

1.0 Introduction

Background

The Houston-Galveston Area Council (H-GAC) region is vulnerable to a wide range of natural hazards, including flooding, tornadoes, tropical storms and hurricanes. It is also vulnerable to a variety of human-caused hazards, including chemical releases, terrorist attacks, and spills or explosions associated with the fixed storage or mobile transport of hazardous materials. These hazards threaten the safety of residents and have the potential to damage or destroy both public and private property, disrupt the local economy and impact the overall quality of life of individuals who live, work and play in the H-GAC region.

While we cannot eliminate natural and human-caused hazards, there is much we can do to lessen their potential impact upon our community and our citizens. The effective reduction of a hazard's impact can decrease the likelihood that such events will result in a disaster. The concept and practice of reducing risks to people and property from known hazards is generally referred to as hazard mitigation.

Hazard mitigation techniques include: structural measures, such as strengthening or protecting buildings and infrastructure from the destructive forces of potential hazards; and, non-structural measures, such as the adoption of sound land use policies or the creation of public awareness programs. Some of the most effective mitigation measures are implemented at the local government level where decisions on the regulation and control of development are made. A comprehensive mitigation strategy addresses hazard vulnerabilities that exist today and in the foreseeable future. Therefore it is essential that projected patterns of development are evaluated and considered in terms of how that growth will increase or decrease a community's overall hazard vulnerability.

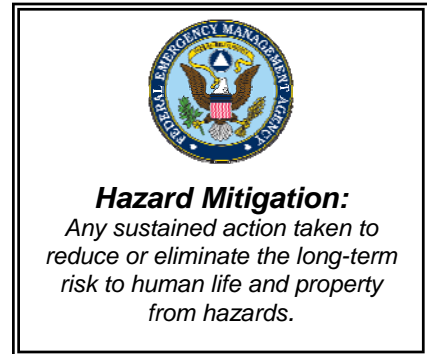
One of the most effective tools a community can use to reduce hazard vulnerability is to develop, adopt, and update as needed, a local hazard mitigation plan. A hazard mitigation plan establishes the broad community vision and guiding principles for reducing hazard risk, including the development of specific mitigation actions designed to eliminate or reduce identified vulnerabilities.

Disaster Mitigation Act of 2000

In an effort to reduce the Nation's mounting natural disaster losses, the United States Congress passed the Disaster Mitigation Act of 2000 (DMA 2000). Section 322 of the Act emphasizes the need for state and local governments to coordinate mitigation planning activities. In addition, the Disaster Mitigation Act requires that states and local governments develop and adopt a hazard mitigation plan in order to be eligible for certain pre- and post-disaster funding by the Federal government. These funds include the Hazard Mitigation Grant Program (HMGP) and the Pre-Disaster Mitigation (PDM) program, both of which are administered by the Federal Emergency Management Agency (FEMA) under the U.S. Department of Homeland Security.

The H-GAC Regional Hazard Mitigation Plan

On April 28, 2006, FEMA and the Texas Division of Emergency Management approved the first H-GAC Regional Hazard Mitigation Plan (hereinafter "Hazard Mitigation Plan" or "Plan"). H-GAC prepared the Plan in coordination with FEMA and the Texas Division of Emergency Management to ensure that the Plan meets all applicable DMA 2000 and state Annex P¹ requirements. The



¹ Annex P requirements are hazard mitigation planning requirements established by the Texas Division of Emergency Management.

Plan included specific mitigation actions (Appendix A). A Local Mitigation Plan Crosswalk, found in Appendix B, provides a summary of federal and state minimum standards and notes the location where each requirement is met within the Plan.

H-GAC updated the Plan in 2011 to re-assess vulnerabilities and increase the number and diversity of mitigation action items. The Plan includes a more robust assessment of wildfire hazards and vulnerability and also revisits repetitive loss data and the lessons learned from the 2008 hurricane season.

Purpose

The purpose of this Hazard Mitigation Plan is essentially to:

- Protect life, safety and property by reducing the potential for future damages and economic losses that result from natural and human-caused hazards;
- Qualify for grant funding in both the pre-disaster and post-disaster environment;
- Speed recovery and redevelopment following future disaster events;
- Demonstrate a firm local commitment to hazard mitigation principles; and
- Comply with state and federal legislative requirements for local hazard mitigation plans.

Scope

The geographic scope of the Plan includes the 78 participating municipalities listed in **Table 1.1**.

The Plan will focus on the following hazards:

- Coastal Erosion
- Dam/Levee Failure
- Drought
- Energy Pipeline Failure
- Excessive Heat
- Flood (Riverine and Coastal)
- Hail
- Hurricanes and Tropical Storms
- Severe Thunderstorms
- Tornadoes
- Toxic Release/Hazardous Materials (HAZMAT)
- Wildfire
- Winter Storms

These hazards were determined to be “high and moderate risk” as determined from a hazard risk assessment conducted in the seven county area.² This enables those counties and cities participating in the Plan to prioritize mitigation actions based on a greater understanding of hazard risk and vulnerability.

² See Section 4: *Risk Assessment*, for a description of hazards, including a comparative ranking of their relative risk.

**Table 1.1
 Participating Jurisdictions**

Jurisdiction		
Houston-Galveston Area Council	City of Quintana	City of Conroe
Austin County	City of Richwood	City of Cut and Shoot
City of Bellville	Village of Surfside Beach	City of Magnolia
City of Brazos Country	City of Sweeny	City of Montgomery
City of Industry	Velasco Drainage District	City of Oak Ridge North
Town of San Felipe	Chambers County	City of Panorama Village
City of Sealy	Chambers-Liberty Counties Navigation District	City of Patton Village
City of Wallis	City of Anahuac	Town of Roman Forest
Brazoria County	City of Beach City	City of Shenandoah
City of Alvin	City of Cove	City of Splendora
City of Angleton	City of Mont Belvieu	City of Stagecoach
City of Bailey's Prairie	City of Old River-Winfree	City of Willis
Village of Bonney	Trinity Bay Conservation District	City of Woodbranch Village
City of Brazoria	Liberty County	The Woodlands Township
City of Brookside Village	City of Ames	Town of Woodloch
City of Clute	City of Cleveland	Walker County
City of Danbury	City of Daisetta	City of Huntsville
City of Freeport	City of Dayton	City of New Waverly
City of Hillcrest Village	City of Dayton Lakes	City of Riverside
Town of Holiday Lakes	City of Devers	Waller County
City of Iowa Colony	City of Hardin	City of Brookshire
City of Jones Creek	City of Kenefick	City of Hempstead
City of Lake Jackson	City of Liberty	City of Pattison
City of Liverpool	City of North Cleveland	Town of Pine Island
City of Manvel	City of Plum Grove	City of Prairie View
City of Oyster Creek	Montgomery County	City of Waller

The Plan also includes 852 locally-specific mitigation actions from 78 participating jurisdictions. Galveston County and cities therein were included in the 2006 Plan; however, Galveston County is not included in the 2011 Plan and its projects are not included in this Plan update. The 2011 Plan update's locally-specific mitigation actions address the hazards mentioned in the Scope of this section but also include several "human-caused" hazards which are not identified elsewhere in the plan. Table 1.2 provides a county breakdown on the status of the 2006 mitigation actions as well as the new 2011 mitigation actions.

**Table 1.2
 Mitigation Actions from 2006 Plan and 2011 Plan Update**

	2006 Mitigation Actions					Total 2006 Mitigation Actions	2011 Mitigation Actions	Total 2006 and 2011
	Complete	In Progress	No Longer Pursuing	Carry On	Carry On With Modification			
H-GAC	0	0	0	3	4	7	10	17
Austin	6	3	7	25	9	50	20	70
Brazoria	54	11	11	54	4	134	129	263
Chambers	6	0	2	5	3	16	32	48
Liberty	6	2	0	65	0	73	40	113
Montgomery	52	1	13	54	31	151	70	221
Walker	0	0	0	27	1	28	40	68
Waller	8	0	0	27	0	35	17	52
Total	132	17	33	257	48	494	358	852

Authority

The Plan, developed in accordance with current state and federal rules and regulations governing local hazard mitigation plans, will be adopted by the 78 participating jurisdictions. The Plan shall be routinely monitored and revised to maintain compliance with the following provisions, rules and legislation:

- Section 322, Mitigation Planning, of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as enacted by Section 104 of the Disaster Mitigation Act of 2000 (P.L. 106-390);
- FEMA's Interim Final Rule published in the Federal Register on February 26, 2002, at 44 CFR Part 201; and
- Texas Department of Public Safety, Division of Emergency Management; the State of Texas Hazard Analysis document; Annex P; and Checklist P.