

APPENDIX D

Hazard Mitigation Planning Tools

This section contains the following documents:

- *Data Acquisition and Categorization Matrix*
- *Identification of Hazards Unique to Individual Jurisdictions*
- *H-GAC Local Capability Assessment Questionnaire*
- *H-GAC Capability Assessment Points System*
- *H-GAC Mitigation Actions Worksheet*
- *Public Participation Survey for Hazard Mitigation Planning*
- *H-GAC Capability Assessment Results*
- *H-GAC Building and Fire Code Information*
- *H-GAC Floodplain Management Program Information*

Data Acquisition and Categorization Matrix

Natural Hazards



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PURPOSE

The purpose of this document is to provide a framework to assist the project team with the collection of data needed to conduct a comprehensive risk assessment supporting mitigation planning efforts as required by the Disaster Mitigation Act of 2000.

GIS DATA COLLECTION AND CATEGORIZATION

In order to facilitate field collection and data analysis, the project team has categorized data into five broad categories consistent with criteria found in FEMA loss estimation models. The five data categories are addressed in separate tables provided below. They are as follows:

- Base Data Requirements
- Inventory Data Requirements
 - Building inventory
 - Critical Facilities
 - Lifelines
- Hazard Data Requirements

In each of the three categories, data are described in a tabular format. Below is a complete list of applicable definitions to help the reader understand the need to collect this data.

- Critical: Data required to obtain risk assessment results using HAZUS-MH and other risk assessment models
- Desirable: Use of this data will improve the quality of risk assessment results or are useful for mitigation planning efforts
- Available: Indicates whether the client has or does not have the data in a form that can be readily used in risk assessment models. (A check mark indicates that data is available)
- Source: Refers to source from which data was collected (such as a database, website, agency, or organization)

BASE DATA REQUIREMENTS

This section contains political, environmental, and base data that are important for general planning purposes. These data provide the project team with vital reference information to assess the baseline data and provide the locally derived geospatial data required for conducting a comprehensive risk assessment. It also contains information that can be used to support hazard modeling and loss estimation.

The Political, Environmental, and Base Data Requirements matrix table (Table 1) contains eight sub-groupings and their data source as follows:

- Political Boundary – political boundaries for the state, city, and outlying areas
- Base Map – planimetric data captured and mapped from aerial photography
- Hydrographic – hydrographic information for streams, creeks, watersheds
- Hypsographic – data that refers to elevations of the earth's surface and relief
- Demographic – U.S. census data on population and housing
- Land Use – datasets such as zoning and land use, which are important for obtaining an understanding of existing building characteristics
- Imagery and Scanned Maps – primarily aerial photography as well as some scanned images utilized by previous flood hazard models
- Administrative – primarily boundary data that outline areas as a unique unit for administrative purposes

Political, Environmental, and Base Data Requirements	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments

Political Boundary						
Administrative Boundaries	✓					
County Boundaries	✓					
City Jurisdiction	✓					
State Counties	✓					
Base Map (Planimetric Data)						
Building Footprints/Points		✓				
Parcel and Lot lines		✓				
Landmarks		✓				
Hydrographic						
Rivers, Creeks, Stream Centerlines	✓					
Lakes, Ponds, and Bodies of Water	✓					
Drainage Basins	✓					
Hypsographic						
Contour Lines	✓					
Digital Elevation Model	✓					
Demographic Data						
Census Blocks	✓					
Census Tracts	✓					
Land Use						
Land Use 90,95,2000	✓					
Zoning	✓					
Parks		✓				
Environmental						
Geology		✓				
Soils		✓				
Wetlands		✓				
Imagery						
BW or Color Orthophotos (mosaics)		✓				

INVENTORY DATA REQUIREMENTS

INVENTORY DATA REQUIREMENT #1: BUILDING INVENTORY

The general building stock will be classified into seven general occupancy classes that include residential, commercial, and industrial buildings. National databases from HAZUS-MH will be utilized to understand the distribution of the general building stock in each jurisdiction.

National building inventory databases will be utilized to aggregate the number, type, and value per U.S. Census Block. The building classification system will group buildings with similar damage and loss characteristics into a set of pre-defined building classes. Damage and loss prediction models will be developed for each model building type across each hazard.

INVENTORY DATA REQUIREMENT #2: CRITICAL FACILITIES

Critical Facilities are those public buildings and operations that provide essential services to the community. This section describes the data required to provide damage and loss estimates for each facility.

Critical facilities must be classified by building structure type and other important characteristics in order to determine the expected economic loss and loss of functionality.

The project team will provide the project leader with a list of the needed attributes for each facility.

Critical Facilities	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments

Critical Facilities						
Medical Care Facilities (hospitals, clinics, and laboratories)	✓					
Nursing Homes (assisted living facilities)	✓					
Schools (elementary, secondary, and university)	✓					
Police and Fire Stations	✓					
Emergency Operation Centers	✓					

DATA REQUIREMENT #3: LIFELINES

The inventory classification scheme for lifeline systems is broken into two separate systems: (1) transportation and (2) utility systems. Each lifeline system has different damage and loss characteristics. The Lifelines Data Requirements data matrix table describes the data required to provide damage and loss estimates for each of the following systems:

- Transportation systems addressed include highways, railways, light rail, bus, ports, ferries, and airports.
- Lifeline utility systems include potable water, wastewater, oil, natural gas, electric power, and communication systems.

A list of needed attributes for each lifeline will be provided to the project lead for collection. The project team realizes that the collection of these data might be difficult as many utility companies are not willing to share information due to increased security concerns.

Transportation Facilities	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments
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Transportation Facilities						
Highway Systems (roads, bridges, tunnels)	✓					
Railway Systems (facilities, tracks, bridges, tunnels)	✓					
Ports and Harbor Facilities	✓					
Airport Facilities and Runways	✓					
Public Transportation System Facilities	✓					
Light Rail Systems (facilities, tracks, bridges, tunnels)	✓					

Utility Facilities	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments
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Transportation Facilities						
Wastewater Facilities and Pipelines	✓					
Potable Water Facilities and Pipelines	✓					
Natural Gas Facilities and Pipelines	✓					
Crude and Refined Oil Facilities and Pipelines	✓					
Electric Power Facilities and Transmission Lines	✓					
Communication Facilities and Lines	✓					

HAZARD DATA REQUIREMENTS

This section describes the hazard data that are required for the development of a comprehensive risk assessment. By gathering data for individual hazards, the project team will systematically address the potential impacts associated with each hazard. To conduct the risk assessment effort, two distinct hazard risk assessment methods will be utilized.

The **HAZUS-MH risk assessment methodology** is parametric, in that distinct hazard *parameters* (for example, wind speed) were modeled. This model will be utilized for *hazards that are known to occur in a definable jurisdiction*. For hazards where a spatial component (geographic area extent) could be defined, the number and types of buildings, infrastructure and critical facilities located in a hazard area will be assessed. This methodology will be utilized to estimate losses due to:

- Riverine Flood
- Coastal Flood
- Earthquake
- Hurricane Winds

In addition, a **statistical risk assessment methodology** will be applied to analyze *hazards that could not be determined geographically* or those in which insufficient data exists to display hazard information spatially (on a map). This methodology uses a statistical approach and expert mathematical modeling of risk to predict a hazard's frequency of occurrence and estimate impacts and intensity based on recorded or historic damage data. The hazards that will be assessed using this methodology include:

- Tornado Winds
- Hailstorm
- Severe Winter Storm
- Thunderstorm
- Wildfire
- Drought

Using this approach, the project team will begin immediately processing data. Where data gaps still exist, the project team will work to collect additional information from the appropriate sources and/or utilize proprietary hazard and weather databases. The Hazard Data Requirements data matrix table contains a description of the required data sets for 10 hazards including:

1. Riverine Flood
2. Coastal Flood
3. Earthquake
4. Hurricane Winds
5. Tornado Winds
6. Hailstorm
7. Severe Winter Storm
8. Thunderstorm
9. Wildfire
10. Drought

Flood	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments
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Flood						
100 Yr. Flood Boundary Map	✓					
500 Yr. Flood Boundary Map	✓					
Base Flood Elevation	✓					
Historical Flood Event Information		✓				
Damage Data from Historical Flood Events of the Area		✓				
Repetitive Losses, per municipality		✓				

Flood Assessment Output

Identifying Hazards

Sources – describe sources of information used to identify the hazards

Data – limitations and method utilized to assess the hazard

Description of Hazard (characteristics)

Profiling Hazards

Profile – qualitative description of how the flood hazard can affect the jurisdiction (i.e. greatest potential of damage is residential homes in eastern part of study region)

History – provide table of previous occurrences/damages of flood hazard event in jurisdiction

Hazard Map – depicting geographic extent of flood area (% of land affected by 100-year and 500-year events)

Hazard frequency – describe hazard frequency based on hazard history with jurisdiction

Assessing Vulnerability - Provide description of overall impact of hazard

Identifying Assets:

Types and numbers of buildings (Res, Com, Ind, Gov, Rel, Edu, and Ag) in hazard area,

Critical Facilities (Physical and Monetary Damage States)

Estimating Losses:

Monetary Losses (Res, Com, Ind, Gov, Rel, Edu, and Ag Monetary Losses)

Losses to Contents

Critical Facilities (Physical Damage States, Functionality %)

Damage Profile (recurrence curve)

Future Losses:

Provide a flood map with zoning and land use – describe how future growth will affect flood vulnerability

Coastal Flooding	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments

Flood						
Coastal High Hazard Area-VE Zones	✓					
Base Flood Elevation	✓					
Still water elevation (High water marks)		✓				
High water marks from historical events		✓				
Damage Data from Historical Flood Events	✓					
Coastal Erosion		✓				
SLOSH Models	✓					

Coastal Flood Assessment Output

Identifying Hazards

Sources – describe sources of information used to identify the hazards

Data – limitations and method utilized to assess the hazard

Description of Hazard (characteristics of coastal flooding, velocity)

Profiling Hazards

Profile – qualitative description of how the flood hazard can affect the jurisdiction (i.e. greatest potential of damage is residential homes in eastern part of study region)

History – provide table of previous occurrences/damages of flood hazard event in jurisdiction

Hazard Map – depicting geographic extent of flood area (% of land affected by storm surge per 100-year, 500-year return period if possible)

Hazard frequency – describe hazard frequency based on hazard history or return period within jurisdiction

Assessing Vulnerability - Provide description of overall impact of hazard

Identifying Assets:

Types and numbers of buildings (Res, Com, Ind, Gov, Rel, Edu, and Ag),

Critical Facilities (Physical and Monetary Damage States)

Estimating Losses:

Monetary Losses (Res, Com, Ind, Gov, Rel, Edu, and Ag Monetary Losses)

Losses to Contents and Time Element

Critical Facilities (Physical Damage States, Functionality %)

Damage Profile (recurrence curve)

Future Losses:

Provide a flood map with zoning and land use – describe how flood will affect future growth

Earthquake	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments

Earthquake						
2003 USGS Probabalistic Hazard Maps	✓					
Catalog of Historical Earthquakes	✓					
Map of Historical Epicenters	✓					

Earthquake Assessment Output

Identifying Hazards

Sources – describe sources of information used to identify the hazards. This should include key earthquake hazard terms (i.e. what is probabilistic hazard map, differences between PGA and SA, etc.)

Data – limitations and method utilized to assess the hazard

Description of Hazard (characteristics of earthquake risk of the study area)

Profiling Hazards

Profile – qualitative description of how the earthquakes can affect the jurisdiction (i.e. greatest potential of damage is commercial buildings)

History – provide tabular report of historical earthquakes in region, state, and county (previous occurrences/damages).

Hazard Map – depicting geographic extent of earthquake risk (either epicenters or hazard map depicting PGA or SA intensity) – ideally we would need a susceptibility map depicting hazard intensity throughout study region

Hazard frequency – describe hazard frequency based on hazard history and/or hazard map within the jurisdiction

Assessing Vulnerability - Provide description of overall impact of hazard

Identifying Assets:

Types and numbers of buildings (Res, Com, Ind, Gov, Rel, Edu, and Ag),

Losses to Contents and Time Element

Critical Facilities (Physical and Monetary Damage States)

Estimating Losses:

Monetary Losses (Res, Com, Ind, Gov, Rel, Edu, and Ag Monetary Losses)

Losses to Contents and Time Element

Critical Facilities (Physical Damage States, Functionality %)

Damage Profile (recurrence curve)

Future Losses:

Provide a hazard susceptibility map with zoning and land use – or describe how earthquake hazard will affect areas that are designated for future growth.

Wind Hurricane	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments
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Wind (Hurricane)						
NOAA Probabilistic Hazard Maps	✓					
Historical Hurricane Events and Tracks for the Area	✓					

Wind (Hurricane) Assessment Output

Identifying Hazards

- Sources – describe sources of information used to identify the hazards
- Data – limitations and method utilized to assess the hazard
- Description of Hazard (characteristics of wind hazard specific to study area)

Profiling Hazards

- Profile – qualitative description of how the wind storms/hurricanes can affect the jurisdiction (i.e. greatest potential of damage is commercial buildings)
- History – provide tabular report of historical hurricanes in state and county (previous occurrences/damages).
- Hazard Map – depicting geographic extent of wind storm risk (hazard map depicting 100-year and 500-year wind intensity) – if there are local characteristics that increase or decrease wind speeds – these should be mapped.
- Hazard frequency – describe hazard frequency based on hazard history and/or hazard map within the jurisdiction

Assessing Vulnerability - Provide description of overall impact of hazard

Identifying Assets:

- Types and numbers of buildings (Res, Com, Ind, Gov, Rel, Edu, and Ag),
- Losses to Contents and Time Element
- Critical Facilities (Physical and Monetary Damage States)

Estimating Losses:

- Monetary Losses (Res, Com, Ind, Gov, Rel, Edu, and Ag Monetary Losses)
- Losses to Contents and Time Element
- Critical Facilities (Physical Damage States, Functionality %)
- Damage Profile (recurrence curve)

Future Losses:

<h1>Tornado</h1>	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments

Tornado						
Historical Tornado Events (#, Date of Occurrence, Location, Type, Damages, \$\$)	✓					
Historical Tornado Track Map		✓				
Description of Historical Damage Data	✓					

Tornado Assessment Output

Identifying Hazards

Sources – describe sources of information used to identify the hazards

Data – limitations and method utilized to assess the hazard

Description of Hazard (characteristics of tornados specific to study area)

Profiling Hazards

Profile – qualitative description of how tornados can affect the jurisdiction

History – provide tabular report of historical tornados in state and county (previous occurrences/damages)

Hazard Map – intensity/frequency grid depicting national data, and historical tornado track map

Hazard frequency – describe hazard frequency based on hazard history

Assessing Vulnerability - Provide description of overall impact of hazard

Identifying Assets:

Event intensity profile (i.e., F1 damage potential)

Estimating Losses:

Aggregated Monetary Losses (Res, Com, Ind, Gov, Rel, Edu, and Ag Monetary Losses)

Injury and casualties

Damage Profile (recurrence curve)

Future Losses:

Hail Storm	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments
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Hail Storm						
Historical Hail Events (#, Date of Occurrence, Location, Type = Size, Damages)	✓					

Hail Storm Assessment Output

Identifying Hazards

- Sources – describe sources of information used to identify the hazards
- Data – limitations and method utilized to assess the hazard
- Description of Hazard (characteristics of hail storms specific to study area)

Profiling Hazards

- Profile – qualitative description of how hail storms can affect the jurisdiction
- History – provide tabular report of historical hail in state and county (previous occurrences/damages)
- Hazard Map – intensity/frequency grid depicting national data
- Hazard frequency – describe hazard frequency based on hazard history

Assessing Vulnerability - Provide description of overall impact of hazard

Identifying Assets:

Event intensity profile (Probability Frequency and Intensity of Different Storms: Hail Size, Duration, and Number of Hails per square foot - comparison of regional Hail Hazard data to National Hail Hazard data)

Estimating Losses:

- Aggregated Monetary Losses (Res, Com, Ind, Gov, Rel, Edu, and Ag Monetary Losses)
- Damage Profile (recurrence curve)

Future Losses:

Severe Winter Storm	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments
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Severe Winter Storm						
Historical Winter Storms Events (#, Date of Occurrence ,Location, Type = Ice & Snow, and Damages	✓					

Severe Winter Storm Assessment Output

Identifying Hazards

Sources – describe sources of information used to identify the hazards

Data – limitations and method utilized to assess the hazard

Description of Hazard (characteristics of winter storms specific to study area)

Profiling Hazards

Profile – qualitative description of how winter storms can affect the jurisdiction

History – provide tabular report of historical winter storms in state and county (previous occurrences/damages)

Hazard Map – no spatial component to hazard

Hazard frequency – describe hazard frequency based on hazard history

Assessing Vulnerability - Provide description of overall impact of hazard

Identifying Assets:

Event intensity profile (Probability Frequency and Intensity of Different Storms -comparison of regional winter storm hazard data to national winter storm data to obtain understanding of intensity)

Estimating Losses:

Aggregated Monetary Losses (Res, Com, Ind, Gov, Rel, Edu, and Ag Monetary Losses)

Damage Profile (recurrence curve)

Future Losses:

Drought	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments
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Drought						
History of Regional Drought Conditions (Date, \$ Loss, Severity, Duration)	✓					
Crop Typology, Acreage, yield per acre (historical record)		✓				
Palmer Drought Severity Index		✓				
Drought Monitor summary map		✓				

Drought Assessment Output

Identifying Hazards

Sources – describe sources of information used to identify the hazards

Data – limitations and method utilized to assess the hazard

Description of Hazard (characteristics of drought specific to study area – water, agricultural, etc. describe type of drought)

Profiling Hazards

Profile – qualitative description of how drought can affect the jurisdiction

History – provide tabular report of drought in state and county (previous occurrences/damages)

Hazard Map – Palmer Drought Severity Index. Drought Monitor summary map

Hazard frequency – describe hazard frequency based on hazard history

Assessing Vulnerability - Provide description of overall impact of hazard

Identifying Assets:

Event intensity profile (Palmer Drought Severity Index)

Estimating Losses:

Aggregated Monetary Losses (Res, Com, Ind, Gov, Rel, Edu, and Ag Monetary Losses)

Damage Profile (recurrence curve)

Future Losses:

Thunder storm	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments
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Thunderstorm						
Historical thunderstorms Events (#, Date of Occurrence, and Damages)	✓					

Thunderstorm Assessment Output

Identifying Hazards

- Sources – describe sources of information used to identify the hazards
- Data – limitations and method utilized to assess the hazard
- Description of Hazard (characteristics of thunderstorms specific to study area)

Profiling Hazards

- Profile – qualitative description of how thunderstorms can affect the jurisdiction
- History – provide tabular report of historical thunderstorms in state and county (previous occurrences/damages).
- Hazard Map – no spatial component to hazard
- Hazard frequency – describe hazard frequency based on hazard history

Assessing Vulnerability - Provide description of overall impact of hazard

Identifying Assets:

- Event intensity profile (Probability Frequency and Intensity of thunderstorms)

Estimating Losses:

- Aggregated Monetary Losses (Res, Com, Ind, Gov, Rel, Edu, and Ag Monetary Losses)
- Damage Profile (recurrence curve)

Future Losses:

Wildfire	Critical	Desirable	Available	Specify Format GIS/Tabular/ non-digital	Data Source	General Comments
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Wildfire						
Historical Wildfire Events (#, Date of Occurrence, Location, Acreage, and Damages)	✓					
Map location of wildfires in state		✓				
Land Cover Map (vegetative, forested lands)		✓				
Fire Monitoring Stations		✓				

Wildfire Assessment Output

Identifying Hazards

Sources – describe sources of information used to identify the hazards

Data – limitations and method utilized to assess the hazard

Description of Hazard (characteristics of wildfires specific to study area given fuel types)

Profiling Hazards

Profile – qualitative description of how wildfires can affect the jurisdiction

History – provide tabular report of historical wildfires in state and county (previous occurrences/damages)

Hazard Map – map location of wildfires in state (points or polygons), develop wildfire hazard map - overlay exposure

Hazard frequency – describe hazard frequency based on hazard history

Assessing Vulnerability - Provide description of overall impact of hazard

Identifying Assets:

Event intensity profile (Probability Frequency and Intensity of thunderstorms)

Estimating Losses:

Aggregated Monetary Losses (Res, Com, Ind, Gov, Rel, Edu, and Ag Monetary Losses) – if spatial component is defined damages and losses could be shown across general occupancy classes

Damage Profile (recurrence curve)

Future Losses:

CAPABILITY ASSESSMENT FINDINGS
H-GAC Regional Mitigation Plan

	Jurisdiction	Survey	GCI	NFIP	CRS	BCEGS	HMP	DRP	CZMP	CLUP	FMP	SMP	EOP	COOP	REP	SARA	TRANS	CIP	REG-PL	HPP	ZO	SO	FDPO	BC	FC	RIP/WET	BUFF	ACQUIS	NGOs	OS/FOR	PUB/PRI	RAW SCORE	TECH	FISC	ADMIN	POLI	FINAL SCORE	2000 Population
1	City of La Marque	1		2	0	2	3	2	0	1	2	2	2	2	3	1	1	0	2	0	1	1	Y	1	1	0	0	1	1	0	1	32	1	0	1	1	35	13,682
2	City of Galveston	1		2	0	2	3	2	1	2	0	0	2	2	3	3	0	0	2	1	1	1	Y	1	1	0	0	0	0	0	1	30	0	0	1	1	32	57,247
3	City of Lake Jackson	1		2	0	2	0	1	1	2	2	2	1	1	1	1	1	1	1	0	1	1	N	1	1	0	0	1	1	0	1	26	2	1	1	1	31	26,386
4	City of Conroe	1	1	2	3	2	3	0	0	0	0	2	2	0	3	3	0	1	2	0	0	1	Y	1	1	0	0	0	0	0	0	26	1	1	1	1	30	36,811
5	Galveston County	1	1	2	0	0	3	2	1	0	0	0	2	2	3	3	1	1	2	0	0	1	Y	0	0	0	0	0	0	0	1	24	0	2	2	2	30	250,158
4	City of Alvin	1	1	2	0	0	0	2	0	2	2	0	2	2	3	3	1	0	2	0	0	1	Y	1	1	0	0	0	0	0	0	26	1	1	2	0	30	
6	City of Freeport	1	1	2	0	2	0	1	0	0	2	0	1	1	3	3	0	0	2	0	1	1	Y	1	1	0	0	0	1	0	1	23	1	2	2	1	29	12,708
7	City of Manvel	1	1	2	0	0	0	2			2		2	2				1	2		1	1	N	1	1	2	1	1	1	1	24	0	0	2	2	28	3,046	
7	City of Huntsville	1	1	2	0	2	0	0	0	1	2	2	0	0	0	0	1	0	2	0	1	1	Y	1	1	0	0	1	0	0	17	0	0	2	0	19	35,078	
8	City of Tiki Island	1		2	3	0	1	2	0	0	2	2	2	0	0	3	1	0	2	0	0	0	Y	1	1	0	1	0	1	0	1	25	1	1	1		28	1,016
9	Austin County	1	1	2	0	0	3	2	0	0	2	0	2	2	3	3	1	0	2	0	0	1	Y	0	0	0	0	0	1	0	1	25	0	0	0	2	27	23,590
10	Brazoria County	1	1	2	0	0	0	2	1	0	2	0	2	2	3	3	1	0	0	0	0	1	Y	0	1	2	0	1	0	0	1	24	1	1	1	0	27	241,767
11	Montgomery County	1		2	0	0	3	2	0	0	2	2	2	2	3	3	1	0	2	0	0	0	?	0	0	0	0	0	0	0	1	25	1	0	1	0	27	293,768
12	City of Dickinson	1	1	2	0	2	0	2	0	0	2	0	2	2	3	3	0	0	2	0	1	1	Y	1	1	0	0	0	0	0	1	25	0	0	0	1	26	17,093
13	City of Sealy	1		2	0	3	3	1	0	1	2	2	1	1	1	1	1	1	2	0	0	1	Y	1	1	0	0	0	0	0	1	26	0	0	0	0	26	5,248
14	City of Bellville	1	1	2	0	2	1	0	0	0	1	2	1	1	1	1	1	0	2	0	0	1	Y	1	1	0	0	1	0	0	19	1	2	2	1	25	3,794	
15	City of Clear Lake Shores	1	1	2	0	2	3	2	0	0	0	0	2	2	0	0	1	0	2	0	1	0	Y	1	1	0	0	1	0	0	1	21	1	0	1	1	24	1,205
16	City of Kemah	1	1	2	3	3	1	1	0	0	2	1	1	2	3	0	1	0	0	0	0	1	Y	1	1	0	0	1	0	0	24	0	0	0	0	24	2,330	
17	City of Oak Ridge North	1		2	0	0	3	2	0	2	2	2	2	0	0	0	0	0	2	0	1	1	Y	1	1	0	0	1	0	1	0	23	1	0	0	0	24	2,991
18	Liberty County	1	1	2	0	0	0	0	0	0	2	2	2	2	0	3	1	1	2	0	0	1	Y	0	1	0	0	0	0	1	1	21	1	1	1	0	24	70,154
19	City of Brookside Village	1		2	0	0	0	2	1	2	2	2	2	0	0	0	0	1	2	0	1	1	Y	1	1	0	0	0	0	0	20	0	1	1	1	23	1,960	
20	City of Cleveland	1	1	2	0	2	3	0	0	0	2	0	2	2	3	0	1	0	0	0	0	1	Y	1	1	0	0	1	0	0	21	0	0	1	0	22	7,605	
21	City of Dayton	1	1	2	0	3	0	0	0	1	2	2	1	0	0	0	1	1	2	0	0	1	Y	1	1	0	0	0	0	1	0	19	0	1	1	1	22	5,709
22	City of Liberty	1	1	2	0	2	3	2	0	0	0	0	2	0	3	3	0	0	2	0	0	1	N	1	1	0	0	0	0	0	22	0	0	0	0	22	8,033	
23	City of Mont Belvieu	1		2	0	2	0	0	1	0	2	0	2	2	3	3	0	0	2	0	0	1	Y	0	1	0	0	0	0	0	21	0	0	0	0	21	2,324	
24	City of Prairie View	1		2	0	0	0	0	0	0	2	0	2	0	3	3	0	0	0	0	1	1	N	1	1	0	0	1	1	0	1	19	0	0	1	1	21	4,410
25	City of Shenandoah	1		2	0	0	3	0	0	2	2	2	2	0	0	0	0	1	0	1	1	1	N	1	1	0	0	0	0	0	19	0	1	1	0	21	1,503	
26	City of Sweeny	1		2	0	0	0	2	0	0	2	0	2	0	3	3	0	0	0	0	0	1	Y	1	0	0	0	0	0	0	16	0	1	2	2	21	3,624	
27	Chambers County	1		2	0	0	0	0	1	0	2	0	2	2	3	3	0	0	2	0	0	1	Y	0	0	0	0	0	0	0	18	0	0	0	0	18	26,031	
28	City of Anahuac	1		2	0	0	0	0	1	0	2	0	2	2	3	3	0	0	2	0	0	1	Y	0	0	0	0	0	0	0	18	0	0	0	0	18	2,210	
29	City of Beach City	1		2	0	0	0	0	1	0	2	0	2	2	3	3	0	0	2	0	0	1	Y	0	0	0	0	0	0	0	18	0	0	0	0	18	1,645	
30	City of Jamaica Beach	1	1	2	0	0	1	2	0	0	2	0	1	0	0	0	0	0	0	0	1	0	Y	1	1	2	1	0	0	0	1	15	1	1	1	0	18	1,075
31	City of Old River-Winfree	1		2	0	0	0	0	1	0	2	0	2	2	3	3	0	0	2	0	0	1	Y	0	0	0	0	0	0	0	18	0	0	0	0	18	1,364	
32	City of Richwood	1		2	0	0	0	0	0	2	2	0	1	0	1	1	0	0	0	0	1	1	Y	1	0	0	0	0	0	0	12	2	2	2	0	18	3,012	

CAPABILITY ASSESSMENT FINDINGS
H-GAC Regional Mitigation Plan

	Survey	GCI	NFIP	CRS	BCEGS	HMP	DRP	CZMP	CLUP	FMP	SMP	EOP	COOP	REP	SARA	TRANS	CIP	REG-PL	HPP	ZO	SO	FDPO	BC	FC	RIP/WET	BUFF	ACQUIS	NGOs	OS/IFOR	PUB/PRI	RAW SCORE	TECH	FISC	ADMIN	POLI	FINAL SCORE	2000 Population	
33	Town of San Felipe	1	1	2	0	0	1	2	0	0	1	0	1	1	1	1	0	2	0	0	0	N	1	0	2	0	0	0	0	1	17	0	0	0	1	18	868	
34	City of Brazos Country	1	1	2	0	0	3	1	0	0	2	0	1	1	1	1	0	2	0	0	0	Y	0	0	0	0	0	0	0	1	16	0	0	0	1	17	442	
35	City of Montgomery	1	1	2	0	0	1	1	0	1	1	2	1	0	0	0	0	2	0	1	1	Y	1	1	0	0	0	0	0	15	0	0	0	2	17	489		
36	City of Quintana	1		2	0	0	0	2	1	0	1	0	1	0	0	1	0	0	0	1	1	Y	1	1	2	0	0	0	0	14	2	0	0	1	17	38		
37	City of Wallis	1	1	2	0	0	1	1	0	0	2	0	1	1	1	1	0	2	0	0	1	Y	1	0	0	0	0	1	0	17	0	0	0	0	17	1,172		
38	City of Cove	1		0	0	0	0	0	1	0	2	0	2	2	3	3	0	0	2	0	0	1	Y	0	0	0	0	0	0	16	0	0	0	0	16	323		
39	City of Panorama Village	1	1	2	0	0	0	1	0	0	2	2	0	0	0	0	0	2	0	1	1	Y	1	1	0	0	0	0	0	13	0	0	2	1	16	1,965		
40	City of Willis	1		2	0	0	0	0	0	2	0	2	2	0	1	1	0	0	0	0	1	Y	1	1	0	0	1	0	0	14	0	0	2	0	16	3,985		
41	City of Brazoria	1	1	2	0	2	0	0	0	1	2	0	0	0	0	0	0	2	0	0	1	Y	1	0	0	0	0	1	0	12	0	0	1	1	14	2,787		
42	City of Hitchcock	1		2	0	2	0	0	0	0	0	1	0	1	1	0	0	2	0	1	1	N	1	1	0	0	0	0	0	13	0	0	0	0	13	6,386		
43	City of Iowa Colony	1		2	0	0	0	0	0	1	2	0	2	0	1	0	0	1	0	0	1	1	N	1	0	0	0	0	0	12	0	0	0	0	12	804		
44	Vilage of Surfside Beach	1		2	0	0	0	2	1	2	2	0	1	0	1	1	0	1	0	0	1	1	Y	1	0	0	1	1	1	0	1	20	0	0	0	0	20	763
45	City of Hempstead	1	1	2	0	0	0	0	0	0	0	2	0	0	0	0	1	2	0	1	1	Y	1	0	0	0	0	0	0	10	0	0	0	1	11	4,691		
46	City of Oyster Creek	1	1	2	0	0	1	0	0	0	0	0	1	1	0	1	0	0	2	0	1	1	Y	1	0	0	0	0	0	11	0	0	0	0	11	1,192		
47	Town of Roman Forest	1	1	2	0	0	3	0	0	0	0	2	0	0	0	0	0	0	0	0	1	N	1	0	0	0	1	0	0	10	0	0	0	1	11	1,279		
48	City of Splendora	1		2	0	0	3	0	0	0	0	0	2	0	0	0	1	0	0	0	1	Y	1	0	0	0	0	0	0	10	0	0	0	0	10	1,275		
49	City of Brookshire	1		2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	N	1	1	0	0	0	0	0	8	0	0	0	0	8	3,450		
50	City of Ames	1	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	1	N	1	1	0	0	0	0	0	7	0	0	0	0	7	1,079		
51	Waller County	1	1	2	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	1	N	0	0	0	0	0	0	0	7	0	0	0	0	7	32,663		
52	City of Bayou Vista	1		2	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0	6	0	0	0	0	6	1,644		
53	Town of Cut and Shoot	1		2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	N	1	0	0	0	0	0	0	6	0	0	0	0	6	1,158		
54	City of Angleton			2	0	3																							5					5	18,130			
55	City of Clute			2	0	3																							5					5	10,424			
56	City of Holiday Lakes	1	1	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	N	0	0	0	0	0	0	0	5	0	0	0	0	5	1,095		
57	City of Bailey's Prairie			2	0	0																							2					2	694			
58	City of Bonney			2	0	0																							2					2	384			
59	City of Daisetta	1		2	0	0	3	0	0	0	2	0	2	0	0	3	0	0	2	0	0	N	0	0	0	0	0	0	1	15	0	0	0	0	15	1,034		
60	City of Danbury			2	0	0																							2					2	1,611			
61	City of Dayton Lakes			2	0	0																							2					2	101			
62	City of Hardin	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0	2	0	0	0	0	2	755		
63	City of Hillcrest Village			2	0	0																							2					2	722			
64	City of Jones Creek			2	0	0																							2					2	2,130			
65	City of Liverpool			2	0	0																							2					2	404			
66	City of Magnolia			2	0	0																							2					2	1,111			

**CAPABILITY ASSESSMENT FINDINGS
H-GAC Regional Mitigation Plan**

Jurisdiction		Survey	GCI	NFIP	CRS	BCEGS	HMP	DRP	CZMP	CLUP	FMP	SMP	EOP	COOP	REP	SARA	TRANS	CIP	REG-PL	HPP	ZO	SO	FDPO	BC	FC	RIP/WET	BUFF	ACQUIS	NGOs	OS/FOR	PUB/PRI	RAW SCORE	TECH	FISC	ADMIN	POLI	FINAL SCORE	2000 Population																						
67	City of Manvel			2	0	0																																2	3,046																					
68	City of New Waverly			2	0	0																																	2	950																				
69	City of Pattison	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	N	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	447																					
70	City of Patton Village			2	0	0																																	2	1,391																				
71	City of Plum Grove			2	0	0																																	2	930																				
72	City of Riverside			2	0	0																																	2	425																				
73	Walker County			2	0	0																																	2	61,758																				
74	City of Devers	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	416																				
75	City of Industry	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	304																					
76	City of North Cleveland			0	0	0																																	0	263																				
77	City of Pine Island	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	849																					
78	City of Waller	1	1	2	0	0	0	2	0	0	2	0	2	0	0	0	0	0	2	0	0	1	Y	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,092																				
79	The Woodlands			0	0	0																																	0																					
80	Town of Kenefick			0	0	0																																	0	667																				
TOTAL		63	35																																																									

POINTS SYSTEM:	Up to 3 points	Up to 2 points	Up to 1 point	No points
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Jurisdiction	County	Adopted Building Codes	Current Building Code (Date and Type)
Austin County	Austin	No	NA
Bellville	Austin	Yes	International Building Code - adopted 4/18/00
Brazos Country Industry	Austin	No	NA
San Felipe	Austin	Yes	Southern Building Code - adopted 5/4/99 - Ordinance No. 199-3
Sealy	Austin	Yes	IBC - 10/16/02
Wallis	Austin	Yes	SBCCI - adopted 6/1/75
Brazoria County	Brazoria	No	NA
Alvin	Brazoria	Yes	No answer
Angleton	Brazoria		
Bailey's Prairie	Brazoria		
Bonney	Brazoria		
Brazoria	Brazoria	Yes	International Standard Building Code - adopted 2000
Brookside Village	Brazoria	Yes	Southern Building Code - adopted 1968
Clute	Brazoria		
Danbury	Brazoria		
Freeport	Brazoria	Yes	SBCCI - adopted in the 1960's

Hillcrest Village	Brazoria		
Holiday Lakes	Brazoria	No	Building Ordinance
Iowa Colony	Brazoria	Yes	IRC - adopted 2000
Jones Creek	Brazoria		
Lake Jackson	Brazoria	Yes	International Building Code - adopted 2000
Liverpool	Brazoria		
Manvel	Brazoria	Yes	SBCCI and ICBO
Oyster Creek	Brazoria	Yes	Standard Building Code - originally adopted codes in 1987
Quintana	Brazoria	Yes	SBCCI - originally adopted codes in 1976
Richwood	Brazoria	Yes	International Building Code
Surfside Beach	Brazoria	Yes	SBCCI - originally adopted codes in 1994
Sweeny	Brazoria	Yes	International Building Code - 2000
Chambers County	Chambers	No	NA
Cove	Chambers		
Anahuac	Chambers		
Beach City	Chambers		
Old River-Winfree	Chambers/Liberty		
Mont Belvieu	Chambers/Liberty		
Galveston County	Galveston	No	NA
Bayou Vista	Galveston	No answer	No answer
Clear Lake Shores	Galveston	Yes	International Building Code (2000)
Dickinson	Galveston	Yes	SBCCI and IBC
Galveston	Galveston	Yes	2000 International Codes
Hitchcock	Galveston	Yes	Southern Building Code promulgated by the Southern Building Code Congress and International - first adopted in 1968
Jamaica Beach	Galveston	Yes	International Building Code - adopted 12/3/01

Kemah	Galveston	Yes	ICBO - adopted July 91 - amended 3/2/00
La Marque	Galveston	Yes	Standard Code - adopted in the 70's
Tiki Island	Galveston	Yes	ICC 2000 - codes first adopted in 1983
Liberty County	Liberty	No	NA
Ames	Liberty	Yes	SBCCI
Cleveland	Liberty	Yes	IBC (2000) - originally adopted codes in 1976
Daisetta	Liberty	No	NA
Dayton	Liberty	Yes	IBC (2000) - originally adopted codes in 1991
Dayton Lakes	Liberty		
Devers	Liberty	No	NA
Hardin	Liberty	No	NA
Kenefick	Liberty		
Liberty	Liberty	Yes	ICC - 2002
North Cleveland	Liberty		
Plum Grove	Liberty		
Montgomery County	Montgomery	No	NFIP and septic only
Conroe	Montgomery	Yes	ICC - adopted 2002
Cut and Shoot	Montgomery	Yes	International Residential Code and National Electrical Code - adopted Dec 01 to comply with Chapter 214 LGC Subchapter G
Magnolia	Montgomery		
Montgomery	Montgomery	Yes	International Residential Code - 2001
Oak Ridge North	Montgomery	Yes	International Building Code

Panorama Village	Montgomery	Yes	SBCCI - adopted in 1972
Patton Village	Montgomery		
Roman Forest	Montgomery	Yes	Standard Building Code - adopted 1975
Shenandoah	Montgomery	Yes	ICC
Splendora	Montgomery	Yes	SBCCI - unsure of adoption date
The Woodlands	Montgomery		
Willis	Montgomery	Yes	SBCCI (1997) - adopted 4/21/98
Walker County	Walker	No	
Huntsville	Walker	Yes	International Building Code(2000) - adopted Feb 02
Riverside	Walker		
New Waverly	Walker		
Waller County	Waller	No	NA
Brookshire	Waller	Yes	ICC
Hempstead	Waller	Yes	Southern Building Code 9/22/98
Pattison	Waller	Yes	Southern Building Code (99) 10/10/02
Pine Island	Waller	No	NA
Prairie View	Waller	Yes	SBCCI - adopted 2000
Waller	Waller/Harris	Yes	ordinance 280 - 11/11/02 and ordinance 281 - 11/11/02 - ICC

Describe Inspection/Permit Process	Number and Qualifications of Inspectors	Number of Building Starts During Past 12 Months	Number of Inspections Conducted During Past 12 Months
NA	NA	NA	NA
	1 - certified	38	152
NA	NA	8	NA
NA	NA	NA	NA
Application is given to council. Site plan(s) inspected and approved at the next council session.		1	5
Plan review - permit issued, site inspection, stake-out inspection, foundation, rough-in electrical, plumbing, taps, framing, top-out plumbing, intermediate electrical, final plumbing, electrical mechanical and building.		2	33
Inform them of the set-back lines from property line and then inspect from there.		2	4
NA	NA	NA	NA
No answer		2.5	A lot
Submit plans, inspection based on plans, inspections are foundation, framing, eltrical and plumbing prior to cover-up, pre-final walk though and final for CO		7	6
On site inspections during all stages after plan review	1 - part-time - certified		20-24
Permits are issued prior to construction. Inspections ongoing	1 - certified	25	25

		0	0
	1 - certified	4	25
Building permits are not issued until all plans have been approved by the Building Official. Once building permits are issued, construction is inspected at various stages.	3 - certified	366	4250
No answer	6 - all certified by the state	48	118
	1	8	8
Obtain permit, on site inspections during work, final inspection	1	0	0
No answer	1 - certified	16	17
Inspected at all phases (electrical, plumbing, mechanical, etc.)	1	30	30
NA	2	12	50
NA	NA	NA	NA
NA	NA	NA	NA
No answer	No answer	No answer	No answer
	1 - contract	9	145
Standard process - plan review, multiple on-site inspections	1 - certified	120	Not collectively
The City of Galveston Building Division accepts permit applications for residential and commercial projects. All applications are reviewed by four (4) divisions of the City for conformance with applicable codes: Fire Marshall, Public Works, Planning/Zoning, and Building divisions. Upon final approval permits are issued and inspections performed.	5 - 1 building official, 2 building inspectors, 1 mechanical/energy code inspector and 1 electrical inspector - the Compliance Division consists of seven (7) full time code enforcement officers that assist with inspections and stop work orders that are in violation of City Codes	Residential 174 - Commercial 49	Residential Inspections 600 - Commercial Inspections 200
	1 - part-time	No answer	No answer
	1 - certified	14	14

Permit applications are reviewed by building officials. The processing time is two to ten days depending on the project. Inspection requests are processed within 24 hours of receiving the request.	2 - certified	34	237
	3 - 1 certified	50	250
	1 - certified	12	300
Inspect elevation only	NA	22	NA
	1	5	0
Builder applies for permit, must have plans as required in IBC code. A minimum of four building inspections are made.	3 - all certified	3	55
NA	NA	NA	NA
IBC is required for construction plans and compliance during inspections	1 - Building Official	159	1431
NA	NA	NA	NA
NA	NA	NA	NA
	1	10	30
NA	NA	NA	NA
Building plans must be approved prior to start of construction. Site inspections required throughout the process and prior to issue of an Occupancy Permit.	5 - 1 certified	519	7504
	0	0	0
The permit process starts with a plot plan and two sets of plans. The plans are turned over to the inspections office for the approval. When the approval is done, one set of plans are returned to the person with any corrections on them. The inspections are called in as work progresses. When an inspection is completed, it is recorded.	Contracted service to certified inspectors.	4	56
	1 part-time and 1 full-time - 1 is certified	12	90+

	3 - all volunteers (Planning and Zoning Board)	15-20	15-20
	1 - certified	25	228
No answer	1	No answer	No answer
No answer	0	Unknown - building permits are not issued by the city	0
An application for a building permit is submitted along with plans and specifications for the building. The plans are reviewed for compliance with all applicable codes and other requirements. If the plans are specifications meet all code and other requirements, a building permit is issued.	2	11	55
Plan review, permitting, inspecting (site inspection, drainage, setbacks, foundation, plumbing, electrical, HVAC, structural, fire)	4 - 2 certified	295	3955
NA	NA	NA	NA
	1	40	30
Plans submittal, approval, permits issued and inspection according to permits - building/electrical, plumbing and mechanical	1	12	20
	1	7	7
NA	NA	NA	NA
	1.5 - 1 Full-time Fire Marshall and one contract inspector	5	8
	1 - ICC certified	7	12

Jurisdiction	County	Adopted Fire Codes	Current Fire Code (Date and Type)
Austin County	Austin	No	NA
Bellville	Austin	Yes	International Fire Code - 1991
Brazos Country Industry	Austin	No	NA
San Felipe	Austin	No	NA
Sealy	Austin	Yes	International Fire Code - 2000 edition
Wallis	Austin	No	
Brazoria County	Brazoria	Yes	International Fire Code
Alvin	Brazoria	Yes	SBCCI (1994)
Angleton	Brazoria		
Bailey's Prairie	Brazoria		
Bonney	Brazoria		
Brazoria	Brazoria	No	
Brookside Village	Brazoria	Yes	SBCC - Adopted Nov 14, 2000
Clute	Brazoria		
Danbury	Brazoria		
Freeport	Brazoria	Yes	Southern Building Code (1997 Edition) - adopted in 2000

Hillcrest Village	Brazoria		
Holiday Lakes	Brazoria	No	NA
Iowa Colony	Brazoria	No	NA
Jones Creek	Brazoria		
Lake Jackson	Brazoria	Yes	Adopted in 1958 - upgraded to International Fire Code in 2000
Liverpool	Brazoria		
Manvel	Brazoria		2000 Internation Fire Code passed 8/11/00
Oyster Creek	Brazoria	No	NA
Quintana	Brazoria	Yes	Fire Prvention Code - adopted 1980
Richwood	Brazoria	Yes	International Fire Code
Surfside Beach	Brazoria	No	NA
Sweeny	Brazoria	No	We use NFPA
Chambers County	Chambers	No	NA
Cove	Chambers		
Anahuac	Chambers		
Beach City	Chambers		
Old River-Winfree	Chambers/Liberty		
Mont Belvieu	Chambers/Liberty		
Galveston County	Galveston	No	NA
Bayou Vista	Galveston	No answer	No answer
Clear Lake Shores	Galveston	Yes	International Uniform Fire Code
Dickinson	Galveston	Yes	STPC 1994
Galveston	Galveston	Yes	Fire Prevention and Protection Code
Hitchcock	Galveston	Yes	Standard Fire Code
Jamaica Beach	Galveston	Yes	International Fire Code - adopted 12/3/01

Kemah	Galveston	Yes	NFPA - adopted 5/12/94 - amended IFC in March 2002
La Marque	Galveston	Yes	Standard Fire Code - adopted in 1997
Tiki Island	Galveston	Yes	NFPA
Liberty County	Liberty	Yes	Life Safety Code
Ames	Liberty	No	NA
Cleveland	Liberty	Yes	2000 International Fire Code - originally adopted fire codes in 1976
Daisetta	Liberty	No	NA
Dayton	Liberty	Yes	International Fire Code (2000) - originally adopted codes in 1991
Dayton Lakes	Liberty		
Devers	Liberty	No	NA
Hardin	Liberty	No	NA
Kenefick	Liberty		
Liberty	Liberty	Yes	IFC
North Cleveland	Liberty		
Plum Grove	Liberty		
Montgomery County	Montgomery	No	NA
Conroe	Montgomery	Yes	International Fire Code - 2000 edition
Cut and Shoot	Montgomery	No	Fire related matters are handled by ESD 12
Magnolia	Montgomery		
Montgomery	Montgomery	Yes	Standard Fire Prevention Code - adopted 1998
Oak Ridge North	Montgomery	Yes	International Code Council - adopted 1982

Panorama Village	Montgomery	Yes	1998
Patton Village	Montgomery		
Roman Forest	Montgomery	No	NA
Shenandoah	Montgomery	Yes	International Fire Code
Splendora	Montgomery	No	NA
The Woodlands	Montgomery		
Willis	Montgomery	Yes	Standard Fire Code (1997) - adopted 4/21/98
Walker County	Walker		
Huntsville	Walker	Yes	Adopted International Fire Code 2000
Riverside	Walker		
New Waverly	Walker		
Waller County	Waller	No	NA
Brookshire	Waller	Yes	SBCC
Hempstead	Waller	Yes	International Fire Code
Pattison	Waller	No	NA
Pine Island	Waller	No	NA
Prairie View	Waller	Yes	NFPA
Waller	Waller/Harris	Yes	2003 ICC Fire Code

Describe Inspection/Permit Process	Number and Qualifications of Inspectors	Number of Fire Inspections Conducted During Past 12 Months
NA	NA	NA
	1	4
NA	NA	NA
NA	NA	NA
NA	NA	NA
	2	53
	Use Fort Bend County Fire Marshall. Also use the Fireman and Fire Marshall office.	4
Currently EMC is in charge of fire code.	0 - in training	0
No answer	1	1200
	2 - volunteers	16
	1 - part-time - certified	2
Fire inspections are conducted on new construction or projects that require permits through the Building Official's office. Proactive inspections as time permits.	1 - certified	25

NA	NA	NA
NA	NA	NA
	1 - certified	310
No answer	1 - Fire Marshall	90
NA	NA	NA
No answer		1 No answer
		0 7
NA	NA	NA
	2 - certified	No answer
NA	NA	NA
NA	NA	NA
No answer	No answer	No answer
	2 - part-time - certified	1
	2 - certified	200
No answer	2 full time certified fire inspectors	No answer
		0 0
	1 - certified	14

At present there is no fire inspection or permitting process	NA	NA
Call request and annual	4 - 1 certified	140
	1 - part-time - certified	5
	1 - certified	45
NA	NA	NA
	1 - certified	60+
NA	1 - Fire Marshall	2
Process is the same as the subdivision and building -- the Fire Marshall and Building Official are in charge of fire code compliance.	2 - state certification	No answer
NA	NA	NA
NA	NA	NA
	11 - 1 certified	80
NA	NA	NA
Occupant must request a fire inspection and receive approval prior to applying for a building occupancy permit.	3 - all certified	2500
Unknown	Unknown	Unknown
Fire service provided through the County.	No answer	No answer
	2 part-time, certified	120

No answer	Volunteer Fire Department	No answer
NA	NA	NA
	1 - certified	No answer
Fire protection is provided by Montgomery County Emergency Service #11	NA	NA
Fire inspections are performed on request of the property owner or building tenant.	0	3
Fire Department inspects buildings for compliance of the fire code annually.	3	270
NA	NA	NA
	1	5
	1	20
NA	NA	NA
NA	NA	NA
Upon request or when applying for a permit	2.5	9
	1	15

Jurisdiction	County	NFIP Participant	Current Floodplain Management Ordinance/Court Orders	Date Adopted
Austin County	Austin	Y	Flood Damage Prevention Ordinance	11/13/89 amended 5/24/99
Bellville	Austin	Y	See Austin County	Apr-98
Brazos Country	Austin	Y	Ordinance 2001-09	8/15/2001
Industry	Austin	N	NA	NA
San Felipe	Austin	Y	See Austin County	No answer
Sealy	Austin	Y	Flood Damage Prevention Ordinance	6/9/1999
Wallis	Austin	Y	See Austin County	No answer
Brazoria County	Brazoria	Y	Flood Damage Prevention Ordinance	Adopted Dec 1971
Alvin	Brazoria	Y	No answer	No answer
Angleton	Brazoria	Y		
Bailey's Prairie	Brazoria	Y		
Bonney	Brazoria	Y		
Brazoria	Brazoria	Y	Flood Damage Prevention Ordinance	No answer
Brookside Village	Brazoria	Y	Flood Damage Prevention Ordinance	No answer
Clute	Brazoria	Y		
Danbury	Brazoria	Y		

Freeport	Brazoria	Y	Flood Damage Prevention Ordinance	Apr-89
Hillcrest Village	Brazoria	Y	No	NA
Holiday Lakes	Brazoria	Y		
Iowa Colony	Brazoria	Y	No	NA
Jones Creek	Brazoria	Y		
Lake Jackson	Brazoria	Y	No - part of Floodplain Management	NA
Liverpool	Brazoria	Y		
Manvel	Brazoria	Y	Ordinance #2-90-05	8/10/2000
Oyster Creek	Brazoria	Y	Ordinance Number 311	3/19/1987
Quintana	Brazoria	Y	Flood Damage Prevention Ordinance	1984
Richwood	Brazoria	Y	Flood Damage Prevention Ordinance	1987
Surfside Beach	Brazoria	Y	Flood Damage Prevention Ordinance	11/14/2000
Sweeny	Brazoria	Y	Ordinance Number 102-87	1987
Chambers County	Chambers	Y		
Cove	Chambers	N		
Anahuac	Chambers	Y		
Beach City	Chambers	Y		
Old River-Winfree	Chambers/Liberty	Y		
Mont Belvieu	Chambers/Liberty	Y		
Galveston County	Galveston	Y	Flood Damage Prevention Ordinance	1971 - latest update 2002
Bayou Vista	Galveston	Y	No answer to survey questions	No answer
Clear Lake Shores	Galveston	Y	Flood Damage Prevention Ordinance	1987

Dickinson	Galveston	Y	Floodplain Management Ordinance	No answer
Galveston	Galveston	Y	Flood Damage Prevention Ordinance	12/6/2002
Hitchcock	Galveston	Y	No ordinance	NA
Jamaica Beach	Galveston	Y	Flood Damage Prevention Ordinance	Oct-02
Kemah	Galveston	Y	Flood Damage Prevention Ordinance	Adopted 2/27/92 - amended 9/26/02
La Marque	Galveston	Y	Flood Damage Prevention Ordinance	2002
Tiki Island	Galveston	Y	Flood Damage Prevention Ordinance	1983
Liberty County	Liberty	Y	Flood Damage Prevention Order	July 25, 1988 - entered on record March 2, 1992 Vol. 7 page 635
Ames	Liberty	N	NA	NA
Cleveland	Liberty	Y		
Daisetta	Liberty	Y	No ordinance	

Dayton	Liberty	Y	Flood Damage Prevention Ordinance	1988
Dayton Lakes	Liberty	Y		
Devers	Liberty	N	NA	NA
Hardin	Liberty	Y	Answered no to all	
Kenefick	Liberty	N		
Liberty	Liberty	Y	No ordinance	No answer
North Cleveland	Liberty	N		
Plum Grove	Liberty	Y		
Montgomery County	Montgomery	Y	No ordinance	Joined the program in 1978-79
Conroe	Montgomery	Y	Flood Damage Prevention Ordinance	1995 - currently being amended
Cut and Shoot	Montgomery	Y	No ordinance	Adopted June 1987, amended November 1996
Magnolia	Montgomery	Y		
Montgomery	Montgomery	Y	Flood Damage Prevention Ordinance	1996
Oak Ridge North	Montgomery	Y	Flood Damage Prevention Ordinance	1982 - amended 1997
Panorama Village	Montgomery	Y	Flood Damage Prevention Ordinance	No answer
Patton Village	Montgomery	N		
Roman Forest	Montgomery	Y	No	NA
Shenandoah	Montgomery	Y	Floodplain Management Ordinance (ORD. No. 0-9604)	12/11/1996 - amended 4/24/02 to include criminal and civil penalties

			Flood Damage Prevention Ordinance	
Splendora	Montgomery	Y		12/4/1986
The Woodlands	Montgomery	Y		
			Flood Damage Prevention Ordinance	
Willis	Montgomery	Y		12/17/1996
Walker County	Walker	Y		
			Flood Damage Prevention Ordinance	
Huntsville	Walker	Y		5-Jul-77
Riverside	Walker	Y		
New Waverly	Walker	Y		
			Flood Damage Prevention Ordinance	Joined the program in the 1980's
Waller County	Waller	Y		
Brookshire	Waller	Y	Answered no to all	
			Flood Damage Prevention Ordinance	
Hempstead	Waller	Y		8-Jan-88
Pattison	Waller	Y	Answered no to all	
Pine Island	Waller	N	NA	NA
Prairie View	Waller	Y	No ordinance	Joined the program in 1987
Waller	Waller/Harris	Y	Floodplain Ordinance	No answer

Explanation of inspection/permit process	Number of Floodplain Administrator(s) and Staff	Qualifications of Floodplain Administrator(s) and Staff	Number of inspections and permits approved	Number of variances allowed
Written development applications reviewed by staff for compliance	1 - Administrator	No answer	14 permits, 216 exemption certificates	0
Interlocal agreement with Austin County	See Austin County	See Austin County	See Austin County	0
No answer	1 - Administrator	No answer	No answer	No answer
NA	NA	NA	NA	NA
No answer	No answer	No answer	0	0
Administrator is required to sign off on all building permit applications and verify if the permit request is indie or outside of the floodplain. If located inside the floodplain, construction is subject to all requirements found in the ordinance	1 Floodplain Administrator	Director of Public Works	0	0
City Hall issues permit and then inspector inspects the work	1 - staff member	No answer	NA	NA
A detailed description of the inspection process can be obtained through the County	1 administrator and 2 office staff		Total 2002-582, Jan-May 2003 - 160	0
No answer	3 certified floodplain managers	all certified	0	0
Application is received and reviewed, the site is inspected several times before receiving final approval		2 No answer	0	0
elevation certificate required for development in the floodplain	1		15	0

Integrated with routine building permitting and inspection process		1 No answer		4	0
No answer		1 Mayor		0	0
No answer	No answer	No answer		0	0
We either allow it or not.		1 City Manager		0	0
No answer	Emergency Management Coordinator			7	0
No answer		0 NA	1 - Velsaco Drainage Dict.		0
Detailed explanation of the inspection process can be obtained through the city.		1 No answer	No answer	No answer	No answer
	1 - other existing staff as needed	Public Works Director		0	0
require engineers drawings and elevation certificate	1 staff	No answer		30	0
No answer		1 City Manager	30+		0
Per FEMA guidelines	3 staff			25	0
Permits are issued, inspections performed, violations handled	County Engineer is Floodplain Administrator. He has a permit manager and two clerical people.	No answer		1200 permits with a minimum of 2 inspections	0
No answer	No answer	No answer	No answer	No answer	No answer
No answer	Floodplain Adminstrator	No answer		0	0

No answer		Included in City Planning Team - Community Development Director, City Planner, Building Inspector and City Administrator		No structures have been built in the floodway, nor below the 100 year floodplain
inspect and permit foundations, framing and final inspection	1 administrator and 3 staff members	No answer	0	0
No answer	No answer	No answer	20 new permits	0
No answer	One administrator - no staff		14 inspections	0
No process	No team	NA	0	0
No answer	None	NA	0	0
No answer		1 Mayor	0	0
OSSF Inspectors regularly tour river bottom subdivisions and report any new construction. Any new construction or addition (including mobile home) must have elevation certificate before permits issued in floodplain.	1 Floodplain administrator and 1 assistant		25 floodplain permits issued from Jan 2 - Dec 2 with 21 approvals and 4 not complete	0
NA	NA	NA	NA	NA
Anyone requesting to build within the floodway must request for a permit and has to provide an elevation certificate		2	2	0

The permitting process starts with preliminary plans with the development review committee; plans must show the required contents; final plans will be submitted with corrections for final approval, a master copy is submitted along with permitting fees for building permit. Inspections are made during construction and a Certificate of Occupancy is given after as-builts are submitted.	Administrator - City Manager			0	0
NA	NA	NA	NA	NA	NA
No answer	No answer	No answer		1	0
No answer	1 - Floodplain Administrator	No answer		0	0
Certificates are required for any new construction within the existing floodplain	1 - Floodplain Administrator	No answer		67	0
	NA	NA	NA	NA	NA
Plans for single family homes reviewed by City engineer. Subdivision plans reviewed by Planning and Zoning Commission for compliance before submitting to City Council for approval	No administrator	NA	NA		0
All building permits are reviewed for location in or out of floodplain. All construction in Zone AE must be one foot above the BFE	1 - Floodplain Administrator	No answer		3	0
		1	No answer	No answer	No answer
NA	NA	NA		0	0
No answer	No answer	No answer		0	0

We do not have a written process. We have had only one major reconstruction. An engineering study was provided to the City by the property owner as directed by the TNRCC office.	1 - City Secretary	No answer	0	0
An application for development is submitted to the Floodplain Administrator with plans drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations, existing and proposed structures and the location of the foregoing in relation to areas of special flood hazard. With additional information required. Approval or denial of the Development Permit is based on the compliance with the ordinance and other relevant factors.	1 - Administrator and 1 staff member	No answer	0	0
No answer	1 - Floodplain Administrator	No answer	0	0
No	No	No	No	No
All new construction is inspected	2 members	No answer	0	0
NA	NA	NA	NA	NA
NA	NA	NA	0	3
Floodplain permits are issued to homeowners in the floodplain. Elevation certificates from surveyors are required	1- administrator and 1 inspector	No answer	0	0

NA
NA
NA
NA
NA
NA
NA
NA
No answer
NA
NA

NA
NA
NA
No
NA
NA
No explanation
NA



Mitigation Actions Worksheets

Disaster Mitigation Act Required Elements

201.6(c)(3)(ii): *The mitigation strategy shall include a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.*

201.6(c)(3)(iii): *The mitigation strategy shall include an action plan describing how the actions identified in paragraph (c)(2)(ii) of this section will be prioritized, implemented, and administered by the local jurisdiction.*

Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

201.6(c)(3)(iv): *For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.*

This Mitigation Actions Worksheet should be used to identify potential Hazard Mitigation Actions that your community will consider to reduce the effect of natural hazards. This tool provides a simple way of organizing potential actions so that they are reader friendly and easily incorporated into the Mitigation Action Plan.

The worksheets are part of a strategic planning process and are designed to either

- a.) be filled out and returned at the meeting; or
- b.) be taken back to your community for consideration (for review before local Hazard Mitigation Advisory Groups, City Boards, etc) and then returned.

If you choose to take the worksheet home, **please return them no later than [date]**. Please return your community's mitigation work elements to:

Address to be determined:

Each action should be considered to be a separate project/program. By identifying project/policy requirements, the Mitigation Action Plan will help lay the framework for participating communities to engage in distinct actions that will reduce their vulnerability and risk. Below find an example of the Mitigation Action matrix followed by a brief explanation of its components.

Mitigation Action	
Community Name:	
Action Item (describe):	
Category:	
Hazard(s):	
Lead Agency/Department Responsible:	
Estimated Cost:	
Funding Method:	
Implementation Schedule:	
Priority:	

- a. Community Name: Be sure to identify your community's name.
- b. Action Item: Identify specific actions that, if accomplished, will reduce vulnerability and risk in the impact area. Actions should match mitigation goals and objectives.
- c. Category: Please indicate the most appropriate category for the proposed action (Prevention; Property Protection; Natural Resource Protection; Structural Projects; Emergency Services; or Public Education and Awareness).
- d. Hazard(s): The hazard(s) the action attempts to mitigate against.
- e. Lead Agency/ Department Responsible: Identify the local agency, department or organization that is best suited to accomplish this action.
- f. Estimated Cost: If applicable, indicate what the cost will be to accomplish this action. This amount will, of course, have to be estimated until actual final dollar amounts can be determined.
- g. Funding Method: If applicable, indicate how the cost to complete the action will be funded. For example, funds may be provided from existing operating budgets, or from a previously established contingency fund, or a cost sharing Federal or State grant, etc.
- h. Implementation Schedule: Indicate when the action will begin, and when the action is expected to be completed. Remember that some actions will require only a minimum amount of time, while others may require a long-term effort.
- i. Priority: Indicate weather the action is a 1) High priority – short term immediate; 2) Moderate priority – an action that should be implemented in the near future; 3) Low priority – an action that should be implemented over the long term. Prioritization should be based on the following:
 1. Effect on overall risk to life and property.
 2. Ease of implementation.
 3. Political and community support.
 4. Funding availability.

The following page is to be used to identify Mitigation Actions for your community. Please make copies of the Mitigation Actions Worksheet and fill out a separate worksheet per action.

MITIGATION ACTION WORKSHEET

Mitigation Action	
Community Name:	
Action Item (describe):	
Category:	
Hazard(s):	
Lead Agency/Department Responsible:	
Estimated Cost:	
Funding Method:	
Implementation Schedule:	
Priority:	



**Houston-Galveston Area Council
Multi-jurisdictional Hazard Mitigation Plan**

Identification of Hazards Unique to Individual Jurisdictions

Jurisdiction: _____

Name: _____

Phone Number: _____

1. Does your jurisdiction have any unique hazards not addressed in the area-wide hazard identification and risk assessment?

Yes _____ No _____

If you answered “yes” to the question above, please continue and answer the following questions.

2. What is the unique hazard your community faces?

3. Does this unique hazard have a distinct geographic hazard boundary? If yes, please describe the geographic hazard area.

4. What are the consequences of this unique hazard to the people and property in your community?

a. How many people are at risk?

b. Are any special populations potentially at risk?

c. How much property is at risk and what type of property is at risk ?

i. What are the estimated number of residential structures at risk and a gross estimate of the dollar value of those structures?

ii. What is the estimated number of commercial structures at risk and a gross estimate of the dollar value of those structures?

iii. What is the estimated number of key and special facilities at risk and a gross estimate of the dollar value of those key and special facilities?

iv. What infrastructure and lifelines are at risk from this unique hazard?

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

I. GENERAL COMMUNITY INFORMATION

Please provide the following information separately, preferably on not more than three (3) pages.

- A. A narrative description of your community, including its history, distinct personality, culture and geography, along with any unique natural or physical features.
- B. A brief history of hazards in your community, including the type, date of occurrence and any known impacts.
- C. A brief description of current or projected development trends in your community.
- D. A general listing of any on-going or completed hazard mitigation projects within your community.

II. HAZARD MITIGATION PLANS, POLICIES AND ORDINANCES

Hazard Mitigation Plan	Yes or No?	Narrative / Explanation
Does your jurisdiction receive Emergency Management Performance Grant Funds?		
Does your community have a Hazard Mitigation Plan? If yes, when was it adopted? When was the plan last amended?		
Does the plan address all natural hazards found in your community, or is it a single-hazard plan? If it addresses a single hazard, what is the hazard?		
Does the plan address human-caused hazards? Human-caused hazards may include technological accidents and acts of terrorism.		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

<p>Do you believe the plan would meet the requirements established by the Disaster Mitigation Act of 2000? If no, what elements do not meet the new standards?</p>		
<p>Has the plan proven to be an effective measure for reducing hazard impacts? Please provide an approximate measure of its effectiveness to date (HIGH, MODERATE or LOW) and briefly explain.</p>		
<p>Does your community have an established Hazard Mitigation Committee? If so, please provide us with a listing specific outcomes, including plans or projects identified and implemented through the committee.</p>		
<p align="center">Disaster Recovery Plan</p>	<p align="center">Yes or No?</p>	<p align="center">Narrative / Explanation</p>
<p>Does your community have a Disaster Recovery Plan? If yes, when was it adopted? When was the plan last amended?</p>		
<p>Does the plan address all natural hazards found in your community, or is it a single-hazard plan? If the plan addresses a single hazard, what is the hazard?</p>		
<p>Does the plan address human-caused hazards?</p>		
<p>Has the plan proven to be an effective measure for reducing hazard impacts? Please provide an approximate measure of its effectiveness to date (HIGH, MODERATE or LOW) and briefly explain.</p>		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

Coastal Zone Management Plan	Yes or No?	Narrative / Explanation
Does your jurisdiction have a Coastal Zone Management Plan? If yes, when was it adopted? When was the plan last amended?		
Does the plan address natural hazards, including ways to reduce their impact?		
Has the plan proven to be an effective measure for reducing hazard impacts? Please provide an approximate measure of its effectiveness to date (HIGH, MODERATE or LOW) and briefly explain.		
Comprehensive Plan	Yes or No?	Narrative / Explanation
Does your community have a comprehensive or master plan? If so, does the plan address natural and human-caused hazards? Please briefly explain.		
Has the plan proven to be an effective measure for reducing hazard impacts? Please provide an approximate measure of its effectiveness to date (HIGH, MODERATE or LOW) and briefly explain.		
Floodplain Management Plan	Yes or No?	Narrative / Explanation
Does your community have a floodplain management / flood mitigation plan? If yes, when was the plan adopted? When was the plan last amended?		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

Does the plan contain provisions for relocating, elevating or acquiring structures currently located in the floodplain?		
Does the plan include structural measures such as rebuilding or retrofitting flood-prone structures?		
Are specific properties identified and targeted for future flood mitigation projects?		
Does the plan include reference to the “No Adverse Impact” strategy developed by the Association of State Floodplain Managers?		
Are there adequate building sites located outside the floodplain to satisfy development pressures?		
Does the plan include measures to preserve the floodplain’s natural functions?		
Are floodplain management activities conducted in conjunction with neighboring communities or through a regional governing body?		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

<p>Are developers informed of the floodplain management regulations before they subdivide land in the floodplain?</p>		
<p>Does the plan address the location of mobile home parks in the floodplain?</p>		
<p>Has the plan proven to be an effective measure for reducing hazard impacts? Please provide an approximate measure of its effectiveness to date (HIGH, MODERATE or LOW) and briefly explain.</p>		
<p align="center">Stormwater Management Plan</p>	<p align="center">Yes or No?</p>	<p align="center">Narrative / Explanation</p>
<p>Does your community have a stormwater management plan? If yes, when was the plan adopted? When was the plan last amended?</p>		
<p>Is there a regular maintenance schedule for checking and clearing storm water drains and drainage systems and removing debris from streams and watercourses?</p>		
<p>Are existing culverts and other drainage devices sized properly for the amount of water they must carry during peak discharges?</p>		
<p>Are future planned systems adequately designed to meet storm water drainage demands of the community, factoring in increased development that may increase storm water runoff?</p>		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

Does the plan call for the provision of structural measures such as retention and detention facilities that minimize the increases in runoff caused by impervious surfaces and new development?		
Are there restrictions on the amount of impervious surfaces?		
Does your community have a storm water management fee? If yes, what are the generated funds used for?		
Has the plan proven to be an effective measure for reducing hazard impacts? Please provide an approximate measure of its effectiveness to date (HIGH, MODERATE or LOW) and briefly explain.		
Emergency Operations Plan	Yes or No?	Narrative / Explanation
Does your community have an Emergency Operations Plan? If yes, when was it adopted? When was the plan last amended?		
Does the plan address natural and human-caused hazards?		
Continuity of Operations Plan	Yes or No?	Narrative / Explanation

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

Does your community have a Continuity of Operations Plan? If yes, when was it adopted? When was the plan last amended?		
Does the plan address natural and human-caused hazards?		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

Radiological Emergency Plan?	Yes or No?	Narrative / Explanation
Does your community have a Radiological Emergency Plan? If yes, when was it adopted? When was the plan last amended?		
SARA Title III / Hazardous Material Facility Emergency Response Plan	Yes or No?	Narrative / Explanation
Does your community have a Hazardous Material Facility Emergency Response Plan? If yes, when was it adopted? When was the plan last amended?		
Does your community actively participate in a Local Emergency Planning Commission (LEPC)?		
Transportation Plan	Yes or No?	Narrative / Explanation
Does your community have a Transportation Plan? If yes, when was it adopted? When was the plan last amended?		
Does your community consider identified hazards when planning for future roads and bridges?		
Do roads, bridges, or undersized culverts impede water flow regularly in your community?		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

Does your community have a plan for an emergency evacuation?		
Are roads designed for adequate evacuation capacity?		
Capital Improvements Plan	Yes or No?	Narrative / Explanation
Does the Capital Improvements Plan restrict the provision or extension of infrastructure into hazard areas?		
Are there site standards requiring the location of critical public facilities outside of hazard areas?		
Are there construction requirements for critical facilities located in hazard areas to ensure they remain operational during and after a hazard event?		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

Regional Planning	Yes or No?	Narrative / Explanation
Does your community participate in regional planning decisions? If yes, please explain.		
Historic Preservation Plan	Yes or No?	Narrative / Explanation
Does your community have a Historic Preservation Plan? If yes, when was it adopted? When was the plan last amended?		
Does the plan address the protection of historic buildings and sites from natural hazards?		
Zoning Ordinance	Yes or No?	Narrative / Explanation
Does your community have a Zoning Ordinance? If yes, when was it adopted?		
Does the ordinance restrict the type/density of development in identified hazard areas? If so, please briefly explain.		
Do non-conforming use provisions of the zoning ordinance take into account structures that are damaged by hazards?		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

<p>Are any non-conforming use or substantial damage provisions strictly enforced following a disaster?</p>		
<p>Does your community maintain adequate technical and field inspection staff for proper administration and enforcement of the zoning ordinance?</p>		
<p>Has the ordinance proven to be an effective measure for reducing hazard impacts? Please provide an approximate measure of its effectiveness to date (HIGH, MODERATE or LOW) and briefly explain.</p>		
<p align="center">Subdivision Ordinance</p>	<p align="center">Yes or No?</p>	<p align="center">Narrative / Explanation</p>
<p>Does your community have a Subdivision Ordinance? If yes, when was it adopted?</p>		
<p>Does the ordinance place restrictions on the subdivision of land in known hazard areas?</p>		
<p>Must all lots have a buildable site that is outside of delineated hazard zones?</p>		
<p>Does the ordinance establish setback requirements from delineated hazard zones?</p>		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

<p>Are there provisions for the protection or creation of natural areas, such as wetlands, dunes or natural vegetation as a condition of subdivision approval?</p>		
<p>Has the ordinance proven to be an effective measure for reducing hazard impacts? Please provide an approximate measure of its effectiveness to date (HIGH, MODERATE or LOW) and briefly explain.</p>		
<p align="center">Flood Damage/Management Ordinance</p>	<p align="center">Yes or No?</p>	<p align="center">Narrative / Explanation</p>
<p>Does your community have a Flood Damage Prevention Ordinance? If yes, when was it adopted?</p>		
<p>Please provide a description of the current inspection and permitting processes for floodplain management?</p>		
<p>Does your Floodplain management team have an administrator?, If so, How many staff members?</p>		
<p>How many flood inspections have been provided in the past twelve months?</p>		
<p>How many variances have been provided in the last twelve months?. Could you please provide list that includes date, address of property, and reasons for allowing the variance?</p>		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

Does your ordinance include a freeboard requirement for all new construction in the floodplain? If so, what is the freeboard requirement?		
Does the ordinance include a cumulative substantial damage provision?		
Does the ordinance incorporate any other regulations that exceed National Flood Insurance Program (NFIP) standards? If so, how?		
Has the ordinance proven to be an effective measure for reducing hazard impacts? Please provide an approximate measure of its effectiveness to date (HIGH, MODERATE or LOW) and briefly explain.		
Building Codes, Permitting and Inspections	Yes or No?	Narrative / Explanation
Has your community adopted a building code? If so, when was it adopted?		
What type of building code was adopted by your jurisdiction? Is it based on: the Uniform Building Code promulgated by the International Conference of Building Officials (ICBO)? or on the National Building Code promulgated by the Building Officials and Code Administrators International (BOCA)? or on the Standard Building Code promulgated by the Southern Building Code Congress, International (SBCCI)? or on the International Building Codes promulgated by the International Code Council (ICC)? Please specify.		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

Does your community diligently enforce the building code, both at the plan approval stage and the site-inspection stage?		
Has your building code been amended? If so, what types?		
Please provide a description of the inspection and permitting processes.		
How many inspectors are used in your jurisdiction ? Please specify in terms of the number of full-time equivalent personnel.		
How many building inspectors are Certified by the ICC/CABO or other certification programs?		
On average, how many years of experience in construction and inspection do your building inspectors have?		
Is your inspections department adequately staffed and trained to enforce the building code?		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

<p>Are the same rules and practices applied during routine permitting procedures and following a disaster? If they are different, how do they differ?</p>		
<p>How many building starts were there in your jurisdiction in the last twelve months?</p>		
<p>How many building inspections have been conducted in your jurisdiction in the last twelve months.</p>		
<p>Does your community have a temporary building moratorium to put in place following a disaster to stop or slow reconstruction pending a damage assessment?</p>		
<p align="center">Building Codes, Permitting and Inspections</p>	<p align="center">Yes or No?</p>	<p align="center">Narrative / Explanation</p>
<p>Does your jurisdiction have a current fire code?</p>		
<p>If yes, when did the fire code go into effect?</p>		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

<p>What is the name of your jurisdictions's fire code?</p>		
<p>What is the type of fire code adopted by your jurisdiction? Is is based on the Uniform Fire Code published by the International Fire Code Institute? Or the International Fire Code published by the International Code Council? Or the Standard Fire Code published by the SBCC? or another code? Please specify the code on which it was based.</p>		
<p>Please describe the fire inspection and permitting process.</p>		
<p>How many fire inspectors does your jurisdiction use? Please specify in terms of the number of full-time equivalent inspectors.</p>		
<p>How many of your fire inspectors are certified?</p>		
<p>How many of your fire inspectors have completed the State Certification course for fire inspectors?</p>		
<p>On average, how many years of experience in fire service or fire inspection do your jurisdiction's fire inspectors have?</p>		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

How many fire inspections have been conducted in your jurisdiction in the last twelve months.		
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III. ENVIRONMENTAL PROTECTION MEASURES

Conservation and Natural Resource Protection	Yes or No?	Narrative / Explanation
Does your community have a riparian or wetlands preservation program? If yes, does the program provide funding for the acquisition and restoration of sensitive habitat areas?		
Do you maintain provisions for protecting natural riparian cover located within a specific distance of a stream or river?		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

Park, Greenways and Open Space	Yes or No?	Narrative / Explanation
Does your community have a program to acquire available land for public recreational use?		
Does your community form partnerships with non-governmental organizations to acquire or otherwise protect hazardous areas? If so, please explain.		
Does your community have an open space or forestry management plan? If so, does the plan address natural hazards (i.e., fire breaks, clearing brush, staging controlled burns, etc.)?		

IV. BUSINESS AND INDUSTRY MEASURES

Private Sector Mitigation	Yes or No?	Narrative / Explanation
Has the community established any public-private partnership initiatives to address disaster-related issues? If so, please briefly explain.		
Does the community provide training or outreach efforts aimed at educating businesses to prepare for disaster (i.e., structural mitigation measures, insurance coverage, etc.)?		
Does the community provide training for local businesses to develop continuity plans to prepare for disaster?		

V. TECHNICAL, FISCAL, ADMINISTRATIVE AND POLITICAL CAPABILITIES

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

Technical Capability	Yes or No?	Narrative / Explanation
Does your community maintain or have access to detailed historical information related to past disasters?		
Does your community maintain or have access to detailed documentation of actions taken to reduce future hazard impacts?		
Does your community maintain a Geographic Information System (GIS)?		
Does your community possess GIS data layers on identified hazards? If so, what type of hazards?		
Does your community use GIS to analyze hazard vulnerability? Please provide the name and contact information for your GIS point of contact.		
Does your community use FEMA's Hazards US (HAZUS) software? If yes, how is it used?		
Does your community maintain adequately trained staff to manage the GIS?		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

<p>How would you classify your community's overall technical capability to implement hazard mitigation strategies (HIGH, MODERATE or LOW).</p>		
<p align="center">Fiscal Capability</p>	<p align="center">Yes or No?</p>	<p align="center">Narrative / Explanation</p>
<p>Does your community dedicate any local funds to address mitigation-related activities? If yes, please describe.</p>		
<p>How would you classify your community's overall fiscal capability to implement hazard mitigation strategies (HIGH, MODERATE or LOW).</p>		
<p align="center">Administrative Capability</p>	<p align="center">Yes or No?</p>	<p align="center">Narrative / Explanation</p>
<p>Are mitigation-related activities assigned to a local department's)? If so, which one(s)?</p>		
<p>Is there a high level of intergovernmental cooperation among local departments? Please describe the potential level of cooperation in the context of mitigation-related programs.</p>		
<p>Does your jurisdiction participate in a local emergency management mutual aid program? If yes, has the mutual aid program been used to address mitigation or disaster recovery related issues? Please explain.</p>		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

<p>How would you classify your community's overall administrative capability to implement hazard mitigation strategies (HIGH, MODERATE or LOW).</p>		
<p align="center">Political Capability</p>	<p align="center">Yes or No?</p>	<p align="center">Narrative / Explanation</p>
<p>Please identify the land area in square miles within your jurisdiction that is to be covered by this Hazard Mitigation Plan. For counties, this will include the unincorporated areas of the county only for which the county has jurisdiction.</p>		<p align="center">_____ square miles</p>
<p>For cities, is your city a "home rule" or "general law" city under the Texas Government Code?</p>		
<p>For cities, what type of governing body do you have? An Alderman, City Manager, Commissioner or other form of Governing Body? If other, please describe.</p>		
<p>Political capability can be generally measured by the degree to which political leadership is willing to enact policies and programs that reduce hazard vulnerabilities in your community, even if met with opposition. Examples may include guiding development away from identified hazard areas or participating in FEMA's <i>Project Impact</i> initiative. Please identify specific examples of these efforts and reference where more documentation can be found.</p>		
<p align="center">VI. PARTICIPATION IN GRANT PROGRAMS AND PROJECTS</p>		
<p align="center">Hazard Mitigation Grant Program Funds</p>	<p align="center">Yes or No?</p>	<p align="center">Narrative / Explanation</p>
<p>Has your community received Hazard Mitigation Grant Funds?</p>		

LOCAL CAPABILITY ASSESSMENT QUESTIONNAIRE

If so, what is the date of the grant?		
Please describe the projects implemented utilizing these funds.		
How would you classify the overall effectiveness of the Hazard Mitigation Grant Program project in your community in terms of its effectiveness in reducing risk? Please provide an approximate measure of its effectiveness to date (HIGH, MODERATE or LOW) and briefly explain.		
Flood Protection Program Planning Funds	Yes or No?	Narrative / Explanation
Has your community received Flood Protection Program Planning Grant Funds?		
If so, what is the date of the grant?		
Please describe the projects implemented utilizing these funds.		
How would you classify the overall effectiveness of the Flood Protection Program Planning funds in your community in terms of its effectiveness in reducing risk? Please provide an approximate measure of its effectiveness to date (HIGH, MODERATE or LOW) and briefly explain.		
U.S. Army Corp of Engineers Projects	Yes or No?	Narrative / Explanation
Has your community received assistance in the form of any U.S. Army Corps of Engineers Projects?		
If so, what is the date and name of the project ?		
Please provide a brief narrative description of the project.		
How would you classify the overall effectiveness of the U.S. Army Corps of Engineers project in your community in terms of its effectiveness in reducing risk? Please provide an approximate measure of its effectiveness to date (HIGH, MODERATE or LOW) and briefly explain.		

**H-GAC Regional Mitigation Plan – Capability Assessment
Points System**

55 points max:

- 0-14 points = Limited overall capability**
- 15-29 points = Moderate overall capability**
- 30-55 points = High overall capability**

Yes=3 points No=0 points

Hazard Mitigation Plan
Radiological Emergency Plan
SARA Title III/Hazardous Material Facility Emergency Response Plan
Participate in CRS Program
BCEGS Grade of 1 to 5

Yes=2 points No=0 points

Emergency Operations Plan
Comprehensive Plan (that addresses natural hazards)
Disaster Recovery Plan
Continuity of Operations Plan
Regional Planning
Riparian or Wetlands Preservation Plan
Stormwater Management Plan
Participate in NFIP
Floodplain Management Plan
BCEGS Grade of 6 to 9

Yes=1 point No=0 points

Any of the above plans/programs under County Jurisdiction

Yes=1 point No=0 points

Comprehensive Plan (but does not address natural hazards)
Coastal Zone Management Plan
Transportation Plan
Capital Improvements Plan
Historic Preservation Plan
Zoning Ordinance
Subdivision Ordinance
Adopted building code
Adopted fire code
Riparian buffers
Program to acquire land for public recreational use
Partnerships with NGOs for acquisition/protection of hazard areas
Open space or forestry management plan
Public-Private Partnership Initiatives

High=2 points Moderate=1 points Low=0 points (Self-ranked by jurisdiction)

Technical Capability
Fiscal Capability
Administrative Capability
Political Capability

No points

Flood Damage Prevention Ordinance (required if participate in NFIP)

******This methodology is based on best available information. If a jurisdiction does not provide information on any of the above items, a point value of zero (0) will be assigned for that item.***



H-GAC Public Participation Survey 93 respondents as of October 9, 2003

1. What city/county do you live in?

County percentages are sometimes greater than the total for the cities in those counties, as some respondents only listed their county.

Austin County: 19.4%

Cities: Bellville: 9.7%
Bleiberville: 1.1%
Sealy: 3.2%

Brazoria County: 1.1%

Cities: Brazoria: 1.1%

Chambers County: 31.2%

Cities: Anahuac: 11.8%
Baytown (Cove): 2.2%
Hankamer: 4.3%
Stowell: 2.2%
Winnie: 5.4%

Liberty County: 29%

Cities: Cleveland: 2.2%
Cypress Lakes: 1.1%
Daisetta: 1.1%
Dayton: 6.5%
Hardin: 1.1%
Romayor: 1.1%
Rye: 2.2%

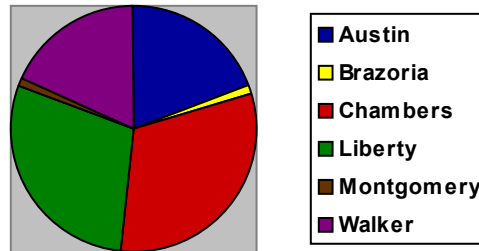
Montgomery County: 1.1%

Cities: Willis: 1.1%

Walker County: 18.3%

Cities: Huntsville: 7.5%
New Waverly: 4.3%
Richards: 1.1%

Participating Counties



2. Have you ever experienced or been impacted by a disaster?

Yes: 50.5%

No: 49.5%

2a. If “yes”, please explain?

Exact explanations are located on the Excel spreadsheet, “hgac.” The following are grouped by subject. Percentages equal more than 100% as most respondents listed more than one hazard occurrence.

Drought: 2.1%
Earthquake: 2.1%
Fire: 8.5%
Flood: 38.3%
Hazardous Materials: 6.4%
Hurricane: 46.8%
Lightning: 2.1%
Major Highway Accident: 2.1%
Pipeline: 6.4%
Tornado/Wind Storm: 25.5%
Thunderstorm: 8.5%

3. How concerned are you about the possibility of our community being impacted by a disaster?

Extremely concerned: 31.2%

Somewhat concerned: 60.2%

Not concerned: 8.6%

4. Please select the hazard you think is the *highest threat* to your neighborhood:

Dam Failure: 1.1%
Drought: 6.5%
Erosion: 1.1%
Extreme Heat: 7.5%
Flood: 20.4%
Hazardous Materials: 9.7%
Hurricane: 33.3%
Land Subsidence: 1.1%
Lightning: 1.1%
Major Urban Fire: 3.2%
Terrorism: 1.1%
Tornado/Wind Storm: 10.8%
Other: 1.1%

4a. If “other”, please explain:

- The inability of city, county, & state law officers within Austin County to move traffic.

5. Please select the hazard you think is the *second highest threat* to your neighborhood:

Drought: 10.8%
Extreme Heat: 5.4%
Flood: 19.4%
Hail: 4.3%
Hazardous Materials: 5.4%
Hurricane: 16.1%
Lightning: 2.2%
Pipeline Failure: 5.4%
Sever Winter Storm: 1.1%
Terrorism: 2.2%
Tornado/Wind Storm: 18.3%
Wildland Fire: 4.3%
Other: 1.1%

5a. If “other”, please explain:

- Flooding due to poor drainage following heavy rain.
- None

6. Is there another hazard not listed in this survey that you think is a wide-scale threat to your neighborhood?

Yes: 16.9%
No: 83.1%

6a. If “yes”, please explain:

As in question 2a, comments are broadly categorized. Exact responses are found in “hgac.xls”

Environmental Degradation: 7.1%
Hazardous Materials: 14.2%
Pests/Disease: 21.4%
Propane Storage: 7.1%
Transportation: 28.6%
Water funnel off Bay: 7.1%
Wildland Fire: 7.1%

7. Is your home located on a floodplain?

Yes: 14%
No: 67.7%
I don't know: 17.2%

8. Do you have flood insurance?

Yes: 24.7%
No: 65.6%
I don't know: 8.6%

8a. If "no", why not?

Not located in floodplain: 36.1%
Too expensive: 8.2%
Not necessary because it never floods: 4.9%
Not necessary because I'm elevated or otherwise protected: 31.1%
Never really considered it: 0%
Other: 4.9%

8b. If "other", please explain:

- Live on very very high hill
- Rent the house
- Windstorm Insurance

9. Have you taken any actions to make your home or neighborhood more resistant to hazards?

Yes: 27%
No: 73%

9a. If "yes", please explain:

As in questions 2a and 6a, comments are broadly categorized. Exact responses are found in "hgac.xls"

Elevated home/structure: 16.7%
Filled with dirt: 12.5%
Cleared/cleaned home, neighborhood: 16.7%
Removed fire hazards: 12.5%
Joined organization or involved community: 16.7%
Strengthened home/structure: 20.8%

10. Are you interested in making your home or neighborhood more resistant to hazards?

Yes: 87.8%
No: 12.2%

11. What is the most effective way for you to receive information about how to make your home and neighborhood more resistant to hazards?

Percentages equal more than 100% as most respondents selected more than one medium.

Newspaper: 45.7%
Television: 44.6%
Radio: 21.7%
Internet: 10.9%
Mail: 37%
Public workshops/meetings: 15.2%
Other: 4.3%

11a. If “other”, please explain.

- County officials to do their job and stop lying
- Hwy 321 V.F.D.
- Liberty – Thicket Magazine – monthly publication
- Not applicable

12. In your opinion, what are some steps your local government could take to reduce or eliminate the risk of future hazard damages in your neighborhood?

Exact responses located in “hgac.xls” The following were categorized based on those responses, unless marked by a bulleted point. May add to over 100% as some respondents listed many suggestions.

Enforce laws/establish policies: 4.5%
Public education and awareness: 34.8%
Traffic/Evacuation procedures: 9.1%
Better drainage/drainage structures/clean ditches more often: 33.3%
Hazardous Material, truck routes more closely monitored: 7.6%
Better training for police, fire, EMS personnel: 4.5%
Insurance Rates: 3%

- Build a levee
- Fund emergency services! Sensible burn bans.
- Hire more deputies
- Good road improvement
- Water wells in event of drought
- Promote land and home ownership
- Provide facilities open to victims of disaster
- Restrict development in flood plain

13. Are there any other issues regarding the reduction of risk and loss associated with hazards or disasters in the community that you think are important?

Exact responses located in "hgac.xls" The following were categorized based on those responses, unless marked by a bulleted point.

- Public education and awareness: 15.8%
- Increased EMS: 15.8%
- Better funding/money: 15.8%
- Better training for police, fire, EMS personnel: 15.8%
- Safe evacuation route during a disaster
- Need more protective walkways in and around city.
- Keep slow burning the forest.
- Have the prisoners clean the ditches, let them pay for their keep

14. A number of community-wide activities can reduce our risk from hazards. In general, these activities fall into one of the following six broad categories. Please tell us how important each one is for your community to consider pursuing.

14.1 Prevention

- Very Important: 71.4%
- Somewhat Important: 25.3%
- Not Important: 3.3%

14.2 Property Protection

- Very Important: 42.2%
- Somewhat Important: 51.1%
- Not Important: 6.7%

14.3 Natural Resource Protection

- Very Important: 58.6%
- Somewhat Important: 35.6%
- Not Important: 5.7%

14.4 Structural Projects

- Very Important: 51.8%
- Somewhat Important: 36.5%
- Not Important: 11.8%

14.5 Emergency Services

- Very Important: 86.7%
- Somewhat Important: 12.2%
- Not Important: 1.1%

14.6 Public Education and Awareness

- Very Important: 82.2%
- Somewhat Important: 16.7%
- Not Important: 1.1%

**PUBLIC PARTICIPATION SURVEY
FOR
HAZARD MITIGATION PLANNING**

We need your help!

The Houston-Galveston Area Council (H-GAC) is currently engaged in a regional planning process to become less vulnerable to disasters, and your participation is important to us!

More than 75 local governments in an eight-county area (including Austin, Brazoria, Chambers, Galveston, Liberty, Montgomery, Walker and Waller counties) are working together with H-GAC to prepare a *Regional Hazard Mitigation Plan*. The purpose of this Plan is to identify and assess our region's disaster risks and determine how to best minimize or manage those risks. Upon completion, the Plan will be presented to each local governing body for adoption and then submitted to the Texas Division of Emergency Management and the Federal Emergency Management Agency for review and approval.

This survey questionnaire provides an opportunity for you to share your opinions and participate in the mitigation planning process. The information you provide will help us better understand your hazard concerns and can lead to activities that should help lessen the impact of future hazard events.

Please help us by completing this survey and returning it to:

**Christy Durham, Senior Environmental Planner
Houston-Galveston Area Council
P.O. Box 22777
Houston, TX 77227-2777**

Surveys can also be faxed to: (713) 993-4503

If you have any questions regarding this survey please contact Christy Durham at (713) 993-4589 or by e-mail at cdurham@h-gac.com. If you would like to learn more about the development of the Regional Hazard Mitigation Plan please visit our website at www.h-gac.com.

1. **What city/county do you live in?** _____

2. **Have you ever experienced or been impacted by a disaster?**
 Yes (please explain): _____
 No

3. **How concerned are you about the possibility of our community being impacted by a disaster?**
 Extremely concerned
 Somewhat concerned
 Not concerned

4. Please select the hazard you think is the *highest threat* to your neighborhood:

- Dam Failure
- Drought
- Earthquake
- Erosion
- Extreme Heat
- Flood
- Hail
- Hazardous Materials
- Hurricane
- Land Subsidence
- Landslide
- Lightning
- Major Urban Fire
- Pipeline Failure
- Severe Winter Storm
- Terrorism
- Tornado / Wind Storm
- Wildland Fire
- Other (please explain): _____

5. Please select the hazard you think is the *second highest threat* to your neighborhood:

- Dam Failure
- Drought
- Earthquake
- Erosion
- Extreme Heat
- Flood
- Hail
- Hazardous Materials
- Hurricane
- Land Subsidence
- Landslide
- Lightning
- Major Urban Fire
- Pipeline Failure
- Severe Winter Storm
- Terrorism
- Tornado / Wind Storm
- Wildland Fire
- Other (please explain): _____

6. Is there another hazard not listed in this survey that you think is a wide-scale threat to your neighborhood?

- Yes (please explain): _____
- No

7. Is your home located in a floodplain?

- Yes
- No
- I don't know

8. Do you have flood insurance?

- Yes
- No
- I don't know

a. If "No", why not?

- Not located in floodplain
- Too expensive
- Not necessary because it never floods
- Not necessary because I'm elevated or otherwise protected
- Never really considered it
- Other (please explain): _____

9. Have you taken any actions to make your home or neighborhood more resistant to hazards?

- Yes
- No

a. If "Yes", please explain:

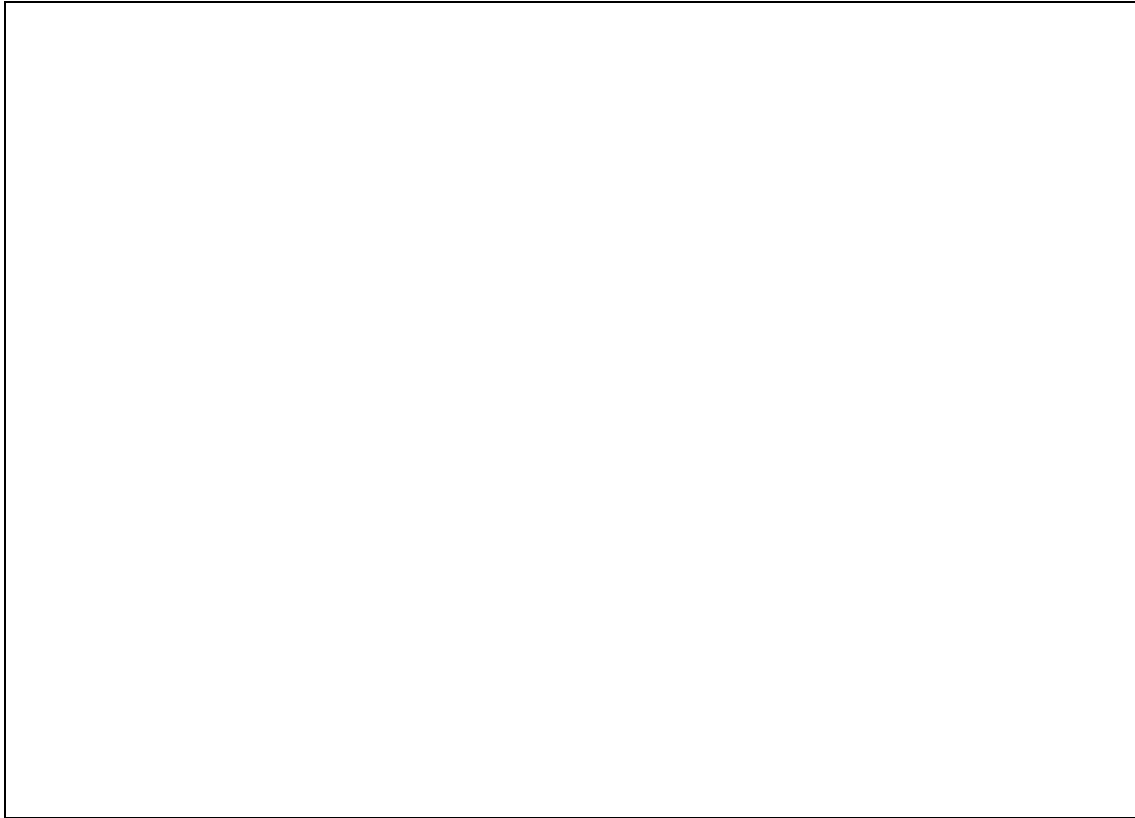
10. Are you interested in making your home or neighborhood more resistant to hazards?

- Yes
- No

11. What is the most effective way for you to receive information about how to make your home and neighborhood more resistant to hazards?

- Newspaper
- Television
- Radio
- Internet
- Mail
- Public workshops/meetings
- Other (please explain): _____

12. In your opinion, what are some steps your local government could take to reduce or eliminate the risk of future hazard damages in your neighborhood?



13. Are there any other issues regarding the reduction of risk and loss associated with hazards or disasters in the community that you think are important?



14. A number of community-wide activities can reduce our risk from hazards. In general, these activities fall into one of the following six broad categories. Please tell us how important you think each one is for your community to consider pursuing.

Category	Very Important	Somewhat Important	Not Important
<p><u>1. Prevention</u> Administrative or regulatory actions that influence the way land is developed and buildings are built. Examples include planning and zoning, building codes, open space preservation, and floodplain regulations.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><u>2. Property Protection</u> Actions that involve the modification of existing buildings to protect them from a hazard or removal from the hazard area. Examples include acquisition, relocation, elevation, structural retrofits, and storm shutters.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><u>3. Natural Resource Protection</u> Actions that, in addition to minimizing hazard losses, also preserve or restore the functions of natural systems. Examples include: floodplain protection, habitat preservation, slope stabilization, riparian buffers, and forest management.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><u>4. Structural Projects</u> Actions intended to lessen the impact of a hazard by modifying the natural progression of the hazard. Examples include dams, levees, seawalls, detention/retention basins, channel modification, retaining walls and storm sewers.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><u>5. Emergency Services</u> Actions that protect people and property during and immediately after a hazard event. Examples include warning systems, evacuation planning, emergency response training, and protection of critical emergency facilities or systems.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><u>6. Public Education and Awareness</u> Actions to inform citizens about hazards and the techniques they can use to protect themselves and their property. Examples include outreach projects, school education programs, library materials and demonstration events.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

THANK YOU FOR YOUR PARTICIPATION!