



Disaster Mitigation

Breaking the Cycle of Repetitive Loss

WHAT IS MITIGATION?

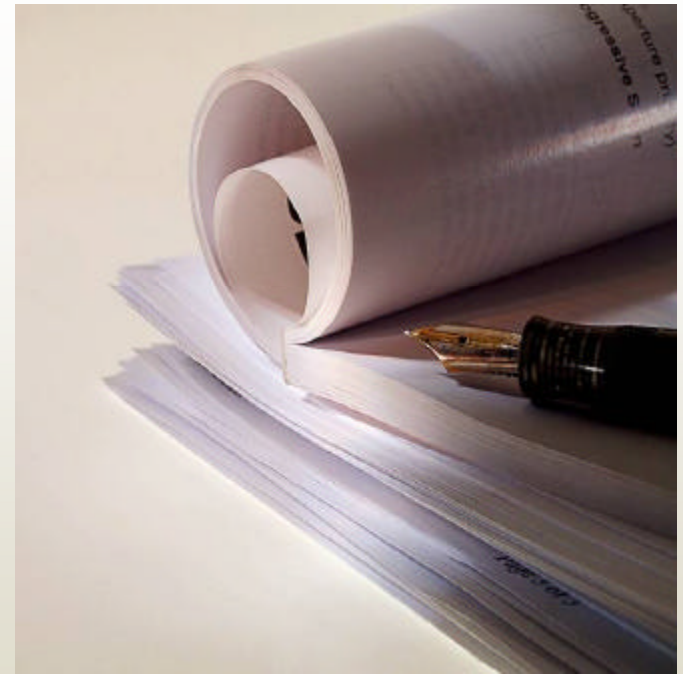
- ▶ Mitigation is the effort to reduce loss of life and property by lessening the impact of disasters. This is achieved through risk analysis, which results in information that provides a foundation for mitigation activities that reduce risk.

Risk Analysis

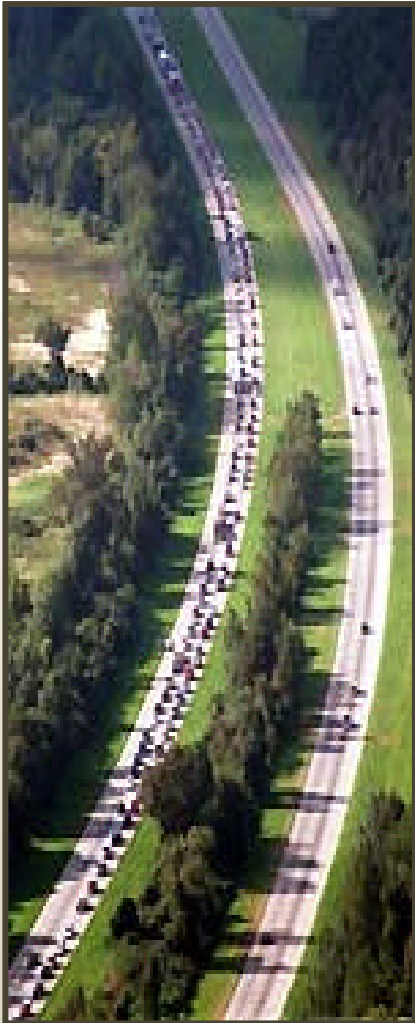
- ▶ Government agencies must understand the full impact of natural hazards using applied multi-hazard engineering science and advanced technology in order to effectively plan to reduce natural hazard effects.

Hazard Identification

- ▶ Review the Hazard Vulnerability Analysis section of your preliminary HVA
- ▶ Add missing Naturally-occurring, Technological and Human-related events to worksheet
- ▶ Discuss Economic Impact
- ▶ Add missing Industrial Hazards



Naturally-Occurring Events



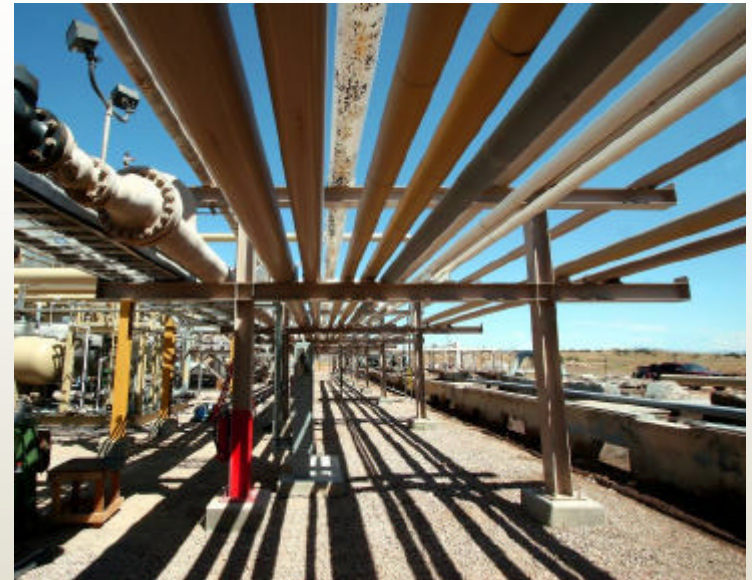
- ▶ Hurricanes/tropical storms
- ▶ Tornadoes
- ▶ Flooding (Flash)
- ▶ Extreme Temperatures
- ▶ Droughts
- ▶ Earthquakes



What are the natural hazards most likely to affect you?

Technological Hazards

- ▶ HAZMAT events
- ▶ Oil Spills
- ▶ Major Structural Fires
- ▶ Explosions
- ▶ Chemical leaks
- ▶ Water/Sewer System Failures



What are the environmental hazards you face?

Human-Related Events

- ▶ Chemical, Biological, Radiological, Nuclear, High-Yield Explosive (CBRNE) Terrorism
- ▶ Civil Disorder
- ▶ Enemy Attack

(All events have an extremely low likelihood of occurring)



Economic Impact

- ▶ Economic State of the Country
 - ▶ Infectious Disease Outbreak
 - ▶ Hazmat/Oil Spill/Explosion (fixed site and transport)
 - ▶ Major Structural Fires
 - ▶ Civil Disorder



Industrial Hazards

- ▶ Facilities which house Extremely Hazardous Substances (EHS)
- ▶ Manufacturing
- ▶ Petroleum/oil/gas storage
- ▶ Chemical companies
- ▶ Transportation of hazardous materials (Freight, rail)



What are the industrial hazards present in your community?

Vulnerable Populations

- ▶ Review preliminary HVA data on County Population
- ▶ Let's discuss vulnerable populations in your counties



Vulnerable Populations

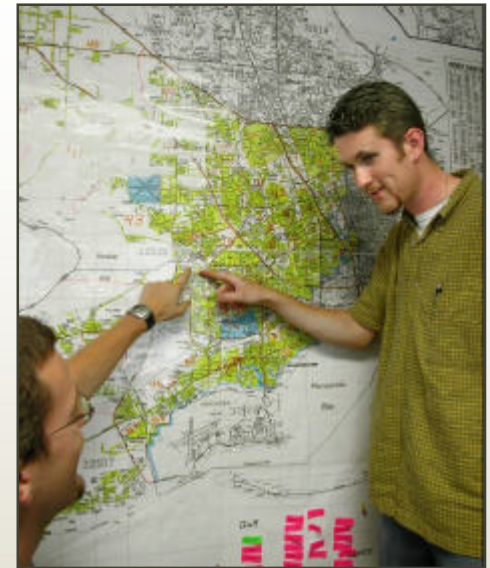
Vulnerable populations were identified as individuals that are expected to need special assistance during an emergency

- ▶ Low-income populations
- ▶ Older adult populations
- ▶ Populations living in mobile homes
- ▶ Populations in assisted living facilities
- ▶ Current number of tuberculosis patients
- ▶ Mental health population
- ▶ Incarcerated
- ▶ Populations with English as a second language

Vulnerable Populations: Low-Income

Low-Income Populations:

- ▶ Are typically affected by environmental hazards due to the higher proportions of these populations that reside in close proximity to hazardous materials
- ▶ Suffer from health conditions and other risk factors that make them more susceptible to the effects of disasters
- ▶ Lack the resources necessary to prepare for and recover from disasters



Think about your county. *Where are the geographic areas where your low-income population reside?*

Vulnerable Populations: Older Adults

Older adult populations are disproportionately impacted by the adverse effects of disasters due to:

- ▶ Impaired physical mobility
- ▶ Diminished sensory awareness
- ▶ Chronic health conditions
- ▶ Social and economic limitations



Are there “seniors only” communities in your county? What about retirement communities which attract older residents?

Vulnerable Populations

- ▶ Populations living in mobile homes present challenges because the stability of the structures is often inadequate to withstand the effects of tropical storms, hurricanes and tornadoes
- ▶ Populations living in assisted living facilities require significant preparations and resources for relocation
- ▶ Tuberculosis (TB) and mental health patients, as well as the incarcerated require special planning and resources due to the requirement of needing to know where these populations are located at all times
- ▶ Populations that speak English as a second language also need special consideration and planning due to the probable communication challenges

Risk Reduction

- ▶ The goal of risk reduction is to reduce the risk to life and property, which includes existing structures and future construction, in the pre and post-disaster environments. This is achieved through regulations, local ordinances, land use and building practices, and Mitigation projects that reduce or eliminate long-term risk from hazards and their effects.

Mitigation's Value to Society

- ▶ It creates safer communities by reducing loss of life and property damage.
- ▶ It allows individuals to minimize post-flood disaster disruptions and recover more rapidly.
- ▶ It lessens the financial impact on individuals, communities, and society as a whole.
- ▶ A recent study by the Multi-hazard Mitigation Council shows that each dollar spent on mitigation saves society an average of four dollars.

MITIGATION GRANTS: PRE-DISASTER



FEMA Pre-Disaster Mitigation Grant Programs

- ▶ FEMA's Pre-Disaster Mitigation Grant programs provide funding for eligible mitigation activities. The pre-disaster grants are competitive and awarded annually. They include the following grants:
 - ▶ Flood Mitigation Assistance (FMA) Grant Program
 - ▶ Pre-Disaster Mitigation (PDM) Grant Program
 - ▶ Repetitive Flood Claims (RFC) Grant Program
 - ▶ Severe Repetitive Loss (SRL) Grant Program

Grants Overview: Flood Mitigation Assistance (FMA) Grant Program

- ▶ The FMA program was created with the goal of reducing or eliminating claims under the National Flood Insurance Program (NFIP).
- ▶ The goal of FMA is to assist States and communities implement measures that reduce or eliminate the long-term risk of flood damage to structures insurable under the National Flood Insurance Program.
- ▶ Only NFIP-participating communities with approved Flood Mitigation Plans can apply for FMA Project grants

Grants Overview: Flood Mitigation Assistance (FMA) Grant Program

- ▶ Eligible FMA Projects:
 - ▶ Property Acquisition and Demolition or Relocation
 - ▶ Property Elevation
 - ▶ Localized Minor Flood Reduction Projects
 - ▶ Storm-water Management
 - ▶ Dry Flood-proofing of Historic Residential Structures
 - ▶ Dry Flood-proofing of Non-residential Structures
 - ▶ All Hazard/Flood Mitigation Planning
 - ▶ Technical Assistance for the State to help administer the FMA program and activities, up to 10% of Project grants.

Grants Overview: Flood Mitigation Assistance (FMA) Grant Program

Example Project:

Jefferson County Texas Drainage District #6:

- Beaumont had one of the highest rates of repetitive loss in the country
- Starting in 2001, utilized \$29.1 million in FMA grants for Mitigation planning and projects
- As a result, Beaumont had little flooding as a result of the 6” to 20” of rain during Ike
- Projects are ongoing

Grants Overview: Pre-Disaster Mitigation (PDM) Grant Program

- ▶ The PDM program provides funds for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event.
- ▶ PDM grants reduce reliance on funding from actual disaster declarations
- ▶ PDM grants are to be awarded on a competitive basis and without reference to state allocations, quotas, or other formula-based allocation of funds

Grants Overview: Pre-Disaster Mitigation (PDM) Grant Program

- ▶ Eligible Projects:
 - ▶ Property Acquisition and Demolition or Relocation
 - ▶ Property Elevation
 - ▶ Localized Minor Flood Reduction Projects
 - ▶ Storm-water Management
 - ▶ Infrastructure Protection Measures
 - ▶ Vegetative Management/Soil Stabilization
 - ▶ Retrofitting Existing Buildings and Facilities (Wind/Earthquake)
 - ▶ Safe room construction
 - ▶ All Hazard/Flood Mitigation Planning

Grants Overview: Pre-Disaster Mitigation (PDM) Grant Program

Example Project:

- Virginia (Gloucester County):
Acquisition/Buyouts; Elevation,
Structural; Safe Rooms/Community
Shelters
- County applied for a 2008 PDM grant to purchase five homes for clearance and creating permanent open space in some of its more problematic Zone VE areas

Grants Overview: Pre-Disaster Mitigation (PDM) Grant Program

- Additional Eligibility Requirements:
 - NFIP participation
 - FEMA approved Mitigation Action Plan
 - Local emergency management plan approved at the basic preparedness level
 - Must abide by the State guidance published each year

Grants Overview: Repetitive Flood Claims (RFC) Grant Program

- ▶ The RFC grant program provides up to \$10 million annually to assist States and communities reduce flood damages to insured properties that have had one or more claims to the NFIP.
- ▶ A repetitive loss home has a current flood insurance policy, one or more claim payments for flood damages, and is on the NFIP repetitive loss list*.
- ▶ ****Texas has 25% of the properties on the repetitive loss list Nationwide!****

Grants Overview: Repetitive Flood Claims (RFC) Grant Program

- ▶ **Federal / Non-Federal Cost Share:**
 - ▶ FEMA may contribute up to 100 percent of the total amount approved under the RFC grant award to implement approved activities if the Applicant has demonstrated that the proposed activities can not be funded under the FMA program due to lack of State or local capacity, which includes either inability to manage the subgrant or lack of 25% match.

Grants Overview: Repetitive Flood Claims (RFC) Grant Program

- ▶ Eligible Projects:
 - ▶ Property Acquisition and Demolition or Relocation
 - ▶ Property Elevation
 - ▶ Localized Minor Flood Reduction Projects
 - ▶ Dry Flood-proofing of Non-residential Structures

Grants Overview: Repetitive Flood Claims (RFC) Grant Program

- ▶ Example Project: Miami, OK-Acquisition and Demolition
 - ▶ July 3, 2007 Floodwaters Caused over \$6 million in damages
 - ▶ The City looked to buy flood-prone properties with help from the Hazard Mitigation Grant Program and Repetitive Flood Claims Grant Program. From 2002 to 2006 both programs provided Miami with a total of \$1,149,555. Over all, the City has acquired 34 properties through both programs.

Grants Overview: Severe Repetitive Loss (SRL) Grant Program

- ▶ The SRL grant program was authorized to provide funding to reduce or eliminate the long-term risk of flood damage to severe repetitive loss structures insured under the NFIP by funding project activities that will result in the greatest savings to the National Flood Insurance Fund (NFIF).

Grants Overview: Severe Repetitive Loss (SRL) Grant Program

What is an SRL home?

- ▶ A **residential property** that is covered under an NFIP flood insurance policy and:
 - ▶ (a) Has at least four NFIP claim payments over \$5,000 each, and the cumulative amount exceeds \$20,000; or
 - ▶ (b) Has at least two separate claims payments exceeding the market value of the building.
- ▶ Up to 90 % Federal cost-share funding for projects approved in communities with FEMA-approved Standard or Enhanced Mitigation Plans that include a strategy for mitigating existing and future SRL properties.

Grants Overview: Severe Repetitive Loss (SRL) Grant Program

- Texas is one of 17 states with more than 51 SRL properties and has a target allocation based on the national percentage of SRL properties
 - ▶ As of 2008 Texas had 1,239 confirmed SRL properties and was second only to Louisiana. For 2008 the target allocation for Texas was \$24,543,431.

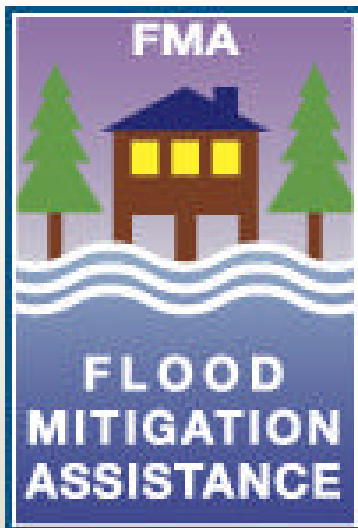
Grants Overview: Severe Repetitive Loss (SRL) Grant Program

- ▶ Eligible Projects:
 - ▶ Property Acquisition and Demolition or Relocation
 - ▶ Property Elevation
 - ▶ Mitigation Reconstruction
 - ▶ The SRL Program allows Mitigation Reconstruction projects located **OUTSIDE** the regulatory floodway or Zone V as identified on the effective FIRM Map, or the mapped limit of the 1.5-foot breaking wave zone. Mitigation Reconstruction is only permitted if traditional elevation cannot be implemented.
 - ▶ Localized Minor Flood Reduction Projects
 - ▶ Dry Flood-proofing of Historic Residential Property

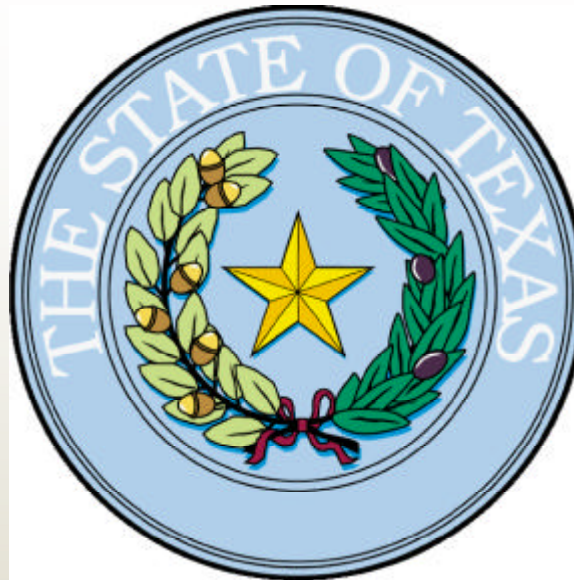
Grants Overview: Severe Repetitive Loss (SRL) Grant Program

- ▶ Example Project: Rock Island County, IL Acquisition and Demolition
 - ▶ Rock Island County had approximately 1,400 parcels located in the floodplain
 - ▶ Flooding was the contributing factor for more than 85 repetitive loss properties in the county
 - ▶ By the middle of 2005, the number of repetitive loss properties had been cut in half through the SRL grant despite floods reaching all time record depths

QUESTIONS?



MITIGATION GRANTS POST-DISASTER



Grants Overview: HUD Community Development Block Grant (CDBG) Disaster Recovery Assistance

- ▶ HUD provides flexible grants to help cities, counties, and States recover from Presidentially declared disasters, especially in low-income areas.
- ▶ HUD generally awards noncompetitive, nonrecurring Disaster Recovery grants by a formula that considers disaster recovery needs unmet by other Federal disaster assistance programs.

Grants Overview: HUD Community Development Block Grant (CDBG) Disaster Recovery Assistance

CDBG: The **MOST** flexible funds!

- ▶ CDBG Disaster Recovery funds can be used for housing, economic development, infrastructure and prevention of further damage to affected areas
- ▶ Eligible activities must meet at least one of three program national objectives:
 - ▶ Benefit persons of low and moderate income
 - ▶ Aid in the prevention or elimination of slums or blight
 - ▶ Meet other urgent community development needs because existing conditions pose a serious and immediate threat to the health and welfare of the community where other financial resources are not available.

Grants Overview: HUD Community Development Block Grant (CDBG) Disaster Recovery Assistance

▶ Examples Eligible Activities:

- ▶ buying damaged properties in a flood plain and relocating residents to safer areas;
- ▶ relocation payments for people and businesses displaced by the disaster;
- ▶ debris removal not covered by FEMA;
- ▶ rehabilitation of homes and buildings damaged by the disaster;
- ▶ buying, constructing, or rehabilitating public facilities such as streets, neighborhood centers, and water, sewer and drainage systems;
- ▶ code enforcement;
- ▶ homeownership activities such as down payment assistance, interest rate subsidies and loan guarantees for disaster victims;
- ▶ public services (generally limited to no more than 15 percent of the grant);
- ▶ helping businesses retain or create jobs in disaster impacted areas; and
- ▶ planning and administration costs (limited to no more than 20 percent of the grant).

Grants Overview: HUD Community Development Block Grant (CDBG) Disaster Recovery Assistance

- ▶ Example Project: Nebraska Emergency Management Agency-2008 CDBG Disaster Grant
 - ▶ Utilized \$5,557,736 in supplemental CDBG disaster funding for:
 - ▶ Promote Short and Long Term Recovery Planning
 - ▶ Promote High Quality, Durable, Energy Efficient, and Mold Resistant Construction Methods
 - ▶ Provide Adequate, Flood-Resistant Housing for All Income Groups that lived in the Disaster Impacted Areas

Grants Overview: HUD Community Development Block Grant (CDBG) Disaster Recovery Assistance

- ▶ Following the devastating storms of 2008, HUD allocated \$1.3 Billion in CDBG funds to Texas to aid in the recovery
- ▶ The Texas Office of Rural Community Affairs (ORCA) submitted an Action Plan to HUD outlining how the grant will be utilized
- ▶ ORCA has been designated by the state to administer the grant

Grants Overview: ORCA State Disaster Grants

- ▶ Only available to non-entitlement jurisdictions with populations of:
 - ▶ Less than 50,000 for a city, or
 - ▶ Less than 200,000 for a county.
- ▶ State funds (not Federal) can be used for match.

Grants Overview: ORCA State Disaster Grants

Available in Federal or State declared disasters.

- Is a reimbursement program, that pays upon presentation of receipt.
- During Federal disasters—pays 25% of total cost.
- During State disasters—pays 100% of total cost.
- Max of \$350,000 per jurisdiction per disaster.

Grants Overview: ORCA State Disaster Grants

- ▶ Example Project: Cameron County, TX-DR 1439 November 2005, Acquisition and Demolition
 - ▶ Applied for a FEMA HMGP grant to buyout and demo 36 homes
 - ▶ Utilized a State Disaster Grant to fund the local matching funds (25%) for the project making owners

Grants Overview: Hazard Mitigation Grant Program (HMGP)

- ▶ The Hazard Mitigation Grant Program (HMGP) provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration.
- ▶ The purpose is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster.

Grants Overview: Hazard Mitigation Grant Program (HMGP)

- Available statewide in the event of a Federal Disaster Declaration
- No project size limits
 - ▶ Notice of Intent (NOI) and application deadlines are set by the State
- Initiative projects are eligible projects for a total of 5% of the grant
- Private non-profits are eligible applicants

Grants Overview: Hazard Mitigation Grant Program (HMGP)

- ▶ **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.

Grants Overview: Hazard Mitigation Grant Program (HMGP)

Eligible Projects:

- ▶ Acquisition/demolition of hazard-prone properties.
- ▶ Small scale structural hazard control/protection projects;
- ▶ Retrofitting facilities (flood proofing, high-wind, seismic, etc.);
- ▶ Individual safe room rebate program;
- ▶ Elevation of structures above base flood elevations;
- ▶ Initiative projects (public awareness, enhanced warning capabilities, etc.); and
- ▶ Development of state and local mitigation plans.

Grants Overview: Hazard Mitigation Grant Program (HMGP)

- ▶ Example Project: Galveston County 2009
 - ▶ Application 1: \$146.7 million project request for the acquisition and demolition of 783 substantially damaged properties located on the Bolivar Peninsula and Jamaica Beach
 - ▶ Application 2: \$1.4 million for the elevation of 13 properties located throughout the county

Grants Overview: Hazard Mitigation Grant Program (HMGP)

- ▶ Lessons from the Galveston County 2009 HMGP Applications:
 - ▶ Assess the damage early
 - ▶ Define project and get the word out early
 - ▶ Notify eligible owners; direct mail Sub-Dam letters and application instructions ASAP
 - ▶ Cast a wide net, include alternates
 - ▶ Avoid false hope, clearly define priorities

QUESTIONS?

