

Hazard Mitigation Assistance (HMA) for Critical Facilities





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Hazard Mitigation

What is hazard mitigation?

- Hazard mitigation is defined as any ***sustained action*** taken to reduce or eliminate ***long-term risk*** to human life and property from a hazard event.



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Hazard Mitigation Assistance - Available Funding



Hazard Mitigation Grant Program (HMGP)

- Post-disaster program



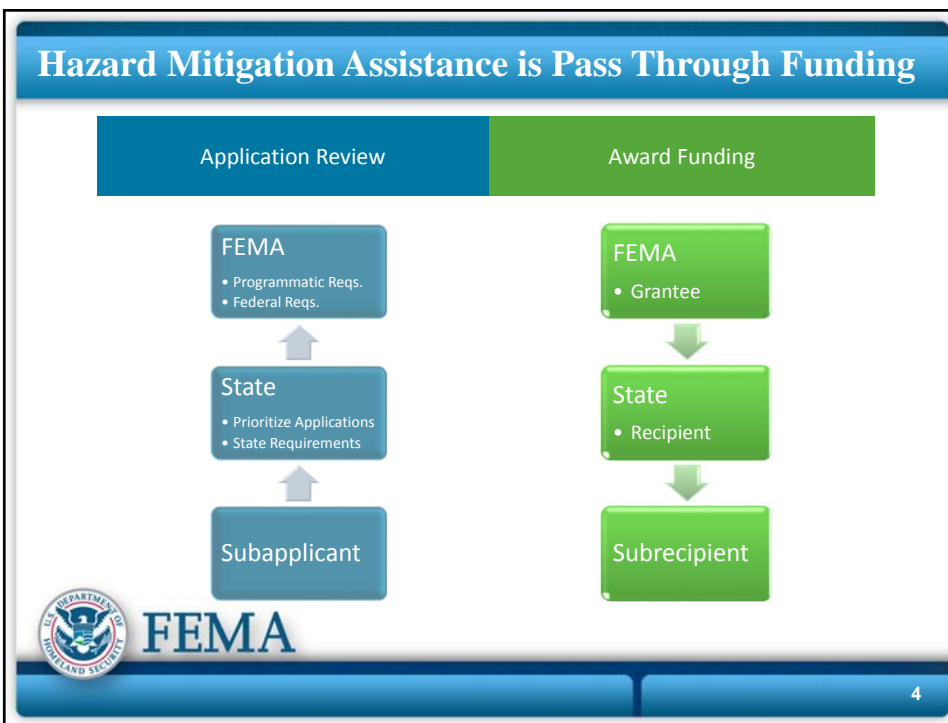
**Pre-Disaster Mitigation (PDM-C)
Flood Mitigation Assistance (FMA)**

- Nationally competitive grants based on annual appropriations



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Hazard Mitigation Grant Program (404 Mitigation)

Grant program initiated by a Presidential disaster declaration to mitigate undamaged areas

- Application Deadline to FEMA is 1-year from the Declaration Date
- Maximum 75% Federal 25% Local Cost Share
- Grant Period of Performance:
36 months after close of Application Deadline
 - *Project must be completed and closed out with FEMA*
- Benefit Cost Ratio 1:1
- Environmental and Historic Preservation (EHP) compliance
- Feasibility review



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Hazard Mitigation Planning Requirement

Private Non Profits (PNPs)

- FEMA approved HM Plan is Not Required

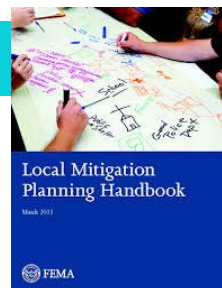
Local Jurisdictions

- FEMA approved HM Plan is Required at time of Award

Contact your State Hazard Mitigation Officer (SHMO) if you are unsure as to your organization's classification

Some variables that can impact classification include:

- Taxing Authority on customers within set boundaries
- Ability to use eminent domain to acquire property
- Board elections by customers



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Sample Utility Projects

Water Utility Providers

- Intertie systems
- Seismic retrofits to facilities and lines
- Emergency generators

Waste Water Treatment

- Seismic retrofits to facilities and lines
- Elevation of lift station electric panels
- Emergency generators

Electric Utility Providers

- Undergrounding/Relocation transmission lines
- Hazard resistant transmission lines (ice, wind, etc.)
- Hazard resistant retrofit of facilities



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DR-4055 Seal Rock Water System Intertie

Seal Rock's water supply provided by City of Toledo Water System who had documented history of interruptions

- HMGP funded intertie to neighboring Newport Water System to provide secondary source
 - FEMA funded \$571,667 of total project cost \$837,983
 - Project included
 - Installation of a buried PVC pipe connecting the two water systems and control valves
 - Pump-station building with monitoring and controlling equipment
 - Emergency generator for backup power to the pump-station



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406 Public Assistance - Mitigation

Public Assistance (PA) typically repairs and replaces

Section 406 of Stafford Act authorizes mitigation:

- Applied **only** to the parts of the facility that were damaged by the disaster
- Must directly reduce the potential of future similar disaster damages
- Cost effective mitigation to **damaged elements** of a facility (*see Disaster Assistance Policy 9526.1*)
- Requires environmental review and compliance under National Environmental Protection Act (NEPA)



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404-406 Integration

406 (Public Assistance) funding addresses **damaged** components

404 (HMGP) funding addresses **undamaged** components

Event	406 (PA)	404 (HMGP)
Wind storm damages powerlines	Underground power lines damaged from declared storm	Underground adjacent undamaged lines
Landslides damages community water line and threatens electric line	Relocate the damaged water line	Relocate undamaged electric line in same trench

*The State must identify potential projects for consideration early in recovery period to allow time for comprehensive and streamlined eligibility review (environmental, feasibility, secure match funding, etc)



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HMA Program Guidance

www.fema.gov/media-library/assets/documents/103279



Hazard Mitigation Assistance Guidance

Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, and Flood Mitigation Assistance Program
February 27, 2015



Federal Emergency Management Agency
Department of Homeland Security
500 Capitol Mall, S.W.
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Additional Resources

Hazard Mitigation Grant Program Homepage

- <https://www.fema.gov/hazard-mitigation-grant-program>

IS-212 Hazard Mitigation Assistance - Online Course

- <https://training.fema.gov/is/courseoverview.aspx?code=IS-212.b>

IS-318 Mitigation Planning – Online Course

- <https://training.fema.gov/is/courseoverview.aspx?code=IS-318>



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FEMA Public Assistance (PA): Eligible Activities

Repairs Damage Caused by Declared Disaster

Emergency Work

- Debris Removal
- Emergency Protective Measures

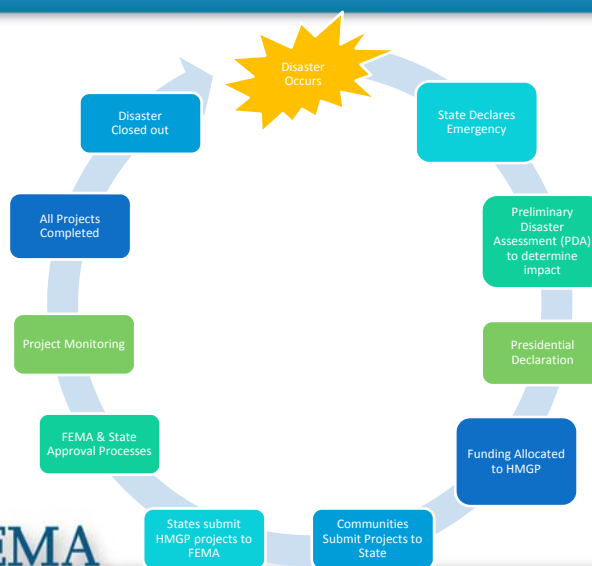
Permanent Work

- Roads and Bridges
- Water Control Facilities
 - Drainage channels, pumping facilities, and some irrigation facilities
 - Levees, dams, and flood control channels (restricted eligibility)
- Buildings and Equipment
- Utilities
- Parks, Recreation Facilities, and Other Facilities



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Major Disaster Declaration Process




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Electric & Waterline Relocation

Damaged Waterline

Undamaged Electric Line



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Benefit Cost Analysis


Benefits of the project must be equal to or greater than the cost of the project (1:1)

- Useful Information
 - Historical record of damages
 - Historical record of service outages

Benefits

Costs

Benefit
Cost
Ratio



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EHP Regulatory Requirements

- National Environmental Policy Act
- National Historic Preservation Act
- Endangered Species Act
- Executive Order 11988
(Floodplain Management)
- Executive Order 11990
(Protection of Wetlands)
- Executive Order 12898
(Environmental Justice)



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404-406 Integration Key Takeaways

- State identification of potential projects for consideration of joint 404 and 406 funding **early in recovery period** to allow time for comprehensive and streamlined eligibility review
- State must set 404-406 as a high priority
- Accurate detailed scopes of work & cost estimates
- Early coordination with Environmental review staff
- Educate yourselves and be your own advocate!



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DR-1683 Timber Elsie Power Line Underground

35kV main transmission line system damaged in winter 2006 wind storm. Utility had a documented history of line damage previous storms.

- HMGP funded undergrounding of undamaged portions of transmission lines
 - FEMA 406 funded approx \$500,140 towards total project cost of approx \$2,055,220
 - Winter Storm damaged 15 miles of electric transmission line
 - 406 PA Mitigation funded undergrounding of all 15 miles of damaged line
 - 404 HMGP funded undergrounding 8.91 miles of connected high risk line



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Ineligible Activities: Projects

- Projects that do not reduce the risk to people, structures, or infrastructure
- Projects that are dependent on another phase of a project in order to be effective
- Projects for which actual physical work has occurred prior to award
- Projects constructing new buildings or facilities
- Water quality infrastructure



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Ineligible Activities: Projects Continued

- Projects that address operation, deferred or future maintenance, repairs, or replacement
- Studies not directly related to design and implementation of a proposed project
- Preparedness measures and response equipment
- Project with the sole purpose of open space acquisition of unimproved land
- Projects that involve land that is contaminated with hazardous waste



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HMGP and PDM Authorities

Robert T. Stafford Disaster and
Emergency Assistance Act

- HMGP: Section 404
- PDM: Section 203

United States Code

- HMGP: Title 42, U.S.C. 5170c
- PDM: Title 42, U.S.C. 5133



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HMA Guidance - Project Type Addendums

- Property Acquisitions
- Wildfire Mitigation
- Safe Rooms
- Mitigation Reconstruction
- Structure Elevation



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Hazard Mitigation Assistance Guidance Addendum

Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, and Flood Mitigation Assistance Program

February 27, 2015

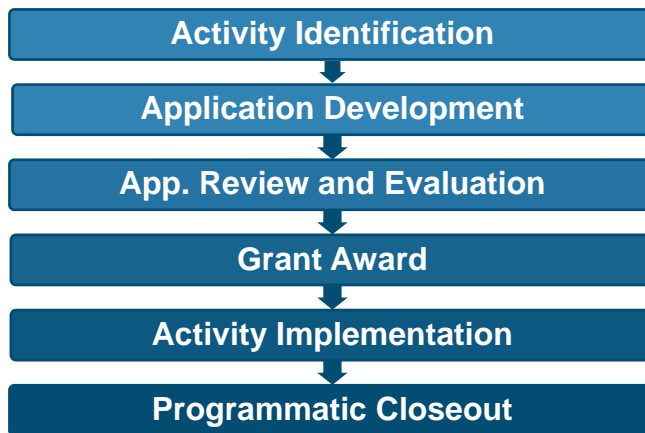


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The Grant Life Cycle




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Subapplication Contents

- Scope of Work
- Schedule
- Cost Estimate
- Feasibility & Effectiveness Documentation
- Benefit-Cost Analysis & Documentation
- EHP Documentation

Subapplication



- Scope of Work
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- EHP Documentation



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HMGP Pre-Award Cost

- Costs incurred after the Disaster Declaration, but prior to the date of the Federal award
 - Development of BCA
 - Collection of EHP data
 - Preparing for design specifications
 - Community outreach & meetings related to the development of the application

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Climate Resilient Mitigation Activities

4 new Project types were introduced September 2015

- **Aquifer Storage and Recovery** – (Drought Mitigation)
 - Capturing water when abundant and store subsurface
- **Floodplain and Stream Restoration**
 - Reestablishment of floodplain function to pre-development
- **Flood Diversion and Storage**
 - Diverting floodwaters into above ground reservoirs, floodplains, wetlands, green infrastructure, or other storage
- **Green Infrastructure**
 - Ecosystem-based approach to replicate a site's pre-development, natural hydrologic function. Use of Low Impact Development (LID) techniques tailored to site.



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Resources

Guidance and Policy

[Hazard Mitigation Assistance \(HMA\) Guidance published February 2015](#)

[2 and 44 Code of Federal Regulations](#)

Project and Planning Ideas

[FEMA P-737 Home Builder's Guide to Construction in Wildfire Zones](#)

[FEMA P-754 Wildfire Hazard Mitigation Handbook for Public Facilities \(P-754\)](#)

[Mitigation Ideas](#)

[Rebuilding After a Wildfire](#)



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FEMA Region 10 Contacts

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Eligible Activities

Eligible Activities	 HAZARD MITIGATION GRANT PROGRAM	 PRE-DISASTER MITIGATION	 FLOOD MITIGATION ASSISTANCE
	1. Mitigation Projects	✓	✓
Property Acquisition & Structure Demolition	✓	✓	✓
Property Acquisition & Structure Relocation	✓	✓	✓
Structure Elevation	✓	✓	✓
Mitigation Reconstruction	✓	✓	✓
Dry Floodproofing of Historic Residential Structures	✓	✓	✓
Dry Floodproofing of Non-Residential Structures	✓	✓	✓
Minor Localized Flood Reduction Projects	✓	✓	✓
Structural Retrofitting of Existing Buildings	✓	✓	✓
Non-Structural Retrofitting of Existing Bld. & Facilities	✓	✓	✓



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Eligible Activities *Continued*

	 HAZARD MITIGATION GRANT PROGRAM	 PRE-DISASTER MITIGATION	 FLOOD MITIGATION ASSISTANCE
1. Mitigation Projects	✓	✓	✓
Safe Room Construction	✓	✓	✗
Infrastructure Retrofit	✓	✓	✓
Soil Stabilization	✓	✓	✓
Wildfire Mitigation	✓	✓	✗
Post-Disaster Code Enforcement	✓	✗	✗
5% Initiative Projects	✓	✗	✗
2. Hazard Mitigation Planning	✓	✓	✓
3. Management Costs	✓	✓	✓




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Pre Disaster Mitigation Grant Program (PDM)

PDM is a nationally competitive grant program

- 75/25 Match
- FY 2015 - \$30 million available for grants
- FY 2016 - \$90 million available for grants
- Agency priorities set which have considerations for:
 - Non-Flood and Flood Mitigation Projects
 - Availability of HMGP Funding
 - Hazard Mitigation Plan Development
 - Climate Resilient Mitigation Activities (CRMA)
- \$4 Million Federal Share Cap





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Flood Mitigation Assistance Program (FMA)

FMA is a nationally competitive grant program designed to reduce National Flood Insurance Program (NFIP) claims

- FY 2015 - \$150 million available for grants
- FY 2016 - \$199 million available for grants
- Agency priorities set which have considerations for:
 - Severe Repetitive Loss (SRL)
 - Substantial Damage
- 75/25 Match
- 100% Federal if 2 or more claims totaling value of structure



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Project Identification Steps

Step 1: Define the problem.

Step 2: Brainstorm potential alternatives.

Step 3: Establish criteria.

Step 4: Evaluate alternatives vs. criteria.

Step 5: Choose preferred alternative.





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Project Scope of Work (SOW)

Detailed description of the proposed project:

- Who is affected?
- Who is performing the work?
- What is the problem to be mitigated?
- What is the proposed project?
- Where is it located?
- How will it be implemented?
- How will it solve the problem?

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SOW – Resources

Procedures for developing SOWs

<http://www.fema.gov/application-development-process>






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Schedule

- Divides the activity into measurable tasks or milestones
- Includes all itemized tasks
- Provides a realistic schedule for each task

Projected time must not exceed the grant performance period

Start Date	Est. Hours	Hours Spent	Hours Remaining	End Date
Task One				
3/15	40	20	20	3/22
3/15	80	40	40	4/2
3/15	80	35	15	4/2
4/3	20	20	0	4/1
4/7	10	2	8	4/9
Task Two				
4/10	80	20	60	4/15
4/16	5	2	3	4/16
Task Three				
4/18	20	0	20	4/23



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Cost Estimate/Budget

- Provides breakdown of costs for the activity
- Identifies contractor costs
- Includes management costs
- Documents sources for estimated costs

Personnel	\$
• Engineer	6,000
• Associate Engineer	2,500
• Inspector	1,500
Subtotal	10,000
Equipment	
Subtotal	20,000
Supplies	
Subtotal	5,000
TOTAL	35,000



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Project Cost Estimate/Budget



- Project Manager
- Contractor
- Engineering/architectural designs
- Construction costs
- Equipment
- Permits/surveys
- Site preparation/restoration
- Contingency costs



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Duplication of Benefits

Funding cannot duplicate funding available from other Federal Agencies.

- A duplication occurs when a beneficiary receives assistance from multiple sources for a cumulative amount that exceeds the total need for a particular recovery purpose.
 - Other Federal funding must be delineated outside of the project budget (ie: Other Federal funding generally cannot be used as match)
 - Insurance payouts for damages can be used towards match.



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BCA Resources

BCA Training:

- Field delivery: Available by request through FEMA's Regional Offices (subject to availability)
- FEMA Course: Offered twice a year at the Emergency Management Institute

BCA Website:

- <http://www.fema.gov/benefit-cost-analysis>

BCA Technical Assistance Helpline:

- (855) 540-6744
- bchelpline@fema.dhs.gov



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Environmental Planning and Historic Preservation

EHP laws have different documentation requirements

Complete project application development and documentation may expedite the EHP review:

- SOW
- Property data
- Photos/maps
- Design/sketch/site plan

! Begin EHP documentation early



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