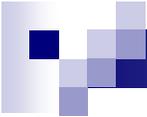




Home Elevation

Flood Mitigation Assistance (FMA)



FEMA Mitigation Programs

■ FMA

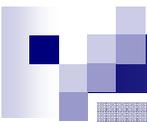
□ Annual program, flood mitigation of NFIP insured properties, Nationally competitive,

\$170M 2017

\$160M 2018

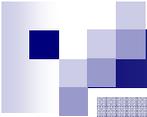
\$160M 2019

\$90M of which is for projects such as home elevations



FMA Program

- **Project Grants** to implement measures to reduce flood losses, such as acquisition & demolition, relocation, **elevation**, mitigation/reconstruction, minor flood reduction projects, and dry flood proofing (non residential).

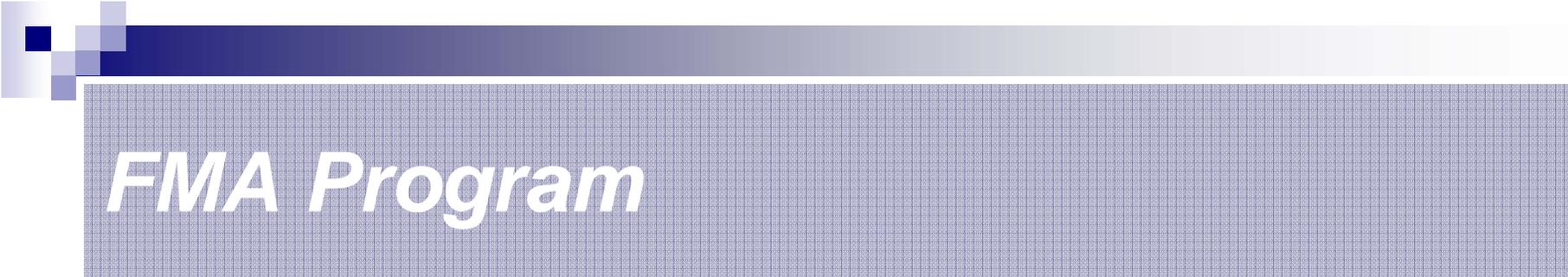


FMA Program

Mitigating **Severe Repetitive Loss (SRL)** and FMA Repetitive Loss (FMA RL) properties are a focus of FEMA and the State

A severe repetitive loss property is a structure that:

- **Is covered by an NFIP flood insurance policy**
- Has incurred flood related damage –
 - For which 4 or more separate claims payments (building and contents) have been made with the amount of each such claim exceeding \$5,000, **Or**
 - For which at least 2 separate claims payments (building only) have been made, with the cumulative amount of such claims exceeding the market value of the insured structure

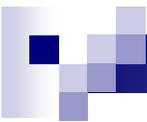


FMA Program

Mitigating Severe Repetitive Loss (SRL) and **FMA Repetitive Loss (FMA RL)** properties are a focus of FEMA and the State

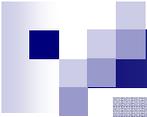
An FMA repetitive loss property is a structure that:

- **Is covered by an NFIP flood insurance policy**
- Has incurred flood related damage –
 - Has incurred flood-related damage on 2 occasions, in which the cost of the repair, on the average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event; and
 - At the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage.



FMA Funding

- Percent of Federal funding provided based on categorization of home
 - SRL – 100% Federal funding
 - No homeowner required match for grant eligible costs
 - FMA RL – 90% Federal funding
 - 10% homeowner required match for grant eligible costs
 - Insured Non-SRL, Non-FMA RL – 75% Federal funding
 - 25% homeowner required match for grant eligible costs



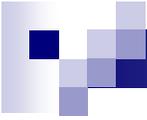
Elevation

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





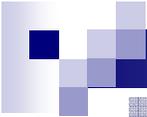
Benefit Cost Analysis (BCA)

- **BCA:** A quantitative procedure that assesses the cost effectiveness of a hazard mitigation measure by taking a long-term view of avoided future damages as compared to the cost of a project.
- **Benefit-Cost Ratio (BCR):** A numerical expression of the cost effectiveness of a project calculated as the net present value of total project benefits divided by the net present value of total project costs.



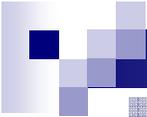
- In addition to a greater peace of mind, advantages to elevating include the following:

- Elevation to or above the Base Flood Elevation (BFE) allows a substantially damaged or substantially improved house to be brought into compliance with your community's floodplain management ordinance or law. (The Base Flood is a flood having a 1% chance of being equaled or exceeded in any given year)
- Elevation reduces the flood risk to the house and its contents
- Except where a lower floor is used for storage, elevation eliminates the need to move vulnerable contents to areas above the water level during flooding
- Elevation techniques are well known, and qualified contractors are often readily available
- Elevation reduces the physical, financial, and emotional strain that accompanies floods
- Elevation provides homeowners with additional parking and storage space within their home
- Elevation often reduces flood insurance premiums



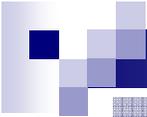
Eligible Costs

- ▶ Architectural and engineering fees
- ▶ Permitting
- ▶ Clearing necessary vegetation
- ▶ Excavation around the dwelling
- ▶ Lifting or jacking building
- ▶ Temporary support cribbing
- ▶ Disconnecting , extending, and reconnecting utilities
- ▶ Constructing a compliant foundation
- ▶ Cost associated with elevating the building to the required height
- ▶ Restoring the lawn, walks, driveways, and other surfaces outside the perimeter exterior walls, if damaged by the elevation process



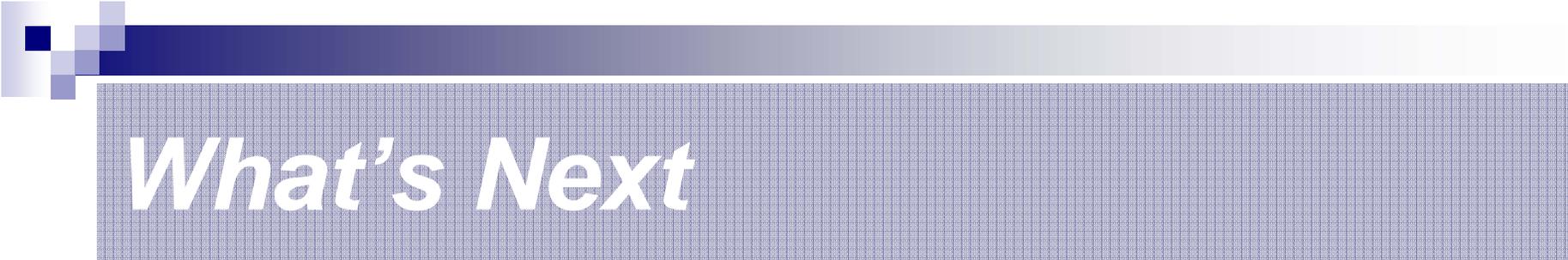
Ineligible Costs

- 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
- Costs to replace or repair utility service components that are undersized, inadequately designed, or unsafe, unless required by code
- Exterior finish on the exposed foundation of the elevated building
- Additional landscaping for ornamentation beyond what existed on the site prior to construction of the project (e.g., trees, shrubs)



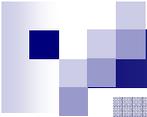
Reference Documents

- FEMA 347 - *Above the Flood: Elevating your Flood Prone House*
(<http://www.fema.gov/library/viewRecord.do?id=1424>)
- FEMA P-312 - *Homeowner's Guide to Retrofitting Second Edition*
(<http://www.fema.gov/library/viewRecord.do?id=1420>)



What's Next

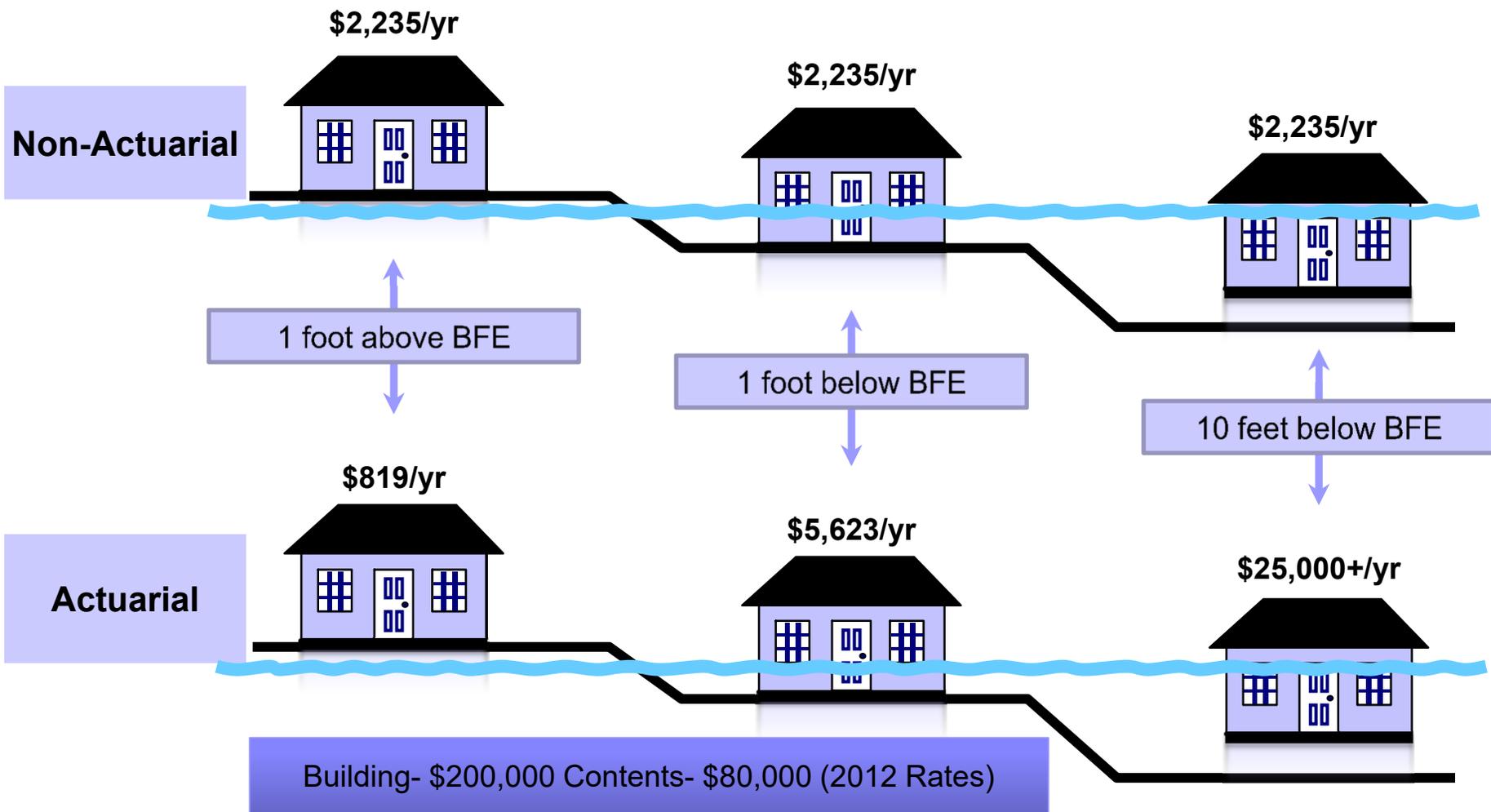
- City now needs to identify interested homeowners
 - Voluntary program



What's Next

- ▶ Complete Benefit Cost Analysis
 - ▶ Elevation Certificates needed
 - ▶ Aggregate BCR has to be greater than 1.0
- ▶ Completed application for interested/cost effective homes
- ▶ Submit application by Due date
- ▶ Wait for results of review
 - ▶ Timing to be determined..... but months

Rate comparisons



Questions?

