

GRADD Hazard Mitigation Council

February 11, 2010

Work Session

Executive Summary: Mission

Original Mission

The mission of the GRADD Hazard Mitigation Plan is to promote sound public policy to protect citizens from harm and the environment from damage caused by natural hazards by increasing public awareness and by identifying resources for risk reduction and loss prevention.

Proposed Revision

Through regular maintenance of and updates to the GRADD Hazard Mitigation Plan, the GRADD Hazard Mitigation Council strives to protect citizens, property, and the environment from natural hazard event damages. The Council encourages participation of stakeholders throughout the region in meetings and events designed to increase public awareness. With a commitment to the planning process, the Council seeks and identifies resources for risk reduction and determines actions that will protect all aspects of the region for the future.

Executive Summary: Purpose

Original Purpose of the Plan

- **Save lives and reduce injuries**
- **Reduce property damage**
- **Speed recovery from inevitable disasters**
- **Reduce future vulnerability by planning for development**
- **Expedite both pre-disaster and post-disaster grant funding**
- **Demonstrate a firm commitment to improving community health and safety**

Proposed Revisions

The Council reflected on the intent of the GRADD Hazard Mitigation Plan and targeted the following primary components to define the overall purpose of the plan in its preparation for and response to natural hazard events:

- **Saving lives and diminishing the number of injuries**
- **Reducing property damages**
- **Accelerating recovery efforts**
- **Decreasing and eliminating vulnerabilities through necessary planning and action implementation**
- **Educating communities about funding opportunities and project eligibility**
- **Demonstrating a firm commitment to improving community health and safety**

Executive Summary – Hazard Risk Levels

**As Determined in the Original GRADD Hazard Mitigation Plan
For the GRADD Region**

High Risk Hazards

Flooding

Tornadoes

Moderate Risk Hazards

Severe Thunderstorms

Severe Winter Storms

Earthquakes

Low Risk Hazards

Excessive Heat / Drought

The Planning Process: Incorporation of Existing Plans

Plans Originally Considered

- **County Emergency Operations Plans**
- **Disaster Mitigation Planning Documents (From 2002)**
- **2002 CEDS and Corresponding 2003 and 2004 Updates**
- **Comprehensive Plans (Owensboro, Hancock County, Henderson County, McLean County, Beaver Dam/Hartford)**
- **Kentucky Agricultural Emergency Plan**
- **Long Term Flood Economic Recovery Plan for GRADD**
- **GRADD Emergency Response Plan—Disaster Staff for the Area Agency on Aging**
- **GRADD Water Management Plan**
- **Owensboro, Daviess County, and KYTC Collaborative Storm Water Phase II Plan**
- **Hazard Analysis for Union County (2003)**
- **Natural Hazards Report for the Barren River Area from the Kentucky Climate Center**
- **GRADD Regional Transportation Plan**
- **Western Kentucky PRIDE Proposal**

Additional Plans for Consideration

- **2007 CEDS and Corresponding 2008 and 2009 Updates**
- **2009 GRADD Water Management Plan**
- **2008 Owensboro, Daviess County, and KYTC Collaborative Storm Water Phase II Plan**

The Planning Process: Memorandum of Agreement

Memorandum of Agreement

For the original plan development, each jurisdiction was encouraged to enter into a Memorandum of Agreement to formalize its appointment of a representative to the Hazard Mitigation Council. Jurisdictions, however, were not required to adopt an MOA in order to participate in the Hazard Mitigation Council.

Membership Designation Form

Recommended Revision

GRADD staff have been collecting Membership Designation Forms from each jurisdiction to confirm representatives to the GRADD Hazard Mitigation Council. It is recommended that this form replace the Memorandum of Agreement process associated with the original plan development.

Risk Assessment: Identifying Hazards

Risks Identified in the Original Plan

- **Earthquake**
 - **How Identified: Center for Earthquake Research Institute; Historical Damage; Local Emergency Management Records**
 - **Why Identified: Active faults include New Madrid and Wabash**
- **Excessive Heat/Drought**
 - **How Identified: Local News Articles; Local Emergency Management Records**
 - **Why Identified: Leading cause of death related to natural events**
- **Flooding**
 - **How Identified: Review of past disaster damages from FEMA**
 - **Why Identified: Affects the region frequently**
- **Flash Flooding**
 - **How Identified: Local Emergency Management Records; Public Input; Review of FIRM Maps; Review of Previous Projects in Jurisdictions**
 - **Why Identified: The geographic features show many streams, rivers; Maps show many flood prone areas; Review of existing reports**

Risk Assessment: Identifying Hazards

Risks Identified in the Original Plan

- **Severe Thunderstorms – Wind/Hail**
 - **How Identified:** Review of Past Disaster Damages from FEMA; Public Input and Planning Committees; News Articles
 - **Why Identified:** Many past events in Region; Widespread, affecting all jurisdictions; Substantial NOAA information available
- **Subsidence**
 - **How Identified:** KY Division of Mines Website; Local News Articles
 - **Why Identified:** Every county has undermined areas; Damages has been documented in several counties/communities
- **Severe Winter Storms**
 - **How Identified:** Review of Past Disaster Damages from FEMA; Public Input and Planning Committees; News Articles; Local Emergency Management Records
 - **Why Identified:** Many past events in Region; Variety of events including snow and ice storms
- **Tornadoes**
 - **How Identified:** Review of Past Disaster Damages from FEMA; Review of Hazard Maps from FEMA's hazardmaps.gov site; Public Input; Wind Zone Map of the United States
 - **Why Identified:** Numerous past events; All jurisdictions affected (according to hazardmaps.gov); Local records identified events; Wind Zone Maps show region with highest wind zone +250 mph

Risk Assessment: Identifying Hazards

Risks That Do Not Affect the GRADD Region

From the Original Plan

- **Hurricanes**
 - **How Identified: Review of Past Disaster Damage; Local Emergency Management Records; Public Input; Review of Existing Reports**
 - **Why Identified: Geographical location of the region is not coastal; Region is affected primarily by thunderstorms that are a result of storm systems generated from hurricane systems**
- **Wildfires**
 - **How Identified: Wildfires are Large and Uncontrollable and Burn in Dry, Arid Climates; Review of Maps from Division of Forestry on Fire Danger Class; Public Input; Review of Damages**
 - **Why Identified: Area is affected by grass/brush fires and not wildfires; No damages to life or property in previous occurrences; No historical events or disasters in area**
- **Tsunamis**
 - **How Identified: Tsunami Hazard Maps**
 - **Why Identified: Tsunamis only affect the West Coast**
- **Volcanoes**
 - **How Identified: Research on Volcanoes; Local County Meetings**
 - **Why Identified: No active volcanoes in Green River Region according to hazardmaps.gov**

Risk Assessment: Identifying Hazards

Risks That Do Not Affect the GRADD Region

From the Original Plan

- **Fog**
 - **How Identified: Local County Meetings**
 - **Why Identified: Fog does not directly cause damages to property**
- **Dams/Levees**
 - **How Identified: Local County Meetings; HAZUS Stock Information**
 - **Why Identified: No historical damages; No identified vulnerable areas**
- **Landslides**
 - **How Identified: Local County Meetings; FEMA Hazard Maps**
 - **Why Identified: No historical damages; No identified vulnerable areas**

“This determination does not preclude the plan from including these hazard types in future updates as new information is discovered concerning these types of hazards.”

Risk Assessment: Critical Facilities

Critical Facilities Defined in the Original Plan

“For the purposes of this mitigation plan, the GRADD Hazard Mitigation Council considers critical facilities to be those elements from which essential services and functions for the continuation of public safety actions and disaster recovery are performed or provided.”

Risk Assessment: Critical Facilities

FEMA Definition of Critical Facilities

“Typical critical facilities include hospitals, fire stations, police stations, storage of critical records, and similar facilities.”

Mitigation Strategy

GRADD Hazard Mitigation Plan Goals

From the original GRADD Hazard Mitigation Plan

- 1. Promote public health and safety**
- 2. Protect people and property**
- 3. Improve the quality of life**
- 4. Use public funds efficiently**