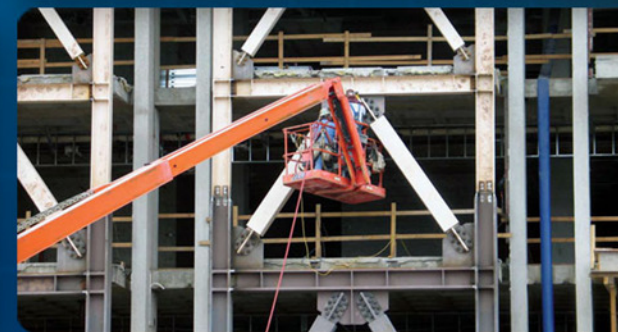


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Hazard Mitigation Assistance Grants



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What is 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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What is Hazard Mitigation?

- ☐ Sandbagging
- ☐ Acquisition
- ☐ Tarps
- ☐ Elevation
- ☐ Hurricane Straps
- ☐ Flood-proofing

**Which activities
are hazard
mitigation?**



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What is Hazard Mitigation?

Reset Question

 Sandbagging

Incorrect

 Acquisition

Correct

 Tarps

Incorrect

 Elevation

Correct

 Hurricane Straps

Correct

 Flood-proofing

Correct

**Which activities
are hazard
mitigation?**



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Funding Programs - HMGP

HMGP

**Hazard
Mitigation Grant
Program**

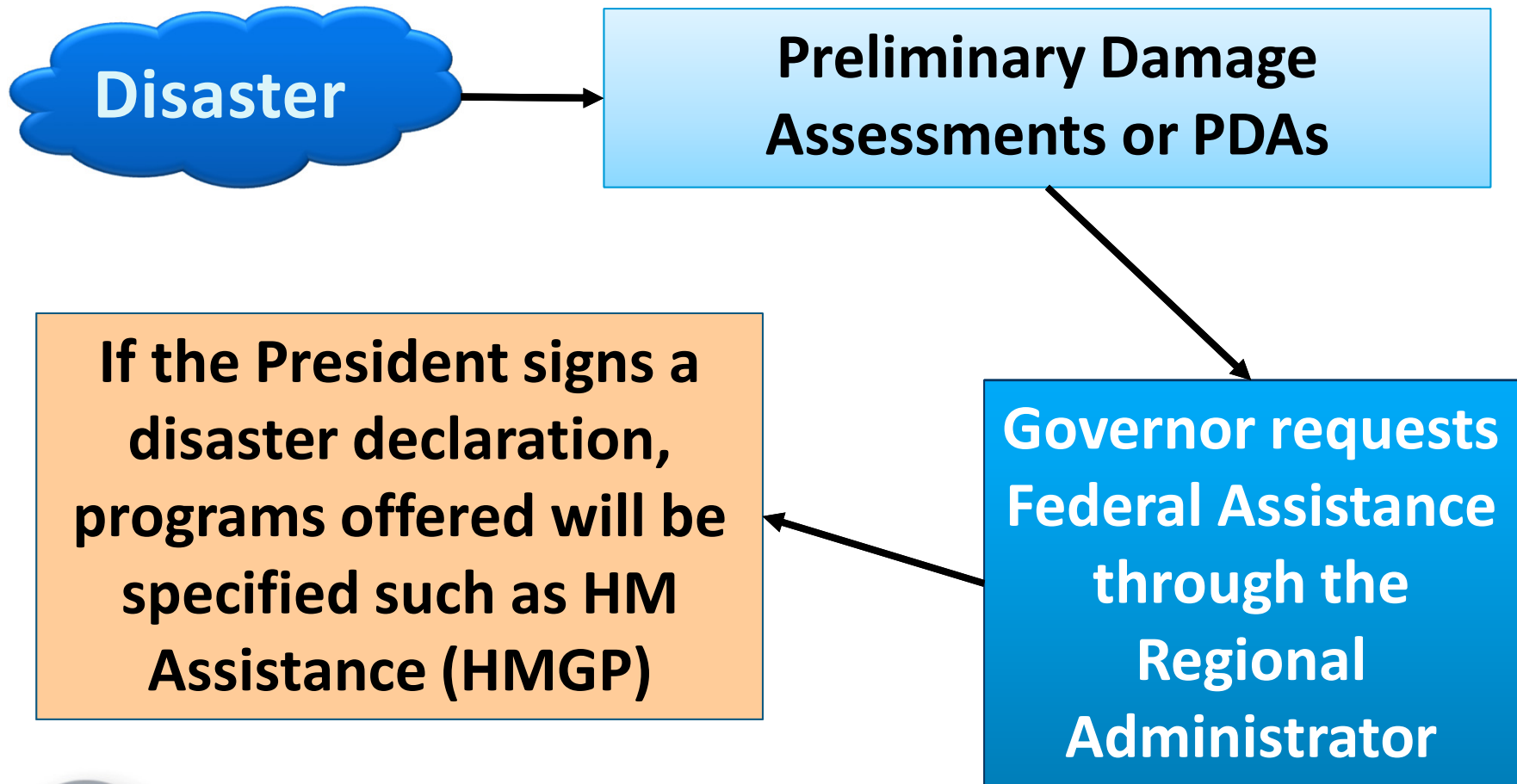


This is a **post-disaster**
program



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Funding Programs - HMGP



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Funding Programs – PDM & FMA

PDM & FMA

**Pre-Disaster
Mitigation &
Flood Mitigation
Assistance
Grant Programs**



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PDM & FMA are available annually, subject to Congressional appropriations

Funding Programs – PDM & FMA

**Congressional
Appropriation**

**Notice of Funds
Opportunity (NOFO)**

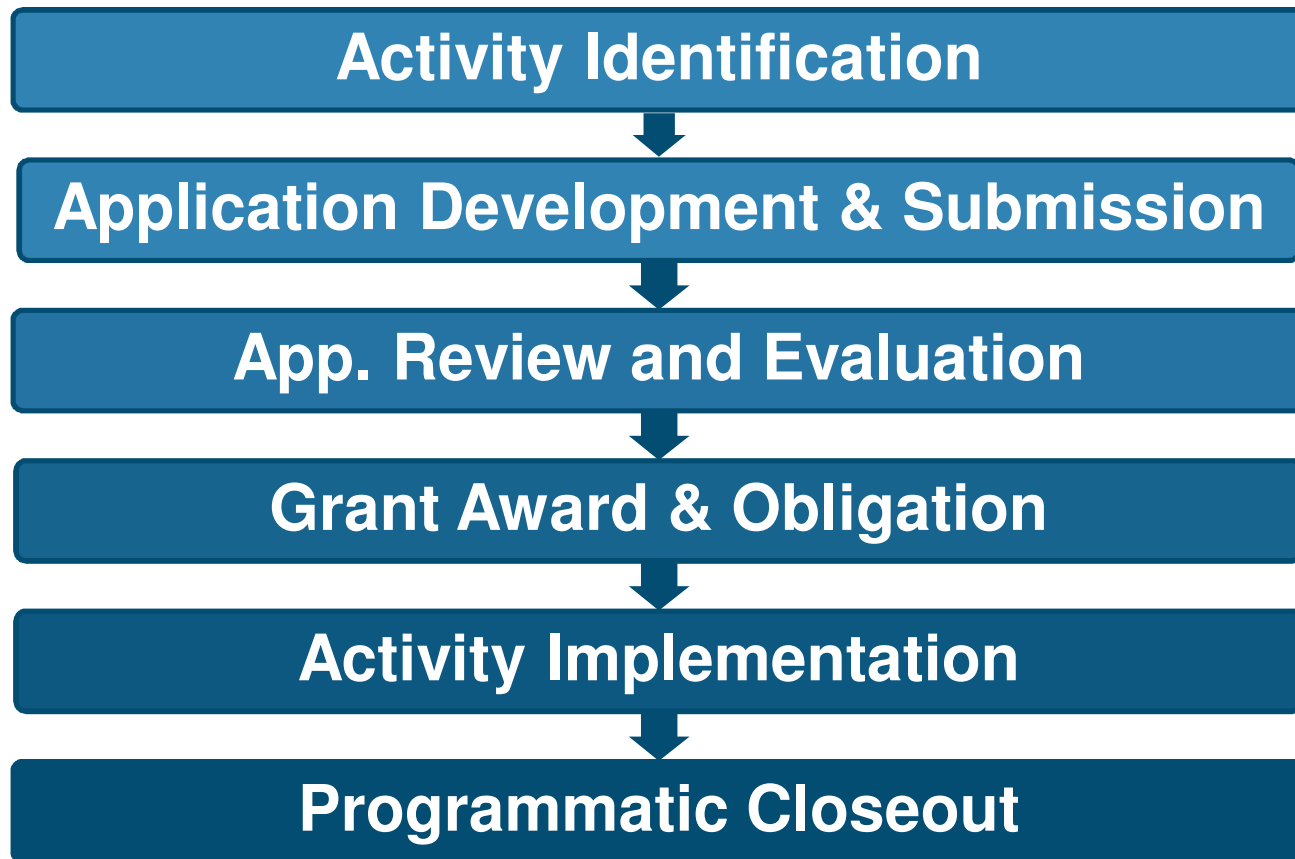
**Applications are
reviewed, projects are
selected, and award
notifications are sent**

**Application Period
Opens - Applicants
submit
applications**



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The Grant Life Cycle



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Application Development

Applicants and Subapplicants

- Develop subapplications
- Submits to State (applicant)



- Coordinates & collects subapplications
- Selects subapplications to include in application
- Submits application to FEMA



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Eligible Applicants/Subapplicants

	 HAZARD MITIGATION GRANT PROGRAM	 PRE-DISASTER MITIGATION	 FLOOD MITIGATION ASSISTANCE
State Agencies	✓	✓	✓
Tribal Governments	✓	✓	✓
Local Governments/ Communities	✓	✓	✓
Private non-profit Organizations (PNPs)	✓	✗	✗



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Hazard Mitigation Plan Requirement

Grant Program	State /Tribal Plan Status	Local Plan Status
HMGP	Approved at time of disaster declaration	Approved at time of obligation
PDM/FMA	Approved at application deadline and time of obligation	



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APPROVED
by FEMA

Eligible Activities

Eligible Activities			
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*

Eligible Activities	 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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Ineligible Activities

- 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
 - Exception is Safe Rooms
- 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



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FMA Eligibility requirements

All subapplicants must be NFIP participants in good standing (not suspended)



All projects must benefit NFIP-insured properties

FMA funds **cannot** be used for **non-localized flood risk reduction projects**



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FY17 FMA – Funding priorities

FY17 Flood Mitigation Assistance \$160 Million

\$70 Million

1a

**Community
Flood Mitigation
Advance
Assistance**

1b

**Community
Flood Mitigation
Projects**

\$90 Million

2

**Technical
Assistance**

3

Planning

4

**SRL and RL
Priorities**



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Community Flood Mitigation Project Types

Eligible community flood mitigation projects:

- Aquifer storage and recovery
- Stormwater management
- Utility protective measures
- Water and sanitary sewer system protective measures
- Wetland restoration/creation
- Floodplain and stream restoration
- Floodwater storage and diversion
- Infrastructure protective measures
- Localized flood control to protect critical facility



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Subapplication Contents

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



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Scope of Work (SOW)

Detailed description of the proposed project:

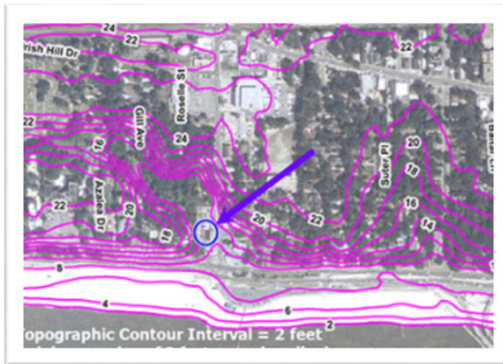
- Who is affected?
- Who is performing the work?
- What is the problem to be mitigated?
- What is the proposed project?
- Where is it located?
- How will it be implemented?
- How will it solve the problem?



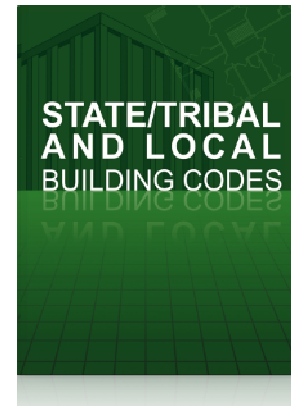
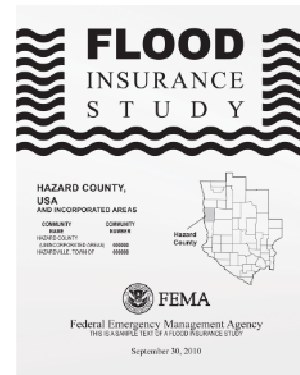
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SOW – Supporting Documentation

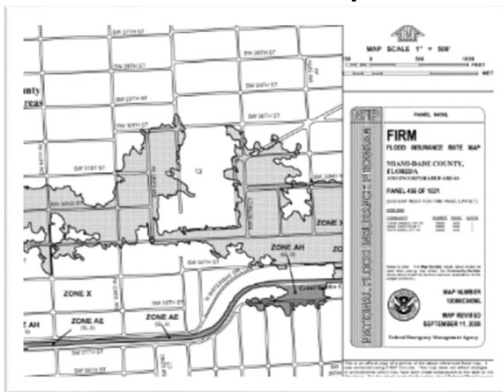
Topographic Maps



Pertinent Studies



Street Map



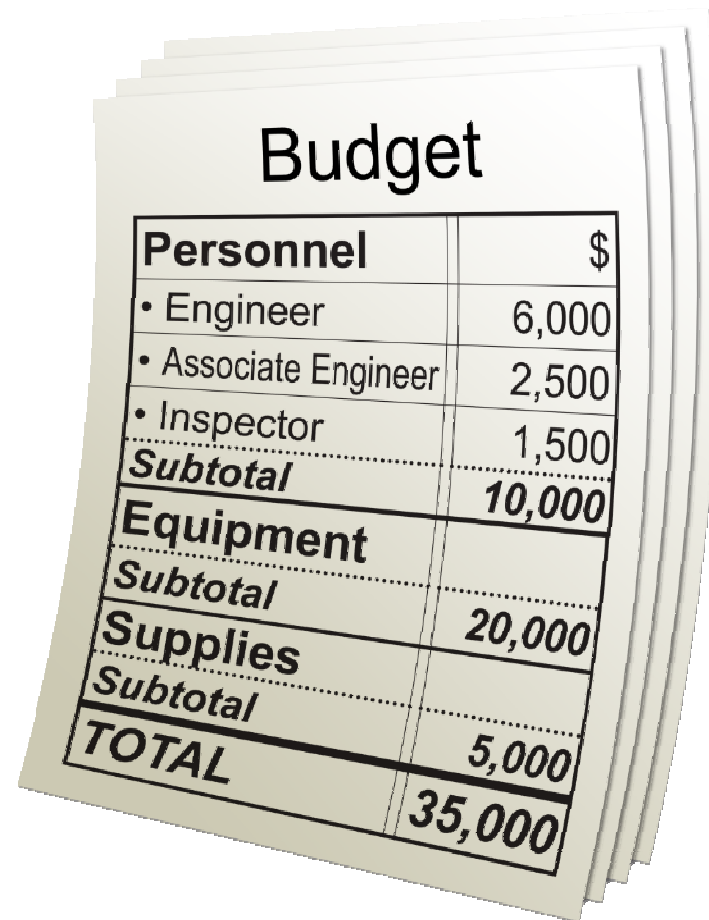
At least three photos



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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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Cost Estimate/Budget, continued

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



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Budget and Budget Narrative Example

403.3 - Stormwater Management - Flapgates/Floodgates				Federal Share: \$ 62,500.00	
Item Name	Cost Classification	Unit Quantity	Unit of Measure	Unit Cost (\$)	Cost Estimate (\$)
42" Check Valve Delivered	Construction And Project Improvement	1.00	Each	\$ 20,000.00	\$ 20,000.00
54" Check Valve Delivered	Construction And Project Improvement	1.00	Each	\$ 35,000.00	\$ 35,000.00
Install 42" Check Valve	Construction And Project Improvement	1.00	Each	\$ 8,500.00	\$ 8,500.00
Install 54" Check Valve	Construction And Project Improvement	1.00	Each	\$ 10,000.00	\$ 10,000.00
City Administrative Expenses	Administrative Expense	1.00	Each	\$ 4,500.00	\$ 4,500.00
Engineering Fees	Architectural Engineering Basic Fees	1.00	Each	\$ 7,000.00	\$ 7,000.00
Equipment Costs	Equipment	1.00	Each	\$ 5,000.00	\$ 5,000.00
				Total Cost	\$ 90,000.00

Total Project Cost Estimate: \$ 90,000.00

City Administrative Expenses – This cost covers the City's management cost of the project and grant. The Utilities Director will oversee the project ($\$35.21/\text{h} \times 71 \text{ hours} = \$2,500$) and City staff (3 staff $\times \$22.22/\text{h} \times 30 \text{ hours} = \$2,000$) will provide inspection of the construction.

Engineering Fees – These fees will cover the cost for the City contracted engineering firm to oversee the design and contract documents for the construction. This also covers the cost for the Engineering firm to bid the project and perform contract and grant administration.

Equipment Costs – This cost covers the City's equipment operating cost including a loader/excavator to assist in the installation of the check valves. ($\$200/\text{h} \times 25 \text{ hours} = \$5,000$)

Equipment purchase and installation – These amounts are averages of 3 quotes from suppliers and installers.



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Pre-Award Costs

Costs incurred after the HMA application period has opened, but prior to the date of the grant award.

- Application Development
- Development of BCA
- Collection of EHP data
- Preparing for design specifications
- Community outreach & meetings related to the development of the application

Any work related to implementation is ineligible prior to award and may result in grant denial

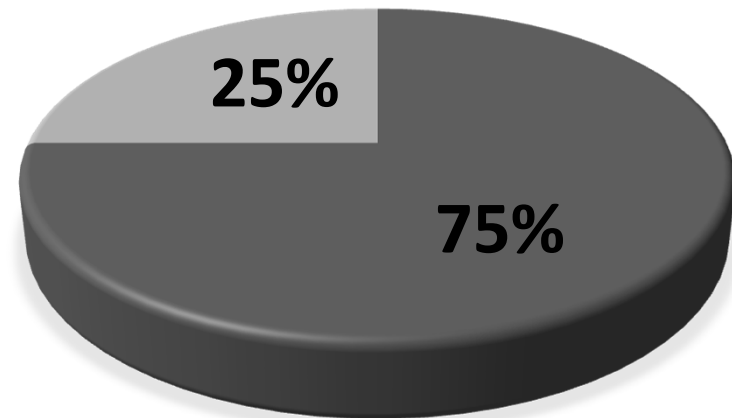


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Cost-Share Requirements

Grant Funds: In general, FEMA Mitigation funds may be used to pay up to 75% of the eligible activity of the costs.

Matching Funds: The remaining 25% of eligible activity costs are derived from non-Federal sources.



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Cost-Share Requirements, continued

However, there are some exceptions—
FEMA will pay up to:

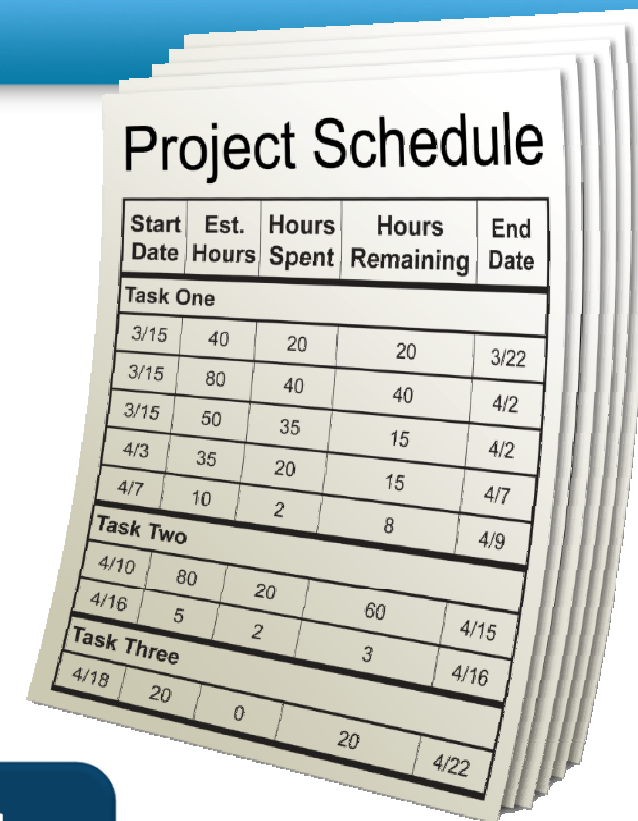
- **90%** under PDM for small, impoverished communities
- **90%** under FMA for Repetitive Loss Properties (RL)
- **100%** under FMA for Severe Repetitive Loss Properties (SRL)



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Schedule

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



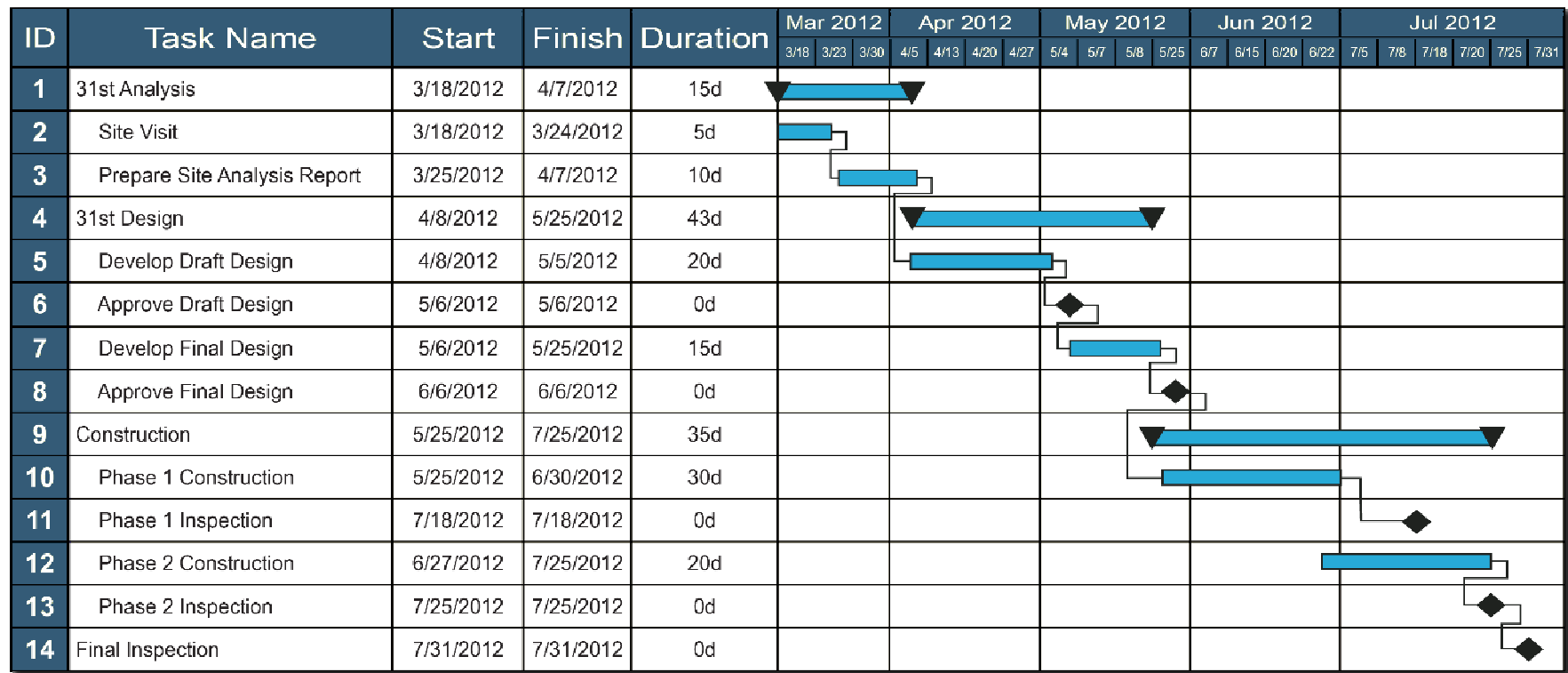
Start Date	Est. Hours	Hours Spent	Hours Remaining	End Date
Task One				
3/15	40	20	20	3/22
3/15	80	40	40	4/2
3/15	50	35	15	4/2
4/3	35	20	15	4/7
4/7	10	2	8	4/9
Task Two				
4/10	80	20	60	4/15
4/16	5	2	3	4/16
Task Three				
4/18	20	0	20	4/22

Projected time must not exceed the grant performance period



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Example of Scheduling Chart



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Additional Project Application Elements

- Decision-making Process
- Damage History
- Property/Facility Data
- Engineering Feasibility
- Cost-Effectiveness
- Environmental/Historic Preservation



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Cost-Effectiveness

Applications must demonstrate project **cost-effectiveness** through an acceptable Benefit Cost Analysis (BCA).

The Benefit Cost Ratio (BCR) is calculated by dividing the total annualized project benefits by total annualized project costs. **The BCR must be equal to or greater than 1 to be considered cost-effective.**

The State Hazard Mitigation Office can assist with the BCA portion of your application.



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Cost-Effectiveness, continued

BCA Tools:

- BCA Software 5.3.0 (released Jan. 10, 2017)
- *BCA Reference Guide, June 2009*
- *BCA Supplement to the BCA Reference Guide, June 2011*
- Environmental Benefits Policy
- BCA Technical Assistance Helpline 1-855-540-6744

www.fema.gov/benefit-cost-analysis



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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



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Technical Feasibility

FEMA accepts engineering designs for a project if a registered Professional Engineer (or other design professional) certifies that the design meets **ASCE 24-14** criteria or its equivalent.

At closeout, verification is also required that the project was constructed as designed and in accordance with the approved SOW and provides the intended level of protections.



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HMA Program Guidance

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



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 C Street, S.W.
Washington, DC 20472



FEMA

Washington, DC 20472
500 C Street, S.W.
Department of Homeland Security
Federal Emergency Management Agency

HMA Guidance - Project Type Addendums

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



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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



Federal Emergency Management Agency
Department of Homeland Security
500 C Street, SW
Washington, DC 20472



Federal Emergency Management Agency
Department of Homeland Security
500 C Street, SW
Washington, DC 20472

February 27, 2012

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

State Hazard Mitigation Officer

Vera Small, State Hazard Mitigation Specialist
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Administration

Illinois Emergency Management Agency

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ILEMA

Questions



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