <li>Incorporated floodplain and RiskMAP products into the County GIS system and coordinate with municipalities.</li> <li>Organized and chaired the annual Mitigation Plan monitoring and updating meeting compiling documented municipal information on the impact of a recent severe geologic, weather or other hazard events.</li> <li>As a follow-up to a listed strategy, conducted a reverse 911 drill tied to emergency evacuation events and other non-mitigation preparedness and recovery activities</li> </ul>
	<ul style="list-style-type: none"> <li>Organized and chaired the annual Mitigation Plan monitoring and updating meeting</li> <li>Analyzed progress made in accomplishing mitigation goals, strategies and actions for next Plan</li> </ul>
<b>Model Municipality</b>  First Year  Second Year  Third year  Fourth Year  Fifth year	<ul style="list-style-type: none"> <li>Initiated discussion on integration of elements of the Hazard Mitigation Plan into the Master Plan.</li> <li>Reviewed municipal budget to identify funding sources for implementing identified hazard mitigation actions.</li> <li>Incorporated available RiskMAP data and actions under targeted to achieve greater CRS ranking</li> <li>Participated in the initial Mitigation Plan monitoring and updating meeting</li> <li>Amended the Zoning Ordinance to remove low income housing from the floodplain.</li> </ul>
	<ul style="list-style-type: none"> <li>Set agenda to incorporate Hazard Mitigation Actions into daily operations, plans, codes and ordinances</li> <li>Develop details regarding the proposed mitigation strategy projects listed in the Plan</li> <li>Reviewed current floodplain information (DFIRM/ RiskMAP) for incorporation into the City ordinance.</li> <li>Participated in the annual Mitigation Plan monitoring and updating meeting</li> </ul>
	<ul style="list-style-type: none"> <li>Documented the impact of a recent severe geologic, weather and other hazard event,</li> <li>Participated in the annual Mitigation Plan monitoring and updating meeting</li> <li>Issued updated information as part of public outreach actions</li> </ul>
	<ul style="list-style-type: none"> <li>Use the Hazard Mitigation Plan as a resource in the municipal Wildfire Fire Plan</li> <li>Participated in the annual Mitigation Plan monitoring and updating meeting including:               <ul style="list-style-type: none"> <li>accomplished actions including i.e., acquisition of flood prone properties using local open space funds,</li> <li>completed drainage improvement on River Road,</li> <li>PDM FEMA grant funding applications, and local self-funding mitigation projects.</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Worked closely with the local school district on hazard mitigation/community service programs that can be implemented as a joint project with the other agencies.</li> <li>Participated in the annual Mitigation Plan monitoring and updating meeting</li> </ul>

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