



FEMA's Hazard Mitigation Assistance Grant Programs

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Hazard Mitigation Grant (HMA) Programs

- **Hazard Mitigation Grant Program (HMGP)**
- **Flood Mitigation Assistance (FMA)**
- **Pre-Disaster Mitigation (PDM)**

We will discuss HMGP in Detail

Update on FMA



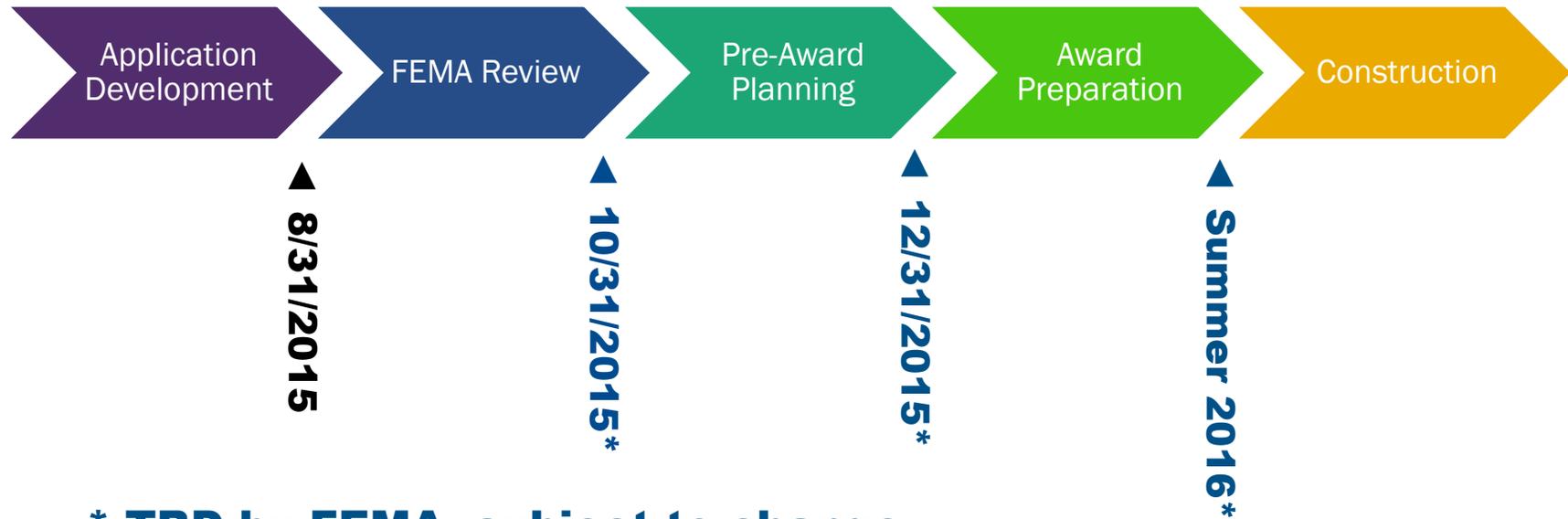
FMA

Update – October 2015

What is FMA?

- FMA is a nationally competitive, annual FEMA grant program
- Voluntary with no guarantee of funding
- Elevation of non-compliant structures is an eligible activity under FMA
- FEMA pays 75% to 100% of eligible costs based on loss history status
- FEMA prioritizes SRL and FMA-RL properties
- Eligibility requirements for COH Grant Application submitted August 2015:
 - located in the City of Houston
 - covered by NFIP flood insurance at time of application
 - contribute to an aggregate BCA of above 1.0 for the application

FMA Timeline



*** TBD by FEMA, subject to change**

How were FMA properties ranked?

- **Loss status (based on FEMA priority for funding)**
 - SRL(a)
 - FMA RL
 - SRL (b)
 - Insured
- **BCR**
- **Ratio of previous losses to project cost (for projects where BCA cannot be calculated)**

What is Benefit Cost Analysis (BCA)?

- BCA is the process by which the benefits of a project are compared with the cost of doing the project.
- Benefit Cost Ratio (BCR) is the result of a BCA

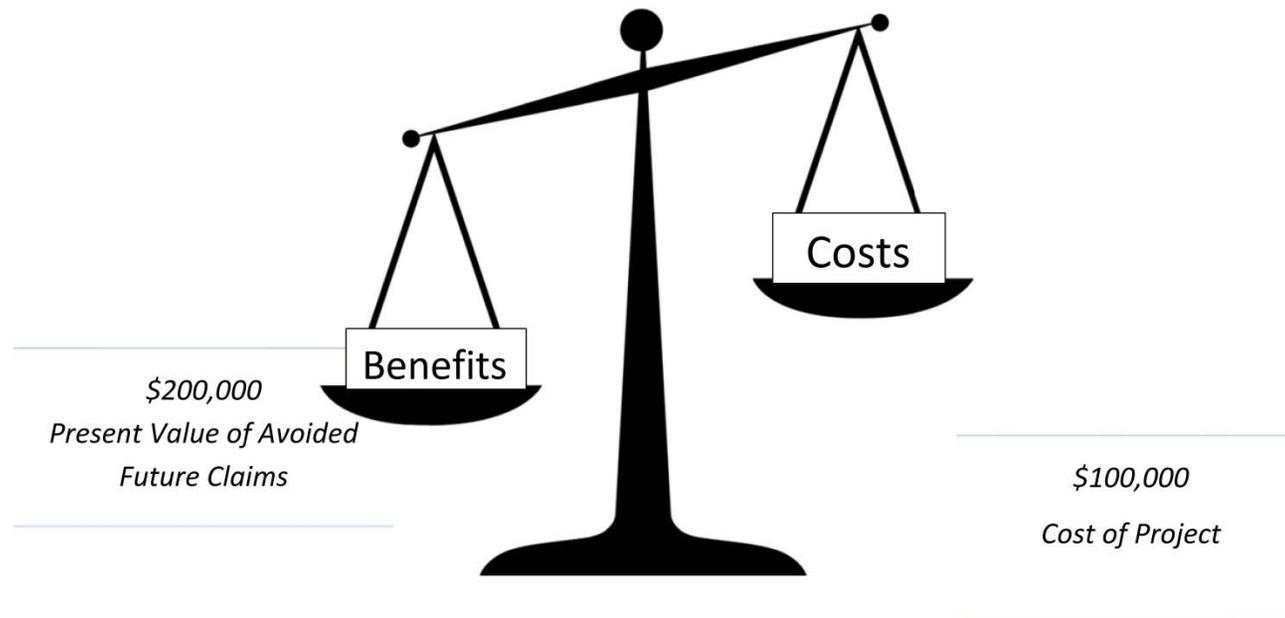
$$\text{BCR} = \frac{\text{Benefit}}{\text{Cost}} \geq 1.0$$

- Benefits are calculated using the most favorable of FEMA's statistical models. These models use data such as the loss history, structure elevation and flood insurance study data to calculate the present value of the predicted future flood losses
- Cost is the estimated total project cost
- $\text{BCR} \geq 1.0$ is considered "cost effective"

Example of Cost Effective BCR

(BCR \geq 1.0)

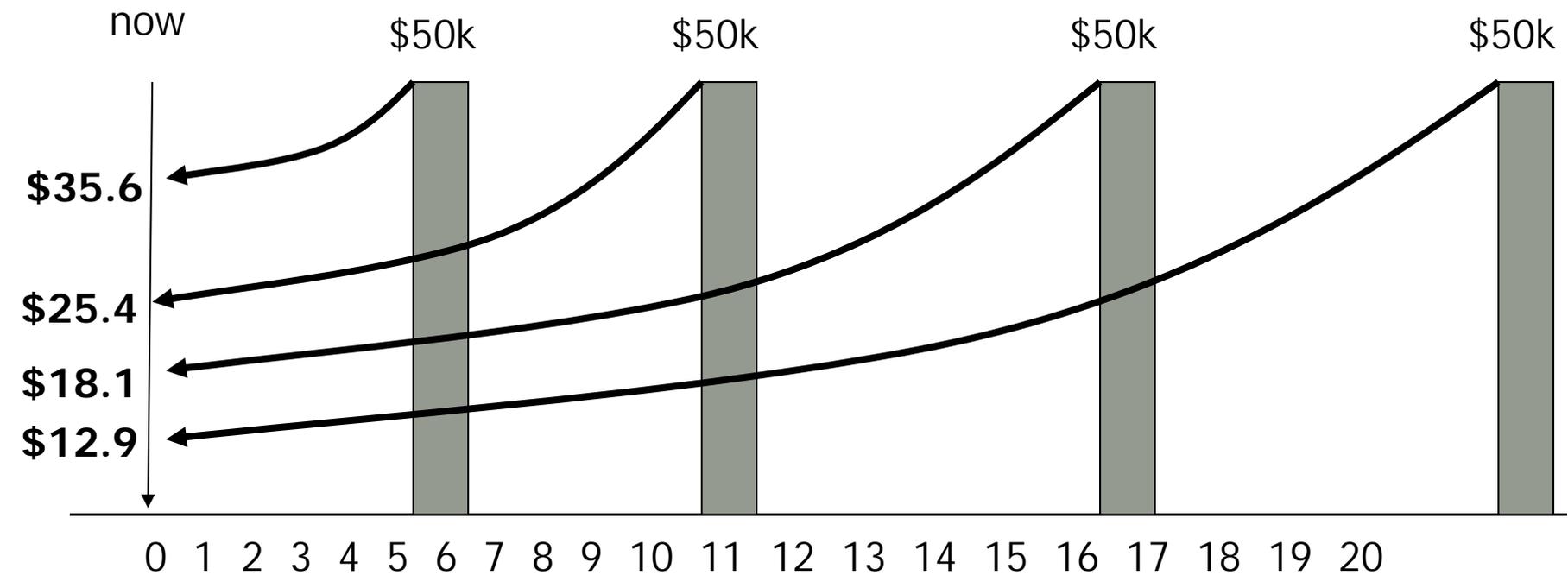
$$BCR = \frac{\textit{Benefit}}{\textit{Cost}} = \frac{\$200,000}{\$100,000} = 2.0$$



BEHIND THE CURTAIN

“Calculated using the Net Present Value”

Present value of 20 years of losses is \$92k not \$200k



\$92k

FMA Info Sheet



CITY OF HOUSTON

Floodplain Management Office
 Department of Public Works and Engineering
 1002 Washington Avenue, 3rd floor, Houston, Texas 77002
 (832) 394.8854
 fmo@houstontx.gov

COH Home Elevation Grant Project Information Sheet

Owner Name	John Smith
Address	123 Main Street
Elevation of Lowest Floor (1988 NAVD, 2001 Adjustment)	52.43 feet
Depth of Lowest Floor Below BFE	1.8 feet
Required Lift	2.8 feet
Loss Status (FMA SRL, FMA RL, FMA SRLb or Insured)	FMA RL
Federal/Homeowner Cost Split	90/10
Estimated Total Eligible Project Costs	\$100,000
Estimated Federal Share	\$90,000
Estimated Homeowner Share	\$10,000
Benefit Cost Ratio	0.11
Rank	176
Property Status (Candidate/Alternate)	Alternate

Visit

www.houstonrecovers.org

***to review FMA FAQs
for more information***



Hazard Mitigation Grant Program (HMGP)

Overview

Who is Eligible?

The following entities that are participating in the NFIP:

- **State-level agencies**
- **Indian Tribal governments**
- **Local communities**

A FEMA-approved Hazard Mitigation Plan is also required.



Period of Performance (POP)

- **HMGP (Post-Disaster)** - begins with the opening of the application period and ends no later than 36 months from the close of the application period.
- **PDM and FMA – (Pre-Disaster)** begins with the opening of the application period and ends no later than 36 months from the date of subapplication selection.

HMA Eligible Activities

Eligible Activities	HMGP	PDM	FMA
1. Mitigation Projects	✓	✓	✓
Property Acquisition and Structure Demolition	✓	✓	✓
Property Acquisition and Structure Relocation	✓	✓	✓
Structure Elevation	✓	✓	✓
Mitigation Reconstruction	✓	✓	✓
Dry Floodproofing of Historic Residential Structures	✓	✓	✓
Dry Floodproofing of Non-residential Structures	✓	✓	✓
Generators	✓	✓	
Localized Flood Risk Reduction Projects	✓	✓	✓
Non-localized Flood Risk Reduction Projects	✓	✓	
Structural Retrofitting of Existing Buildings	✓	✓	✓
Non-structural Retrofitting of Existing Buildings and Facilities	✓	✓	✓
Safe Room Construction	✓	✓	
Wind Retrofit for One- and Two-Family Residences	✓	✓	
Infrastructure Retrofit	✓	✓	✓
Soil Stabilization	✓	✓	✓
Wildfire Mitigation	✓	✓	
Post-Disaster Code Enforcement	✓		
Advance Assistance	✓		
5 Percent Initiative Projects	✓		
Miscellaneous/Other ⁽¹⁾	✓	✓	✓
2. Hazard Mitigation Planning	✓	✓	✓
Planning Related Activities	✓		
3. Technical Assistance			✓
4. Management Cost	✓	✓	✓

⁽¹⁾ Miscellaneous/Other Indicates that any proposed action will be evaluated on its own merit against program requirements. Eligible projects will be approved provided funding is available.

HMGP Introduction and Summary

- **Authorized under Section 404 of the Stafford Act and administered by FEMA**
- **Purpose:** To ensure that the opportunity to take critical mitigation measures to reduce the risk of loss of life and property from future disasters is not lost during the reconstruction process.
- **Funding:** Based on the estimated total Federal assistance, subject to sliding scale formula:
 - Up to 15% of the first \$2 billion
 - Up to 10% for amounts \$2B and \$10B
 - Up to 7.5% for amounts between \$10B and \$35.33B
 - **Current Funding - \$35 million (subject to change)**

HMA Funds Flow

Individual homeowners, businesses, and private nonprofits may apply for funding through eligible subapplicants

Subapplicants

Federally-Recognized Tribes

State Agencies

Private Nonprofits (HMGP only)

Tribal Agencies

Local Governments/Communities

Applicants

Territories

Federally-Recognized Tribes

States

FEMA

Lock-In

THE HMGP FINAL LOCK-IN

Total State Management Cost
(4.89% of Total Available HMGP):



Prior to 12 Months:

FEMA obligates up to 75 percent of total HMGP funding separate from State Management Cost



At 12 Months:

FEMA establishes the full HMGP ceiling amount



After 12 Months:

For a catastrophic disaster, the final lock-in amount is adjusted upon request of a Recipient

- FEMA determines HMGP funding by a lock-in
- Acts as a ceiling for funds available to a Recipient, including its subrecipients.
- Initial estimate will be provided within 35 days of declaration
- The 6-month estimate no longer the floor or a guaranteed minimum funding for HMGP.
- The 12-month lock-in is the maximum amount available.
- Notice of Interest (NOI) and application deadlines are set by the State – usually completed within 4-6 months from the disaster declaration
- The FEMA application deadline for the State is: declaration date + 12 months

HAZARD MITIGATION GRANT PROGRAM

Projects must:

Solve a problem;

Have a beneficial impact;

Be cost effective;

Substantially reduce future risk;

Be environmentally sound;

Conform with Local and State Mitigation
Plans and Program Requirements.

Who is Eligible?

FMA Program

The following entities that are participating in the NFIP:

- State-level agencies
- Indian Tribal governments
- Local communities

A FEMA-approved Hazard Mitigation Plan is also required





Mitigation of Flood Damaged Homes

Duplication of Benefits

- Flood insurance structural payments **MAY** have to be accounted for in the grant eligible expense
- Increased Cost of Compliance may be able to be use for non federal share
 - For those that are non-SRL
 - In SFHA
 - Coverage D in policy
 - Substantially damaged
 - Policy limits still apply

Mitigation of Flood Damaged Homes

Primary Mitigation project types

- Home Elevation
- Mitigation Reconstruction (aka - demolition and rebuild)
- Home Acquisition and Demolition

Structure Elevation

- Physically raising existing structure to a higher elevation at or above the BFE – COH requires 12” above base flood elevation
- Guidance States building must be structurally sound and capable of withstanding elevation

Elevation

- One of the most common retrofitting methods is elevating
- When a house is properly elevated, the living area will be above all but the most severe floods (such as the 500 year flood).
- Almost any home can be elevated
- Most elevations in TX are slab on grade

Elevation

- **Raise existing structure at or above base flood elevation (BFE) or alternate elevation**
- **Project must be cost-effective**
- **Elevation methods:**
 - Elevating on continuous foundation walls
 - Elevating on open foundations such as piles, piers, posts, or columns
 - Elevating on fill
- **Prior flood loss or depth in the flood plain determine benefit**
- **Method of elevation drives cost**



Eligible Costs

- ▶ Architectural and engineering fees associated with a design
- ▶ Permitting
- ▶ Clearing necessary vegetation and preparing path for installation of lifting supports
- ▶ Excavation around the dwelling
- ▶ Lifting or jacking building
- ▶ Additional cost of elevating the risk above the minimum required height
- ▶ Temporary support cribbing
- ▶ Disconnecting utility connections
- ▶ Extending or modifying utility connections
- ▶ Reconnecting utility connections
- ▶ Constructing a compliant foundation
- ▶ Code upgrade requirements not related to state or local floodplain ordinances
- ▶ Cost associated with elevating the insured building out of a SFHA
- ▶ Restoring the lawn
- ▶ Restoring walks, driveways...

Ineligible Costs

- **Elevating structures that were not in compliance with current NFIP standards at the time of construction**
- **Costs related to building additions or auxiliary structures**
- **Construction of new decks or porches**
- **Any improvements for purely aesthetic reasons, unless required by the EHP compliance review**
- **Costs to replace or repair utility service components that are undersized, inadequately designed, or unsafe, unless required by code (except utility rooms noted as eligible costs)**
- **Exterior finish on the exposed foundation of the elevated building, unless required by EHP compliance review and or local code**
- **Additional landscaping for ornamentation beyond what existed on the site prior to construction of the project (e.g., trees, shrubs)**

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A Picture is Worth A Thousand Words



























Before – Galveston County Home Elevation



After – Galveston County Home Elevation



Before – Galveston County Home Elevation



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After – Galveston County Home Elevation



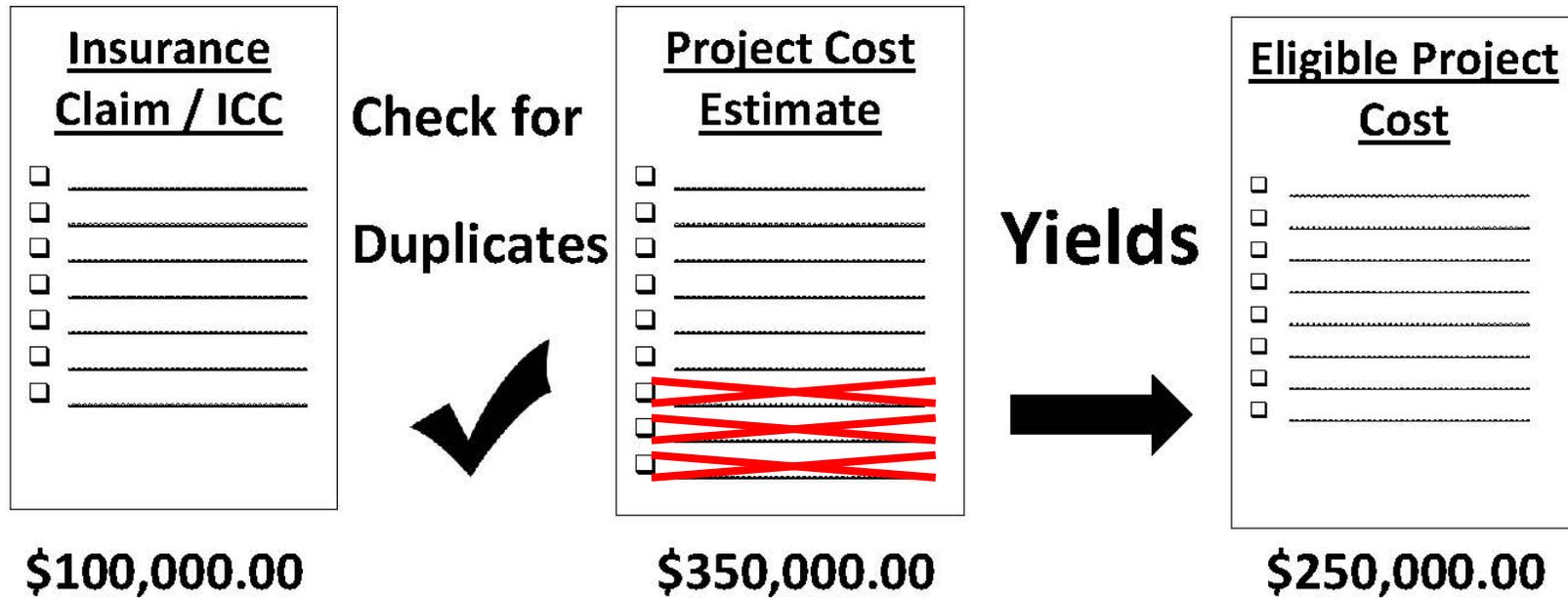
Mitigation Reconstruction

- **Property must be NFIP-insured at the time of the application submittal**
- **Flood insurance must be maintained through completion of the mitigation activity and for the life of the structure.**
- **Mitigation reconstruction projects cannot be combined with other activity types in the same project subapplication to ensure that the scope, schedule, and budget adhere to programmatic requirements.**

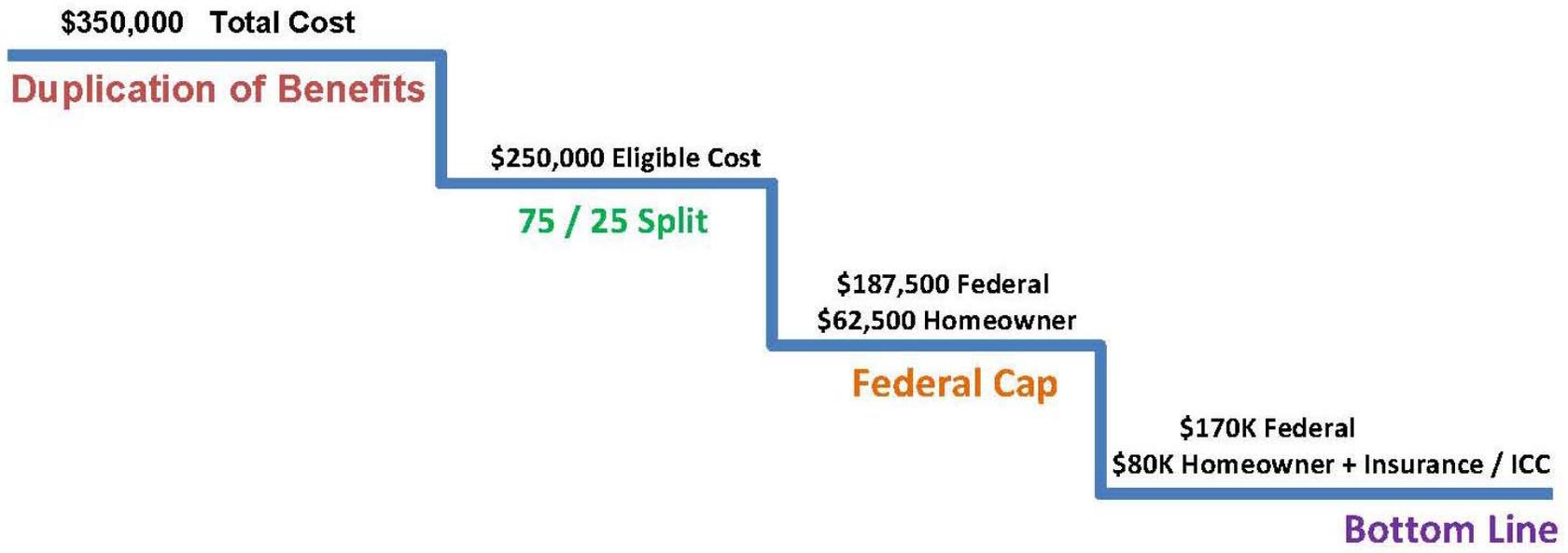
Eligible Mitigation Reconstruction Activities

- Costs are limited to a \$150,000 Federal share per property ***subject to duplication of benefits review***
- Some eligible activities, (eg. administrative allowances and permitting fees) not included in the \$150,000 Cap.
- The activities that are eligible as part of a Federal award in mitigation reconstruction are divided into three categories: Project scoping, pre-construction activities, and construction
- Square footage of resulting structure shall be no more than 10 percent greater than the original structure.
 - Breezeways, decks, garages... not considered part of the original square footage unless situated on the original foundation system.
 - Original square footage must be documented.

Impact of Duplication of Benefits



Steps to Homeowner Share for Demo-Rebuild



Eligible Mitigation Reconstruction Costs

Project Scoping

- Property verification (e.g., size of pre-existing structure)
- Preliminary elevation determination
- Environmental Site Assessment Phase
- Engineering Feasibility Study (e.g., Can an existing structure be elevated? Is mitigation reconstruction feasible?)
- Benefit-Cost Analysis
- Title search (e.g., ownership verification)

Eligible Mitigation Reconstruction Costs

Pre-construction Activities

- Site survey (i.e., boundaries, elevation)
- Soils/geotechnical paint testing, testing for asbestos and lead-based
- Archeological Assessment Phase 1
- Local, State, and Federal and Historic Preservation permitting (e.g., Environmental Planning and U.S. Army Corps of Engineers)
- Architectural engineering design plans specifications
- Plan review

Eligible Mitigation Reconstruction Costs

Construction Activities

- Permitted disposal of routine asbestos, lead-based paint, and household hazardous wastes incidental to demolition
- EHM mitigation
- Demolition/removal - (YES)
- Erosion Control/Grading/Drainage- (YES)
- Utility connections- (YES)
- Landscaping for site stabilization- (YES)
- Walks and driveways- (YES)

- (YES) = Subject to the \$150,000 federal Cap

Eligible Mitigation Reconstruction Costs

Construction Activities (Cont)

- Permitted disposal of routine asbestos, lead-based paint, and household hazardous wastes incidental to demolition
- EHM mitigation
- Demolition/removal - (YES)
- Erosion Control/Grading/Drainage- (YES)
- Utility connections- (YES)
- Landscaping for site stabilization- (YES)
- Walks and driveways- (YES)
- Elevation Foundation - (YES)

- (YES) = Subject to the \$150,000 federal Cap

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Mitigation Reconstruction Ineligible Costs

Some mitigation reconstruction activities and their associated costs are not eligible. Ineligible costs include, but are not limited to, the following:

- **Landscaping for ornamentation (e.g., trees, shrubs)**
- **Decks and garages not included as part of the foundation system**
- **All construction activities not specifically noted in this guidance and not specifically approved by FEMA in advance**
- **Site remediation of hazardous materials**

Deed Restriction Requirement

NFIP insurance must be maintained for the life of the property regardless of ownership

Deed Restriction Requirement

“This property has received Federal hazard mitigation assistance. Federal law requires that flood insurance coverage on this property must be maintained during the life of the property regardless of transfer of ownership of such property. Pursuant to 42 U.S.C. 5154a, failure to maintain flood insurance on this property may prohibit the owner from receiving Federal disaster assistance with respect to this property in the event of a flood disaster. The Property Owner is also required to maintain this property in accordance with the floodplain management criteria of 44 CFR Part 60.3 and City/County Ordinance.”.

Reference Documents

- ***FEMA 347 - Above the Flood: Elevating your Flood Prone House***
- ***FEMA P-312 - Homeowner's Guide to Retrofitting Second Edition***
- ***FEMA 551, Selecting Appropriate Mitigation Measures for Floodprone Structures (2007).***
- ***FEMA P-550, Recommended Residential Construction for Coastal Areas: Building on Strong and Safe Foundations (2009)***

Questions?

