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# Bringing Your Hazard Mitigation Plan to Life

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# Maryland is Disaster Prone!

- Maryland susceptible to a variety of weather related emergencies
- 30 Federal Disaster Declarations state-wide since 1962.
  - Hurricane/Tropical Storm 9
  - Snow/Ice 9
  - Flooding 7
  - Severe Storms 3
  - Tornadoes 2
- Numerous local disasters



# Solution: Hazard Mitigation Break-the-Cycle

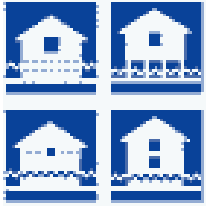


# What is Hazard Mitigation?

Hazard Mitigation is any sustained action taken to reduce or eliminate long-term risk to people and property from natural & man-made hazards & their effects.





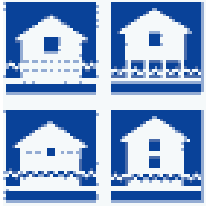


# Flood Mitigation Options

## Acquisition and Demolition or Relocation

- Acquisition of flood prone structures and removal from the floodplain
- Most effective solution, no residual risk
- Land protected in perpetuity as open space

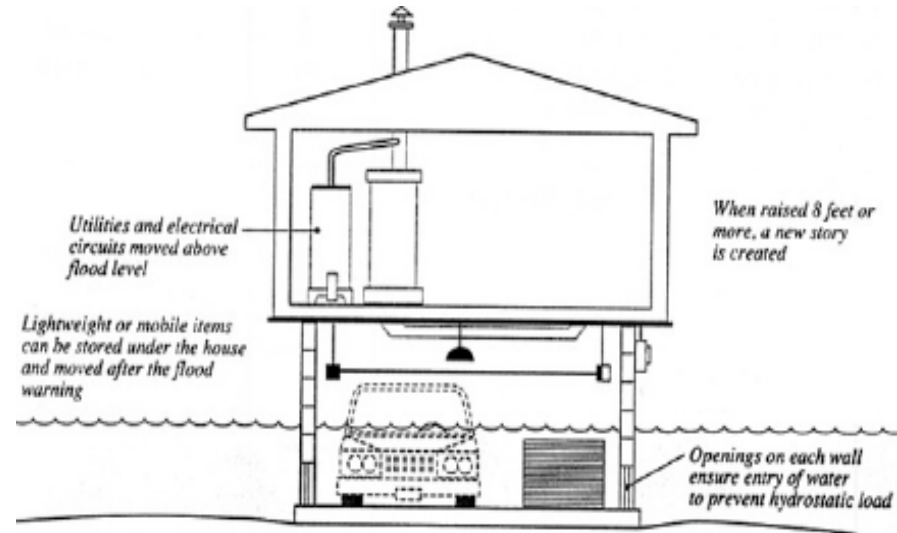




# Flood Mitigation Options

## Elevation-In-Place

- Elevation of flood prone structures
- Still risk of flooding from severe events
- Must comply with local floodplain regulations



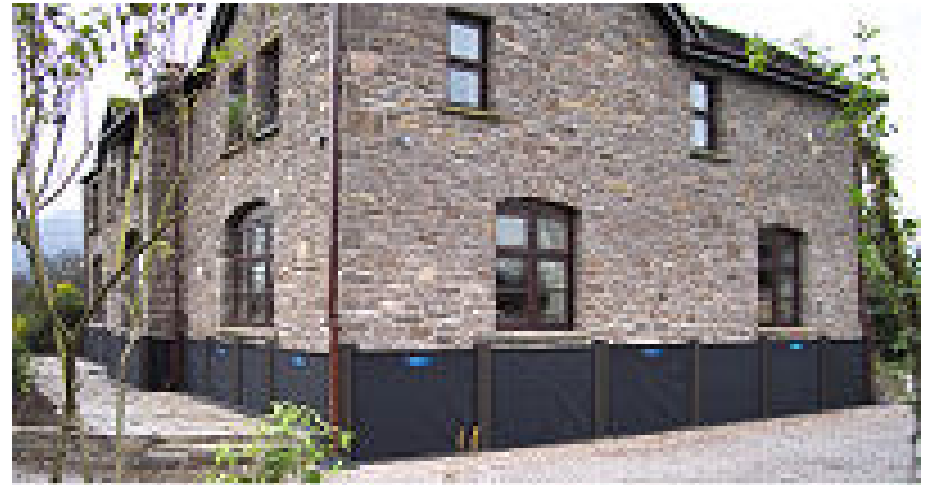


# Flood Mitigation Options

## Retrofitting



- Retrofitting existing buildings & facilities
- Any measure other than elevation-in-place to reduce risk of damage to structure
- Good for minor flooding
- Wet & dry floodproofing, backflow valves, sump pumps, flood resistant materials, anchors & tie downs, etc.





# Flood Mitigation Options

## Stormwater Management

- Must reduce flood risk & damage to existing infrastructure
- Cannot transfer the flood problem upstream or downstream
- Primary purpose is flood loss reduction, not water quality management





The  
Rain Garden  
Reserve  
A  
Cuyahoga Falls  
Community Conservation  
Garden











# Flood Mitigation Options



Other flood mitigation options include:

- Infrastructure protection measures
- Minor structural flood control projects
- Major structural flood control projects such as levees and reservoirs (generally NOT eligible for FEMA HMA grant funding)

# Other Mitigation Options

FEMA mitigation programs can fund other project types such as:

- Warning systems (under HMGP 5% Initiative)
- Lightning protection (surge protection)
- Seismic Retrofits
- State and Local Hazard Mitigation Planning
- Education & outreach (as part of a larger mitigation project)
- Infrastructure resiliency measures (406 mitigation following a Federal declaration)

As long as the mitigation action is a long-term solution to reduce risk of property or loss of life, it may be an eligible mitigation option!



# Overview of FEMA Mitigation Assistance Programs

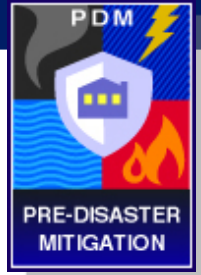


- 3 Unified HMA Programs
  - Post-Disaster
    - Hazard Mitigation Grant Program (HMGP)
  - Pre-Disaster
    - Pre-Disaster Mitigation Competitive (PDM)
    - Flood Mitigation Assistance (FMA)



# Hazard Mitigation Grant Program (HMGP)

- Activated after a Presidential disaster declaration
- Funds allocated during the recovery period
- Intended for investment in long-term mitigation measures to reduce vulnerability to natural hazards
- Available funds equal up to 15% of the total Federal assistance for a disaster (20% for enhanced state)
- NFIP Participating Community
- Projects can be for any natural hazard
- States manage the program and set funding priorities



# Pre-Disaster Mitigation Program (PDM)

- Authorized under Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act
- Nationally competitive funds
- Cost share 75% Federal / 25% Non-Federal
- Must be consistent with adopted local mitigation plan
- Must meet cost-effectiveness requirements
- Available annually based on Congressional appropriations



# Flood Mitigation Assistance Program (FMA)

- Authorized under Section 1366 of the National Flood Insurance Act of 1968
- FMA funds are allocated to the State on an annual basis, based on the number of NFIP policies in effect
- Cost share 75% Federal / 25% Non-Federal (only one half of non-Federal share can be in-kind)
- Must be consistent with adopted flood mitigation plan (local all hazard mitigation plan can be revised to meet requirements)
- Community must participate in and be in good standing with the NFIP



# What does “Unified HMA” exactly mean?

- As of FY2007, FEMA offers hazard mitigation assistance grant programs with:
  - Unique statutory authorities
  - Program requirements and triggers for funding
  - Common goal of providing funds to states and communities to reduce the loss of life and property from future hazard events
  
- The goal of the Unified HMA is to have common:
  - Application and eligibility determination process
  - Program implementation/management processes
  - Grant closeout processes

# Hazard Mitigation Application Development

# Have an idea in mind? ...scope it out!



Use the best information available to identify vulnerable areas, possible mitigation solutions & evaluate possible measures to mitigation the impacts of a particular hazard

- Local Hazard Mitigation Plan
- Special studies/reports

## Steps Include:

- Review program eligibility requirements
- Compare project ideas using Benefit/Cost, feasibility, environmental & engineering screening
- Evaluate community support
- Select the appropriate mitigation measure/activity

# Important Considerations for Application Development

- Assume the reviewer does not know anything about your area or region and may never be able to visit the project site
- Most of the information used to evaluate alternative projects will be needed in the application
- Fully describe the results of the project development process
- Read Program Guidance carefully and provide information accordingly!



# Typical Application Shortcomings

- Project not eligible under FEMA grant programs
- Scope of work inadequate – too little detail, descriptions unclear, key data left out, no supporting maps/diagrams
- Not a well-developed, well-screened project
  - Addressed a ‘nuisance’ issue rather than a real property threat
  - Risk was not high
  - Mitigation measure did not provide adequate protection
  - Cost of measure was too high for level of protection provided
- Supporting documentation/detail was incomplete, inaccurate, and/or not credible

# Essential Components of Application

- Hazard Description – define the problem
- Scope Of Work (SOW) – description of solution
- Cost Estimate
- Work Schedule
- Benefit-Cost Analysis (BCA)
- Engineering Review (if necessary)
- Environmental and Historic Preservation Review

# Sources of Information

- Sources and types of information to include:
  - **Pictures** of project area; if possible, when flooded
  - **Newspaper articles** for information on past disaster events
  - **Reports** from police, fire, and/or emergency management to gather important data like water depths
  - FEMA has **repetitive loss** information and **flood insurance claim** information
  - **Diagram** or schematics of drainage project
  - **Map** of project area with project components clearly marked

# Alternative Sources of Funding

Other sources:

- Local General or Capital Fund
- Revolving Loan Fund
- Storm Water Utility Fund
- Local Tax Funds
- Property Owner Responsibility
- In-Kind
  - *Project Management*
  - *Labor, Equipment, Materials*



# Questions?

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