

**Spring Branch Independent School District  
Agenda Item Information**

**Date of Board Meeting:** January 26, 2009

**Subject:** Request for Resolution for Adoption of the Harris County All Hazard Mitigation Plan

**Administrator Responsible:**

**Name:** Jennifer Blaine, Ed.D.

**Position:** Associate Superintendent for Curriculum and Instruction

**Purpose of Agenda Item:**

**Information only**       **Action needed**       **Report**

**Additional Information and/or Back-Up:**

In order to position the district to seek funding through a FEMA Hazard Mitigation grant application, the Board must first take two actions. The first is to adopt the Harris County All Hazard Mitigation Plan. A copy of the resolution and the All Hazard Mitigation Plan follows this cover page.

Superintendent Klusmann and the SBISD Development Team approved Chief Brawner's request to seek approximately \$16 million in FEMA funding by using funds raised through construction bonds as matching funds. The bonds for renovations to the Tully Sports Complex and Stratford High School would be combined with FEMA funds to expand the scope of renovations to include: (1) increasing the thickness of the concrete paving, (2) replacing the deteriorated fencing, (3) providing lighting for night time emergency operations, (4) adding a helicopter landing pad, (5) building a bus inspection/storage building, and (6) providing a refueling facility for emergency vehicles. In addition, SBISD is providing storm sewer and water lines as part of the base proposal for outfall and discharge into the city system and outfall into a retention pond.

**Resolution for Adoption of the Harris County  
All Hazard Mitigation Plan**

WHEREAS, the Spring Branch Independent School District is subject to periodic flooding, hurricanes, and other natural hazards with the potential to cause damages to properties within the area; and

WHEREAS, the Spring Branch Independent School District desires to prepare and mitigate for such circumstances; and

WHEREAS, under the Disaster Mitigation Act of 2000, the United States Federal Emergency Management Agency (FEMA) requires that local jurisdictions have in place a FEMA-approved Hazard Mitigation Action Plan as a condition of receipt of certain future Federal mitigation funding after May 1, 2005; and

WHEREAS, Harris County and other municipalities in Harris County, in order to meet the requirement, have developed a countywide, multi-jurisdictional All Hazard Mitigation Plan, to which Spring Branch Independent School District will participate in a mitigation plan update;

WHEREAS, Spring Branch Independent School District designates Duncan F. Klussmann, Ed.D., Superintendent to assure that the All Hazard Mitigation Plan be reviewed at least annually and that any needed adjustment to SBISD's addendum to the All Hazard Mitigation Plan be developed and presented to the Board of Trustees for consideration; and vest Superintendent with the responsibility, authority, and the means to:

- (a) Inform all concerned parties of this action.
- (b) Develop an addendum to this All Hazard Mitigation Plan if the District's unique situation warrants such an addendum.

NOW, THEREFORE, BE IT RESOLVED that Spring Branch Independent School District Board of Trustees adopts the Harris County All Hazard Mitigation Plan for the Spring Branch Independent School District and agrees to take such other official action as may be reasonably necessary to carry out the objectives of the All Hazard Mitigation Plan.

Approved this 26<sup>th</sup> day of January, 2009  
Signed by:

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Susan Kellner, President, Spring Branch Independent School District Board of Trustees

Attest:

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Susan Mathews, Secretary, Spring Branch Independent School District Board of Trustees

# LOCALLY SPECIFIC MITIGATION ACTIONS

## RECORD OF CHANGES

### Harris County All Hazard Mitigation Plan

### Locally Specific Mitigation Plans

<b>Change #</b>	<b>Date of Change</b>	<b>Entered By</b>	<b>Date Entered</b>
1	7-16-2007	R Cornelius, P 18	8-31-2007
2	8-31-2007	R Cornelius, P 41	8-31-2007

# LOCALLY SPECIFIC MITIGATION ACTIONS

The mitigation actions listed below by are intended to reduce the impact of future natural and human-caused hazards. Actions include both County and jurisdiction-specific policies and projects. In order to create localized action-oriented projects and policies, each proposed mitigation measure is tied to the series of items described below.

**Category:** By linking an action to a broader category, it enables one to identify the types of measures in place and identify possible alternatives. It is important for each jurisdiction to review the types of mitigation actions proposed to see if they represent a comprehensive and diverse set of policies and projects. The over reliance on one or two types of mitigation techniques limits the scope of an overall mitigation strategy.

**Hazards Addressed:** The identification of the hazards addressed by chosen actions allows a jurisdiction to determine if they are implementing policies and projects across the range of hazards identified in the risk assessment, particularly those classified as high and moderate risk. As new hazards are identified or existing threats increase over time, jurisdictions should adopt additional mitigation techniques to address them.

**Priority:** The prioritization of actions is required by the Disaster Mitigation Act and allows jurisdictions to focus their efforts on those policies and projects they believe address the most pressing needs. The prioritization of the actions chosen should reflect a combination of hazard risk and the existing capability to implement them. In this plan, Harris County and participating jurisdictions have chosen to prioritize actions using a high, moderate and low scale.

**Estimated Cost:** Most of the actions identified require some level of financial commitment. Therefore, in order to implement them, a cost estimate is necessary. This represents an important initial step in the process of identifying potential sources of funding. At this point, the costs provided are estimates and may change significantly over time as each proposed action's scope is more accurately defined.

**Potential Funding Sources:** Whenever possible, federal, state, local or private funding sources are identified. In some cases, actions may require only staff time and resources. In other cases, materials may be available free of charge. It is important to note that an array of funding sources are frequently identified, some of which may not prove eligible as projects are more clearly defined. Grants management is often a process of creatively identifying a series of possible funds to achieve desired objectives. This may involve the use of funds that one would not ordinarily associate with hazard mitigation. In other situations, a project may require a combination of the funding sources listed. For example, one funding source may allow for a study in order to define the necessary approach. Another funding source may be required to implement the project. It was the intent of this plan to assist Harris County and participating municipalities find appropriate funds to implement identified projects and help to educate officials about the range of grant programs available.

**Lead Agency/Department Responsible:** The success of implementation relies heavily on clearly identifying an individual or group of people who will be held accountable for the oversight of a specific policy or project. Therefore, if a proposed action could not be linked to a specific agency or department, it was not included in the plan.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

Implementation Schedule: Like the prioritization of actions, the establishment of an implementation schedule makes the plan more strategic in nature, providing those responsible for implementation with an understanding of expectations. Whenever possible, a rough estimate of a desired implementation schedule was provided.

Harris County .....	4
Baytown .....	15
Bellaire .....	24
Bunker Hill Village.....	39
Deer Park.....	40
Galena Park.....	42
Hedwig Village .....	44
Hillshire Village .....	45
Humble .....	46
Hunters Creek Village.....	47
Jersey Village .....	48
La Porte .....	54
Nassau Bay .....	60
Pasadena.....	61
Piney Point.....	67
Seabrook .....	68
Southside Place.....	69
Spring Valley.....	73
Taylor Lake Village .....	74
Tomball .....	79
Webster .....	80
West University Place.....	81
Lee College (located in Baytown).....	95
Harris County Department of Education.....	97
Harris County Flood Control District.....	100

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## *Harris County Hazard Mitigation Actions*

Harris County and participating municipalities identified the following mitigation actions.

### Harris County

<b>Harris County Mitigation Action 1</b>	<b>Develop and implement debris modeling tool.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Hurricane Wind, Flooding, Tornado
Priority (High, Moderate, Low):	High
Estimated Cost:	\$30,000
Potential Funding Sources:	FEMA - Emergency Management Performance Grants, Public Assistance (following federally declared disaster), Pre-Disaster Mitigation Grant Program, FEMA – All Hazards Emergency Operational Planning, FEMA – Hurricane Local Grant Program
Lead Agency/Department Responsible:	Harris County Office of Emergency Management
Implementation Schedule:	6 months from funding date

<b>Harris County Mitigation Action 2</b>	<b>Conduct FEMA debris monitoring workshop/training.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Hurricane Wind, Flooding, Tornado
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000
Potential Funding Sources:	FEMA – Emergency Management Performance Grants, Public Assistance (following federally declared disaster), Pre-Disaster Mitigation Grant Program, FEMA – All Hazards Emergency Operational Planning, FEMA – Hurricane Local Grant Program
Lead Agency/Department Responsible:	Harris County Office of Emergency Management
Implementation Schedule:	6 months from funding date

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Mitigation Action 3</b>	<b>Conduct public outreach to educate local builders on disaster-resistant building methods.</b>
Category:	Public Education and Awareness
Hazard(s) Addressed:	Hurricane Wind, Flooding and Tornado
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000
Potential Funding Sources:	Pre-Disaster Mitigation Grant Program, FEMA – All Hazards Emergency Operational Planning, FEMA – Emergency Management Performance Grants, FEMA – Hurricane Local Grant Program, FEMA – Emergency Management Performance Grants, Texas Water Development Board – Research and Planning Fund Grants (Flood Protection Planning Grants)
Lead Agency/Department Responsible:	Harris County Permitting
Implementation Schedule:	6 months from funding date

<b>Harris County Mitigation Action 4</b>	<b>Conduct information workshops on the Community Rating System (CRS).</b>
Category:	Public Education and Awareness
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000
Potential Funding Sources:	Hazard Mitigation Grant Program, Pre-Disaster Mitigation Grant Program, National Flood Insurance Program, Texas Water Development Board – Research and Planning Fund Grants (Flood Protection Planning Grants), FEMA – Hurricane Local Grant Program
Lead Agency/Department Responsible:	Harris County Permitting
Implementation Schedule:	6 months from funding date

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Mitigation Action 5</b>	<b>Conduct workshop to train communities how to apply for a Pre-Disaster Mitigation (PDM) or Hazard Mitigation Grant Program (HMGP).</b>	
Category:	Public Education and Awareness, Preparedness	
Hazard(s) Addressed:	Hurricane Wind, Flood, Tornado	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$10,000	
Potential Funding Sources:	Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program, FEMA – All Hazards Emergency Operational Planning, FEMA – Emergency Management Performance Grants, FEMA - Hazard Mitigation Technical Assistance Program, FEMA – TARC	
Lead Agency/Department Responsible:	Harris County Flood Control District	
Implementation Schedule:	6 months from funding date	

<b>Harris County Mitigation Action 6</b>	<b>Increase Public Awareness by producing an annual brochure explaining how to minimize flood hazards and mailing it to citizens who are located in the 100-year floodplain.</b>	
Category:	Public Education and Awareness	
Hazard(s) Addressed:	Flood/Natural Disaster	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$20,000/year	
Potential Funding Sources:	Operating budget	
Lead Agency/Department Responsible:	Harris County Public Infrastructure Department – Permits Group	
Implementation Schedule:	Completed October 2003	



# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Mitigation Action 7</b>	<b>Develop a flood prevention library to help citizens effectively reduce damages due to flooding. This will also help Harris County improve its Community Rating System standing.</b>
Category:	Public Education and Awareness
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Minimal – brochures supplied by FEMA free of charge; need library staff to implement and verify that it is done.
Potential Funding Sources:	Operating budget
Lead Agency/Department Responsible:	Harris County Public Infrastructure Department – Permits Group
Implementation Schedule:	In progress

<b>Harris County Mitigation Action 8</b>	<b>Improve Community Rating System Points.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time
Potential Funding Sources:	Operating budget
Lead Agency/Department Responsible:	Harris County Public Infrastructure Department – Permits Group
Implementation Schedule:	In progress. Harris County is entering the CRS program in May 2004. Beginning in 2005, the County can try to obtain more points.

<b>Harris County Mitigation Action 9</b>	<b>Lobby the State Legislature to allow Harris County to adopt/regulate building codes. This is necessary for the community to be able to get below a class 8 CRS rating.</b>
Category:	Prevention
Hazard(s) Addressed:	Multiple Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Little to no cost associated with this action.
Potential Funding Sources:	Operating Budget
Lead Agency/Department Responsible:	Harris County Public Infrastructure Department – Permits Group
Implementation Schedule:	2004-2005

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Mitigation Action 10</b>	<b>Update floodplain and subdivision regulations to reduce/prevent flooding.</b>
Category:	Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time
Potential Funding Sources:	Operating Budget
Lead Agency/Department Responsible:	Harris County Public Infrastructure Department – Permits Group
Implementation Schedule:	Once TSARP data is expected to be adopted by FEMA (2005?)

<b>Harris County Mitigation Action 11</b>	<b>Improve public communication and use of “e-government” (e.g. plats, regulations, forms online).</b>
Category:	Public Education and Awareness
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	High
Estimated Cost:	\$500,000 development, Annual maintenance costs unknown
Potential Funding Sources:	Operating Budget
Lead Agency/Department Responsible:	Harris County Public Infrastructure Department – Permits Group
Implementation Schedule:	In progress – estimated completion date of 2005

<b>Harris County Mitigation Action 12</b>	<b>Improve public awareness regarding hazards and the steps that can be taken to reduce their impact.</b>
Category:	Public Information and Awareness
Hazard(s) Addressed:	All Natural Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000, Materials provided by FEMA and Red Cross free of charge
Potential Funding Sources:	Flood Mitigation Assistance Program (Technical Assistance, Planning), FEMA- National Flood Insurance Program, Texas Water Development Board – Research and Planning Fund Grants (Flood Protection Planning Grants), Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, FEMA – Emergency Management Institute
Lead Agency/Department Responsible:	Harris County
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Mitigation Action 13</b>	<b>Develop flood prevention library.</b>
Category:	Public Information and Awareness
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000, Materials available from FEMA and Red Cross
Potential Funding Sources:	Flood Mitigation Assistance Program, Hazard Mitigation Grant Program, Pre-Disaster Mitigation, Flood Mitigation Assistance Program (Technical Assistance, Planning), FEMA - National Flood Insurance Program, Texas Water Development Board – Research and Planning Fund Grants (Flood Protection Planning Grants), FEMA – Emergency Management Institute
Lead Agency/Department Responsible:	Harris County Permitting, Harris County Flood Control District
Implementation Schedule:	Dependant on funding

<b>Harris County Mitigation Action 14</b>	<b>Enhance CRS rating one point per year for the next three years.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000
Potential Funding Sources:	Flood Mitigation Assistance Program (Technical Assistance, Planning), National Flood Insurance Program, Texas Water Development Board – Research and Planning Fund Grants (Flood Protection Planning Grants), FEMA – Hurricane Local Grant Program
Lead Agency/Department Responsible:	Harris County Permitting, Harris County Flood Control District
Implementation Schedule:	November 2007

<b>Harris County Mitigation Action 15</b>	<b>Work with state to develop and implement building codes.</b>
Category:	Prevention
Hazard(s) Addressed:	Hurricane, High Winds, Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources
Potential Funding Sources:	None needed
Lead Agency/Department Responsible:	Harris County Permitting
Implementation Schedule:	Ongoing

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Mitigation Action 16</b>	<b>Update floodplain ordinance to reduce or prevent flood-related damages.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000, Staff time and resources
Potential Funding Sources:	Flood Mitigation Assistance Program (planning), Hazard Mitigation Grant Program, Texas Water Development Board – Research and Planning Fund Grants (Flood Protection Planning Grants), Pre-Disaster Mitigation Program
Lead Agency/Department Responsible:	Harris County Permitting, Harris County Flood Control District
Implementation Schedule:	Ongoing

<b>Harris County Mitigation Action 17</b>	<b>Update subdivision regulations to reduce or prevent flood-related damages.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000, Staff time and resources
Potential Funding Sources:	Flood Mitigation Assistance Program (planning), National Flood Insurance Program, Texas Water Development Board – Research and Planning Fund Grants (Flood Protection Planning Grants), FEMA – Hurricane Local Grant Program
Lead Agency/Department Responsible:	Harris County
Implementation Schedule:	Ongoing

<b>Harris County Mitigation Action 18</b>	<b>Work with FEMA and Harris County Flood Control District to QA/QC repetitive loss list.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000, Staff time and resources
Potential Funding Sources:	Flood Mitigation Assistance Program, Pre-Disaster Mitigation Program, Texas Water Development Board – Research and Planning Fund Grants (Flood Protection Planning Grants), FEMA - Hazard Mitigation Technical Assistance Program (post-disaster)
Lead Agency/Department Responsible:	Harris County
Implementation Schedule:	Ongoing

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Mitigation Action 19</b>	<b>Improve inter-agency coordination to develop and complete eligible grant applications.</b>
Category:	Prevention
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000
Potential Funding Sources:	Pre-Disaster Mitigation Program, Hazard Mitigation Assistance Program, Flood Mitigation Assistance Program, FEMA - Hazard Mitigation Technical Assistance Program (post-disaster), FEMA - TARC
Lead Agency/Department Responsible:	Harris County
Implementation Schedule:	Ongoing

<b>Harris County Mitigation Action 20</b>	<b>Improve public communication via e-government system (e.g. plat review, regulations, on-line use of forms, etc.).</b>
Category:	Public Information and Awareness
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000
Potential Funding Sources:	Hazard Mitigation Assistance Program, Pre-Disaster Mitigation Program, Flood Mitigation Assistance Program (planning, technical assistance)
Lead Agency/Department Responsible:	Harris County
Implementation Schedule:	Ongoing

<b>Harris County Office of Emergency Management Mitigation Action 1</b>	<b>Develop county-wide shelter-in-place education and outreach effort.</b>
Category:	Public Information and Awareness
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000
Potential Funding Sources:	Hazard Mitigation Grant Program, FEMA - Hurricane Awareness Program, Pre-Disaster Mitigation Program, FEMA – Emergency Management Performance Grants, Department of Justice – State and Local Domestic Preparedness Exercise Support, Department of Justice – State and Local Domestic Preparedness Technical Assistance, Department of Justice – State and Local Domestic Preparedness Training Program, FEMA – First Responder Counter-Terrorism Training Assistance
Lead Agency/Department Responsible:	Harris County Office of Emergency Management
Implementation Schedule:	Ongoing

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Office of Emergency Management Mitigation Action 2</b>	<b>Develop county-wide interoperable communication system.</b>
Category:	Emergency Services
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – All-Hazards Emergency Operational Planning, FEMA - Emergency Management Performance Grants
Lead Agency/Department Responsible:	Harris County Office of Emergency Management
Implementation Schedule:	Dependant on funding

<b>Harris County Office of Emergency Management Mitigation Action 3</b>	<b>Utilize Geographic Information System to identify and map hazard areas.</b>
Category:	Prevention
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$50,000
Potential Funding Sources:	Hazard Mitigation Grant Program, Pre-Disaster Mitigation, Flood Mitigation Assistance Program, Texas Water Development Board – Texas Natural Resources Information System
Lead Agency/Department Responsible:	Harris County Office of Emergency Management
Implementation Schedule:	Ongoing

<b>Harris County Office of Emergency Management Mitigation Action 4</b>	<b>Identify stream reaches that have overflowed their banks and caused potential damages.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood, Hurricane
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – Flood Hazard Mapping Program, FEMA – Flood Recovery Mapping (post-disaster), FEMA - Hazard Mitigation Technical Assistance Program (post-disaster)
Lead Agency/Department Responsible:	Harris County Flood Control District
Implementation Schedule:	Ongoing

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Office of Emergency Management Mitigation Action 5</b>	<b>Identify hurricane evacuation signage areas.</b>
Category:	Prevention
Hazard(s) Addressed:	Hurricane, Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000
Potential Funding Sources:	FEMA – Hurricane Local Grant Program, Pre-Disaster Mitigation Program, Hazard Mitigation Assistance Program, Texas Water Development Board – Texas Natural Resources Information System
Lead Agency/Department Responsible:	Harris County Office of Emergency Management
Implementation Schedule:	Dependant on funding

<b>Harris County Office of Emergency Management Mitigation Action 6</b>	<b>Develop regional exercise training programs.</b>
Category:	Prevention
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$100,000
Potential Funding Sources:	FEMA – First Responder Counter-Terrorism Training Assistance, FEMA – Hazardous Materials Assistance Program, FEMA – Hurricane Local Grant Program, Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, FEMA – Emergency Management Performance Grants, Department of Justice – State and Local Domestic Preparedness Exercise Support, Department of Justice – State and Local Domestic Preparedness Technical Assistance, Department of Justice – State and Local Domestic Preparedness Training Program, FEMA – Emergency Management Performance Grant
Lead Agency/Department Responsible:	Harris county Office of Emergency Management
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Office of Emergency Management Mitigation Action 7</b>	<b>Finalize personnel and equipment for HAZMAT teams.</b>
Category:	Prevention
Hazard(s) Addressed:	HAZMAT, Technological Accidents, Terrorism
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – First Responder Counter-Terrorism Training Assistance, FEMA – Hazardous Materials Assistance Program, FEMA – Emergency Management Performance Grants, Department of Justice – State and Local Domestic Preparedness Exercise Support, Department of Justice – State and Local Domestic Preparedness Technical Assistance
Lead Agency/Department Responsible:	Harris County Office of Emergency Management
Implementation Schedule:	Ongoing

<b>Harris County Office of Emergency Management Mitigation Action 8</b>	<b>Coordinate county-wide damage assessment teams.</b>
Category:	Prevention
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000
Potential Funding Sources:	FEMA – All Hazards Emergency Operational Planning, Pre-Disaster Mitigation Program, FEMA – Emergency Management Performance Grant, FEMA – Hurricane Local Grant Program, Public Assistance (post-disaster)
Lead Agency/Department Responsible:	Harris County Office of Emergency Management
Implementation Schedule:	Ongoing



# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Baytown

<b>City of Baytown Mitigation Action 1</b>	<b>Increase hazards information at public library.</b>
Category:	Public Education and Awareness
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$5,000; Most materials free of charge from FEMA and Red Cross
Potential Funding Sources:	Flood Mitigation Assistance Program, Hazard Mitigation Grant Program, Pre-Disaster Mitigation, FEMA – Emergency Management Performance Grant, Texas Water Development Board - Texas Natural Resources Information System, FEMA – Emergency Management Institute, Red Cross
Lead Agency/Department Responsible:	Building Services Inspection Division
Implementation Schedule:	2005 through 2009 (annually)

<b>City of Baytown Mitigation Action 2</b>	<b>Encourage homeowners to purchase flood insurance.</b>
Category:	Public Education and Awareness, Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$5,000; Materials available from FEMA free of charge
Potential Funding Sources:	Flood Mitigation Assistance Program, Hazard Mitigation Assistance Program, Pre-Disaster Mitigation
Lead Agency/Department Responsible:	Building Services Inspection Division
Implementation Schedule:	2005 through 2009 (CRS annual activity)

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Baytown Mitigation Action 3</b>	<b>Implement master drainage plan.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$150,000
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	2005-2006

<b>City of Baytown Mitigation Action 4</b>	<b>Implement detention pond project.</b>
Category:	Structural Project
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$500,000
Potential Funding Sources:	Texas Water Development Board – State Participation and Storage Acquisition Program, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	2005 though 2009

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Baytown Mitigation Action 5</b>	<b>Build water treatment plan to increase fire protection.</b>
Category:	Structural Project
Hazard(s) Addressed:	Fire
Priority (High, Moderate, Low):	High
Estimated Cost:	
Potential Funding Sources:	Texas Water Development Board – Clean Water State Revolving Fund, Texas Water Development Board – Research and Planning Fund Grants (Regional Planning for Water Supply and Wastewater Treatment and Collection), Texas Water Development Board – Texas Water Development Fund, Environmental Protection Agency – Drinking Water State Revolving Fund
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	2005 through 2009

<b>City of Baytown Mitigation Action 6</b>	<b>Repair or replace damaged storm water and sewer system.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Texas Water Development Board – Clean Water State Revolving Fund, Texas Water Development Board – Research and Planning Fund Grants (Regional Planning for Water Supply and Wastewater Treatment and Collection), Texas Water Development Board – Texas Water Development Fund, Environmental Protection Agency – Drinking Water State Revolving Fund, Public Assistance (406 mitigation) – following a federally declared disaster
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	2005 through 2009

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Baytown Mitigation Action 7</b>	<b>Improve the City of Baytown CRS Classification from an Class 7 Community to a Class 5 Community over a period from 2004 to 2009.</b>	
Category:	Prevention	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Unknown	
Potential Funding Sources:	Unknown, Operating Budget	
Lead Agency/Department Responsible:	City of Baytown	
Implementation Schedule:	2004 through 2009	

<b>City of Baytown Mitigation Action 8</b>	<b>Build a city employee hurricane shelter / community center</b>	
Category:	Structural Project	
Hazard(s) Addressed:	Hurricane	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$4,500,000	
Potential Funding Sources:		
Lead Agency/Department Responsible:		
Implementation Schedule:	1 <sup>st</sup> QTR 2008 - Let bids for design and award design contract; 2 <sup>nd</sup> QTR 2008 - Develop and finalize building design and purchase land; 3 <sup>rd</sup> QTR 2008 – Lets bids for contractor and complete site work; 4 <sup>th</sup> QTR 2008 – Award construction contract and begin construction; 1 <sup>st</sup> QTR 2009 – By end of quarter complete 33% construction; 2 <sup>nd</sup> QTR 2009 – By end of quarter complete 66% construction; 3 <sup>rd</sup> QTR 2009 – By end quarter complete 100% of construction; 4 <sup>th</sup> QTR 2009 – Take acceptance of building and begin using for purpose intended	

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Baytown Mitigation Action 9</b>	<b>Harden critical city facilities to lessen the impacts of natural and human-caused hazards</b>	
Category:	Property Protection	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$500,000	
Potential Funding Sources:		
Lead Agency/Department Responsible:		
Implementation Schedule:	1 <sup>st</sup> QTR 2008 – Develop bid specifications and let bids to prospective bidders; 2 <sup>nd</sup> QTR 2008 – Accept bids, award contract, and start project; 3 <sup>rd</sup> QTR 2008 – Complete project	

<b>City of Baytown Mitigation Action 10</b>	<b>Implement buyout program for repetitive loss properties: 9 properties</b>	
Category:	Prevention	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$1,040,945	
Potential Funding Sources:		
Lead Agency/Department Responsible:		
Implementation Schedule:	1 <sup>st</sup> QTR 2008 – Submit buyout proposal to first five property owners; 3 <sup>rd</sup> QTR 2008 – Finalize buyout proposal; 4 <sup>th</sup> QTR 2008 – Complete purchase and demolition of properties; 1 <sup>st</sup> QTR 2009 – Submit buyout proposal to last four property owners; 3 <sup>rd</sup> QTR 2009 – Finalize buyout proposal; 4 <sup>th</sup> QTR 2009 – Complete purchase and demolition of properties	

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Baytown Mitigation Action 11</b>	<b>Replace emergency 250 Kw generator at Police Headquarters</b>	
Category:	Prevention	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$150,000	
Potential Funding Sources:		
Lead Agency/Department Responsible:		
Implementation Schedule:	1 <sup>st</sup> QTR 2008 – Develop bid specifications and solicit bids; 2 <sup>nd</sup> QTR 2008 – Award purchase order; 3 <sup>rd</sup> QTR 2008 – Complete installation project	

<b>City of Baytown Mitigation Action 12</b>	<b>Increase hazards information at public library.</b>	
Category:	Public Education and Awareness	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$5,000; Most materials free of charge from FEMA and Red Cross	
Potential Funding Sources:	Flood Mitigation Assistance Program, Hazard Mitigation Grant Program, Pre-Disaster Mitigation, FEMA – Emergency Management Performance Grant, Texas Water Development Board - Texas Natural Resources Information System, FEMA – Emergency Management Institute, Red Cross	
Lead Agency/Department Responsible:		
Implementation Schedule:		

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Baytown Mitigation Action 13</b>	<b>Encourage homeowners to purchase flood insurance.</b>
Category:	Public Education and Awareness, Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$5,000; Materials available from FEMA free of charge
Potential Funding Sources:	Flood Mitigation Assistance Program, Hazard Mitigation Assistance Program, Pre-Disaster Mitigation
Lead Agency/Department Responsible:	
Implementation Schedule:	

<b>City of Baytown Mitigation Action 14</b>	<b>Implement master drainage plan.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	
Implementation Schedule:	

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Baytown Mitigation Action 15</b>	<b>Implement detention pond project.</b>
Category:	Structural Project
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	
Potential Funding Sources:	Texas Water Development Board – State Participation and Storage Acquisition Program, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	
Implementation Schedule:	

<b>City of Baytown Mitigation Action 16</b>	<b>Build water treatment plant to increase fire protection.</b>
Category:	Structural Project
Hazard(s) Addressed:	Fire
Priority (High, Moderate, Low):	High
Estimated Cost:	
Potential Funding Sources:	Texas Water Development Board – Clean Water State Revolving Fund, Texas Water Development Board – Research and Planning Fund Grants (Regional Planning for Water Supply and Wastewater Treatment and Collection), Texas Water Development Board – Texas Water Development Fund, Environmental Protection Agency – Drinking Water State Revolving Fund
Lead Agency/Department Responsible:	
Implementation Schedule:	



# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Baytown Mitigation Action 17</b>	<b>Repair or replace damaged storm water and sewer system.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Texas Water Development Board – Clean Water State Revolving Fund, Texas Water Development Board – Research and Planning Fund Grants (Regional Planning for Water Supply and Wastewater Treatment and Collection), Texas Water Development Board – Texas Water Development Fund, Environmental Protection Agency – Drinking Water State Revolving Fund, Public Assistance (406 mitigation) – following a federally declared disaster
Lead Agency/Department Responsible:	
Implementation Schedule:	

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Bellaire

<b>Bellaire Mitigation Action 1</b>	<b>Enhance CRS rating one point per year for the next three years.</b>	
Category:	Prevention	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$10,000	
Potential Funding Sources:	Flood Mitigation Assistance Program (Technical Assistance, Planning), National Flood Insurance Program, Texas Water Development Board – Research and Planning Fund Grants (Flood Protection Planning Grants), FEMA – Hurricane Local Grant Program	
Lead Agency/Department Responsible:	National Floodplain Administrator	
Implementation Schedule:	November 2007	

<b>Bellaire Mitigation Action 2</b>	<b>Conduct open meeting forum to hear and address issues associated with flooding.</b>	
Category:	Public Information and Awareness	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$1,000 (expenses associated with production and distribution of flyers announcing forum)	
Potential Funding Sources:	City budget	
Lead Agency/Department Responsible:	City staff	
Implementation Schedule:	Ongoing, to include meetings following flood events	

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 3</b>	<b>Develop public education and outreach program to address natural hazards.</b>
Category:	Public Education and Awareness
Hazard(s) Addressed:	All Natural Hazards
Priority (High, Moderate, Low):	Low
Estimated Cost:	\$10,000, Materials provided by FEMA and Red Cross free of charge
Potential Funding Sources:	Flood Mitigation Assistance Program, Hazard Mitigation Grant Program, Pre-Disaster Mitigation, FEMA – Emergency Management Performance Grant, Texas Water Development Board - Texas Natural Resources Information System, FEMA – Emergency Management Institute, Red Cross
Lead Agency/Department Responsible:	City of Bellaire
Implementation Schedule:	November 2005

<b>Bellaire Mitigation Action 4</b>	<b>Implement a backup Emergency Operations Center (EOC) to be used should the primary EOC at the Police Station become inoperable. Arrange for staffing, equipment, and supplies.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operating Budget
Lead Agency/Department Responsible:	J.J. Bettega, Fire Chief, will be responsible for implementing this activity.
Implementation Schedule:	A site for the backup EOC will be located in 2004. Staffing to the EOC will be identified and equipment and supplies procured in 2005.

<b>Bellaire Mitigation Action 5</b>	<b>Implement an alert system consisting of graduated levels of response based on the relative threat of flooding. A measured response by Staff will be predicated on the alert level.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operating Budget
Lead Agency/Department Responsible:	J.J. Bettega, Fire Chief, will be responsible for implementing this activity.
Implementation Schedule:	An alert system will be developed and implemented in 2004 by Mr. Satterwhite and Staff.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 6</b>	<b>Provide emergency power generation for the Central and Feld Park water plants, lift stations, and wastewater treatment plant.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Capital Improvements Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Identify the methods for providing emergency power at these sites in 2004. Begin implementing these methods in 2005 and finish in 2006.

<b>Bellaire Mitigation Action 7</b>	<b>Identify the equipment and structures that could be flooded and implement steps to protect them.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Capital Improvements Budget
Lead Agency/Department Responsible:	Each department head will be responsible for implementing this activity within their department.
Implementation Schedule:	Identify the equipment and structures that could be damaged by flooding in 2004. Begin implementing mitigation activities in 2005 and complete in 2007

<b>Bellaire Mitigation Action 8</b>	<b>Create a map of emergency routes to be used by emergency vehicles in flooding conditions. Utilize historical data of known safe routes along with elevation data and floodplain maps.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operating Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Gather information on historical and elevation data and floodplain maps in 2004. Create and distribute maps for other departments in 2005.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 9</b>	<b>Contact representatives from Southwestern Bell and Centerpoint Energy and discuss how their disaster plans fit together with those of the City. Incorporate activities that are applicable to the City's planning.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operating Budget
Lead Agency/Department Responsible:	Diane White, Special Projects/Budget Director, will be responsible for implementing this action.
Implementation Schedule:	Meet with representatives from Southwestern Bell and Centerpoint Energy in 2004. Implement applicable activities in 2005.

<b>Bellaire Mitigation Action 10</b>	<b>Identify those residents with special needs and contact them before and after flooding to determine if they require assistance.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Flooding
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operating Budget
Lead Agency/Department Responsible:	J.J. Bettega, Fire Chief, will be responsible for implementing this activity.
Implementation Schedule:	Identify residents with special needs that wish to be contacted in 2004. Implement communications with these residents in 2005.

<b>Bellaire Mitigation Action 11</b>	<b>Identify a contact person with Centerpoint Energy to hasten alerts in an emergency.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operating Budget
Lead Agency/Department Responsible:	J.J. Bettega, Fire Chief, will be responsible for implementing this activity.
Implementation Schedule:	Identify a contact person with Centerpoint Energy in 2004.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 12</b>	<b>Develop a plan to inform the residents and to take action should there be an inadequate supply of water or the water supply become contaminated</b>
Category:	Emergency Services
Hazard(s) Addressed:	Drought, Terrorism, Hazardous Materials
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operating Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Develop and implement this activity in 2004.

<b>Bellaire Mitigation Action 13</b>	<b>Assess the need for a rescue craft and training of personnel in its use for high water rescues.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Capital Improvements Budget
Lead Agency/Department Responsible:	J.J. Bettega, Fire Chief, will be responsible for implementing this activity.
Implementation Schedule:	Assess the need for a rescue craft and train personnel in 2005.

<b>Bellaire Mitigation Action 14</b>	<b>Notify local radio and television stations of impassable streets with suggested alternative routes.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Capital Improvements Budget
Lead Agency/Department Responsible:	J.J. Bettega, Fire Chief will be responsible for implementing this activity.
Implementation Schedule:	Determine streets with a history of becoming impassable during flooding and identify alternative routes around these streets in 2004. Contact and coordinate with local radio and television stations and implement this activity in 2005.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 15</b>	<b>Develop and implement a policy for staffing and attendance by employees before, during and after a flood event.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Each department head will be responsible for implementing this activity within their department.
Implementation Schedule:	Develop and implement this activity in 2004.

<b>Bellaire Mitigation Action 16</b>	<b>Create ordinance to stop or prevent discharge of debris into the storm sewer system.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Lee Cabello, National Floodplain Administrator, will be responsible for implementing this activity.
Implementation Schedule:	Develop and implement this activity in 2004.

<b>Bellaire Mitigation Action 17</b>	<b>Review and revise Drainage Ordinance for both residential and commercial construction. Review and revise Flood Damage Prevention Ordinance to require building slab finished floor to be a minimum of one foot above base flood. Review and revise ordinances concerning lot coverage and lot fill to mitigate flood damage.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Lee Cabello, National Floodplain Administrator, will be responsible for implementing this activity.
Implementation Schedule:	Develop and implement this activity in 2004.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 18</b>	<b>Coordinate with Red Cross to set up shelters and conduct disaster planning.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	J.J. Bettega, Fire Chief, will be responsible for implementing this activity.
Implementation Schedule:	Develop and implement this activity in 2004.

<b>Bellaire Mitigation Action 19</b>	<b>Develop a plan for mobilization of mission-essential vehicles and equipment and staffing for mobilization sites.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Each department head will be responsible for implementing this activity within their department.
Implementation Schedule:	Develop and implement this activity in 2004.

<b>Bellaire Mitigation Action 20</b>	<b>Provide a recommendation for the use of alternative construction techniques that would afford the elimination of fill in new construction.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Lee Cabello, National Floodplain Administrator, will be responsible for implementing this activity.
Implementation Schedule:	Finalize a recommendation in 2004.



# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 21</b>	<b>Include in capital improvements projects an evaluation of the impact on flooding. Evaluate lowering the elevation of streets during reconstruction.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Capital Improvements Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Develop and implement this activity in 2004.

<b>Bellaire Mitigation Action 22</b>	<b>Create regional partnerships with the City of Houston and TxDOT so that Bellaire may be apprised of external developments for which runoff would affect Bellaire.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Develop and implement this activity in 2004.

<b>Bellaire Mitigation Action 23</b>	<b>Create and implement a schedule for maintenance and repair of inlets and storm sewers.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Develop and implement this activity in 2004.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 24</b>	<b>Continue to identify cost-effective methods to improve the City's CRS rating.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Lee Cabello, National Floodplain Administrator, will be responsible for implementing this activity.
Implementation Schedule:	Develop and implement this activity in 2004.

<b>Bellaire Mitigation Action 25</b>	<b>Investigate alternative strategies for natural mitigation. The strategies would include rain gardens, backyard detention facilities, the City tree ordinance, and detention facilities in City parks.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Evaluate alternative natural mitigation strategies for effectiveness and present findings for the annual Plan evaluation report due in 2005.

<b>Bellaire Mitigation Action 26</b>	<b>Update the Stormwater Management Plan to include an evaluation of extreme event sheet flow patterns, reevaluate the City's drainage infrastructure, evaluate impacts of redevelopment, evaluate impacts of subsidence, lot fill, and lot coverage, and other issues impacting the City's drainage systems.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Develop and implement this activity in 2004.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 27</b>	<b>Periodically distribute messages to residents advising them of the following information: the dangers of driving in high water; staying abreast of weather situations; the dangers of electricity in high water; the dangers of blocked storm sewers and what residents can do to help; the dangers of walking, playing, or contacting flood waters; the dangers to mechanical systems from flooding; the dangers of mold caused by flooding; the reasons topography and climate make this area prone to flooding; residents may sign up with local television stations and weather websites for emergency notification of impending flooding conditions; residents are advised to shelter in place and not venture out into flooding conditions; residents should protect pets from floodwaters.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Flooding
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Diane White, Special Projects/Budget Director, will be responsible for implementing this activity.
Implementation Schedule:	Develop messages for this activity in 2004. Implement distribution of these messages in 2005.

<b>Bellaire Mitigation Action 28</b>	<b>Promote the purchase of flood insurance by residents and business owners to protect personal assets.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Diane White, Special Projects/Budget Director, will be responsible for implementing this activity.
Implementation Schedule:	Develop and implement this activity in 2005.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 29</b>	<b>Improve the flood warning system to advise residents of dangerous conditions. Utilize telephone and email to warn residents both in their homes and at their workplace of imminent flooding.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Diane White, Special Projects/Budget Director, will be responsible for implementing this activity.
Implementation Schedule:	Develop and implement this activity in 2005.

<b>Bellaire Mitigation Action 30</b>	<b>Post signs on roadway areas where deep water may be encountered during flooding events.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Identify roadway areas of deep water in 2004. Develop and place signs for this in activity in 2005.

<b>Bellaire Mitigation Action 31</b>	<b>Develop written procedures for warning residents to conserve or boil water during water supply emergencies.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Develop procedures in 2004

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 32</b>	<b>Contact area businesses for their use of hazardous materials and the possibility of those materials coming into contact with floodwaters.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Hazardous Materials, Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	J.J. Bettega, Fire Chief, will be responsible for implementing this activity.
Implementation Schedule:	Contact area businesses in 2004.

<b>Bellaire Mitigation Action 33</b>	<b>Investigate ways the City can help with disposal of mold-damaged materials and possessions.</b>
Category:	Preventative Activities
Hazard(s) Addressed:	Hazardous Materials
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Identify and implement methods in 2004.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 34</b>	<b>Inspect and investigate the existing storm sewer system. Identify areas requiring attention. Develop a multi-year plan with funding to upgrade the system. Include in the plan the following projects: design and construct storm sewer facilities to intercept overland sheet flow; participate in off-site detention projects; design and construct Newcastle Drainage System from Bellaire Blvd to Cypress Ditch; construct the Ferris Street Storm Sewer Improvements; participate in steps necessary to increase the capacity of Cypress Ditch; design and construct extreme event outfalls at Bellaire Blvd and within the Sutthdale Subdivision to Kilmarnock Ditch – partner with other agencies to enlarge Kilmarnock Ditch and improve the outfall to Cypress Ditch; locate and re-route obstructing lines in storm sewers; identify areas suitable for detention facilities and design and construct those facilities</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood (Storm Sewers)
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Capital Improvements Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Initiate and inspect system in 2004. Develop a multi-year upgrading project in 2005.

<b>Bellaire Mitigation Action 35</b>	<b>Continue replacement of sanitary sewer lines.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Hazardous Materials
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Capital Improvements Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Continue design and construction in 2004 and each succeeding year until all sanitary sewer lines requiring attention have been addressed.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 36</b>	<b>Coordinate with surrounding municipalities and agencies that own storm sewers adjacent to Bellaire to consider upgrading their storm sewer systems and providing more detention.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood (Storm Water)
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Capital Improvements Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Contact surrounding municipalities to initiate talks in 2004.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Bellaire Mitigation Action 37</b>	<b>Re-level the City Benchmark System to the new FEMA datum to accurately correlate to the new flood zone maps.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Capital Improvements Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Initiate the re-leveling of the benchmarks in 2004.

<b>Bellaire Mitigation Action 38</b>	<b>Create and ordinance adopting Design Criteria Manual and Detention Criteria for construction in the City</b>
Category:	Structural Projects
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Develop a Design Criteria Manual and Detention Criteria in 2004. Develop and implement an ordinance adopting these in 2005.

<b>Bellaire Mitigation Action 39</b>	<b>Investigate the impact of the new Flood Hazard Recovery Data and how it affects the City and residents.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Operations Budget
Lead Agency/Department Responsible:	Joe Keene, Director of Public Works, will be responsible for implementing this activity.
Implementation Schedule:	Assess the data and prepare a report in 2005.



# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## **Bunker Hill Village**

<b>City of Bunker Hill Village Mitigation Action 1</b>	<b>Increase carrying capacity of Stormwater on the east side of Bunker Hill Road.</b>
Category:	Structural Project, Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$2,215,000
Potential Funding Sources:	Harris County Flood Control District (HCFCD) and City of Bunker Hill Village bonds, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of Bunker Hill Village, HCFCD
Implementation Schedule:	Pending approval by HCFCD

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Deer Park

<b>City of Deer Park Mitigation Action 1</b>	<b>Improve drainage under Highway 225.</b>	
Category:	Structural Projects	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Unknown	
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants	
Lead Agency/Department Responsible:	City of Deer Park	
Implementation Schedule:	November 2006	

<b>City of Deer Park Mitigation Action 2</b>	<b>Build the Patrick Bayou retention pond</b>	
Category:	Structural Project	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$11,983,020.00	
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants,-Disaster Declaration, Hazard Mitigation Grants	
Lead Agency/Department Responsible:	City of Deer Park/Public Works	

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

Implementation Schedule:	Depends on funding
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# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Galena Park

<b>City of Galena Park Mitigation Action 1</b>	<b>Improve shelter-in-place education.</b>
Category:	Public Information and Awareness
Hazard(s) Addressed:	Hurricane, Tornado, Winter Storm, Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000, Shelter information available from FEMA and Red Cross
Potential Funding Sources:	FEMA – Emergency Management Performance Grants, FEMA – All Hazards Emergency Operational Planning, Hazard Mitigation Grant Program, FEMA – Hurricane Local Grant Program
Lead Agency/Department Responsible:	City of Galena Park
Implementation Schedule:	Dependant on funding

<b>City of Galena Park Mitigation Action 2</b>	<b>Reduce Clinton Drive HAZMAT traffic.</b>
Category:	Prevention
Hazard(s) Addressed:	HAZMAT
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – Hazardous Materials Assistance Program, FEMA – Emergency Management Performance Grants
Lead Agency/Department Responsible:	City of Galena Park
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Galena Park Mitigation Action 3</b>	<b>Improve drainage in the 700 block of Clinton Drive.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of Galena Park
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Hedwig Village

<b>City of Hedwig Village Mitigation Action 1</b>	<b>Increase size of storm drainage pipes and regrade W-141 and W-151 drainage ditches.</b>
Category:	Structural Projects, Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of Houston – storm drainage pipes; Harris County Flood Control – drainage ditches
Implementation Schedule:	Dependent on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Hillshire Village

<b>City of Hillshire Village Mitigation Action 1</b>	<b>Increase size of storm drainage pipes and regrade drainage ditches based on findings of city engineering study.</b>
Category:	Structural Projects, Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of Houston – north of Westview and east of Wirt
Implementation Schedule:	Dependent on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Humble

<b>City of Humble Mitigation Action 1</b>	<b>Purchase vehicle mounted portable breathing air system that includes two compressors, storage cylinders and a cascade control system.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Biological, Chemical and Fire
Priority (High, Moderate, Low):	High
Estimated Cost:	\$49,000
Potential Funding Sources:	Domestic Preparedness Program Grant, FEMA – First Responder Counter-Terrorism Training Assistance, FEMA – Hazardous Materials Assistance Program, FEMA – Emergency Management Performance Grants, Department of Justice – State and Local Domestic Preparedness Exercise Support, Department of Justice – State and Local Domestic Preparedness Technical Assistance, FEMA – All Hazards Emergency Operational Planning
Lead Agency/Department Responsible:	Fire Department
Implementation Schedule:	2004-2005

<b>City of Humble Mitigation Action 2</b>	<b>Increase size of drainage arteries (excavating, de-silting or widening) and enlarge existing culverts.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$1,524,000
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	Dependent on funding



# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Hunters Creek Village

<b>City of Hunters Creek Village Mitigation Action 1</b>	<b>Improve stormwater management system to alleviate flooding along Hedwig Road on west boundary of the city, including Country Lane, Camelot, Gawain and Three Corners.</b>
Category:	Structural Projects, Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	Harris County Flood Control, City of Hunters Creek Village
Implementation Schedule:	Dependent on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Jersey Village

<b>Jersey Village Mitigation Action 1</b>	<b>Purchase early warning equipment.</b>
Category:	Emergency Services
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$100,000
Potential Funding Sources:	Federal grant (FEMA – Emergency Management Performance Grants, FEMA – All Hazards Operational Planning)
Lead Agency/Department Responsible:	Jersey Village Emergency Services
Implementation Schedule:	Upon receiving grant

<b>City of Jersey Village Mitigation Action 2</b>	<b>Open bypass on White Oak Bayou.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Very High
Estimated Cost:	\$3,500,000
Potential Funding Sources:	Harris County Flood Control District
Lead Agency/Department Responsible:	Harris County Flood Control District
Implementation Schedule:	2005-2006

<b>City of Jersey Village Mitigation Action 3</b>	<b>Encourage the elevation of existing homes that are prone to repetitive flooding.</b>
Category:	Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$8,000,000
Potential Funding Sources:	Pre-Disaster Mitigation, Hazard Mitigation Grant Program, Flood Mitigation Assistance Program, National Flood Insurance Program (Increased Cost of Compliance), Housing and Urban Development – Disaster Recovery Initiative
Lead Agency/Department Responsible:	Jersey Village Public Works
Implementation Schedule:	Project will be completed as funds become available.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Jersey Village Mitigation Action 4</b>	<b>Provide support for the Harris County Flood Control District's buy-out program for homes with repetitive loss from flooding.</b>
Category:	Prevention, Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000,000
Potential Funding Sources:	Federal grants (FEMA – Hazard Mitigation Grant Program, Pre Disaster Mitigation Program)
Lead Agency/Department Responsible:	Jersey Village Public Works and Harris County Flood Control District
Implementation Schedule:	Project will be completed as funds become available.

<b>City of Jersey Village Mitigation Action 5</b>	<b>Develop and implement public education awareness program in the following areas: Floodplain Management, Natural Hazards, Encourage all citizens to purchase flood insurance, Hazardous Materials, Hurricane Preparedness, Shelter-in-Place.</b>
Category:	Public Education and Awareness
Hazard(s) Addressed:	All
Priority (High, Moderate, Low):	High
Estimated Cost:	\$2,000 annually
Potential Funding Sources:	General revenues/FEMA educational materials
Lead Agency/Department Responsible:	Jersey Village Emergency Services
Implementation Schedule:	2004 with constant updating

<b>City of Jersey Village Mitigation Action 6</b>	<b>Acquire emergency generators (alternate power sources) for primary water/waste water facilities, city hall, and community center.</b>
Category:	Emergency Services, Prevention
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	Very high
Estimated Cost:	\$500,000
Potential Funding Sources:	General revenues, federal grants, bonds
Lead Agency/Department Responsible:	Jersey Village Public Works
Implementation Schedule:	2010

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Jersey Village Mitigation Action 7</b>	<b>Build fire substation south of US290 as this area continues to develop.</b>	
Category:	Emergency Services	
Hazard(s) Addressed:	All hazards	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	\$1,000,000	
Potential Funding Sources:	Bonds	
Lead Agency/Department Responsible:	Jersey Village Emergency Services	
Implementation Schedule:	2010	

<b>City of Jersey Village Mitigation Action 8</b>	<b>To allow JVPD personnel to sustain longer term emergency operations where quartering of personnel is essential to the resident duties of the Emergency Operations Center. The items sought would be cots, dry goods, and the long-term storage of foodstuffs to support 25 officers and civilian employees for three days.</b>	
Category:	Emergency Services	
Hazard(s) Addressed:	All hazards	
Priority (High, Moderate, Low):	Very High	
Estimated Cost:	\$7,500	
Potential Funding Sources:	General revenue and/or grants	
Lead Agency/Department Responsible:	Jersey Village Police Department	
Implementation Schedule:	2004 with incremental review and evaluation	

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Jersey Village Mitigation Action 9</b>	<b>Join the CRS program.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$20,000
Potential Funding Sources:	General revenues
Lead Agency/Department Responsible:	Jersey Village Public Works
Implementation Schedule:	2004 with constant updating

<b>City of Jersey Village Mitigation Action 10</b>	<b>Create flood prevention library for citizens.</b>
Category:	Public Education and Awareness
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Low
Estimated Cost:	\$500 annually
Potential Funding Sources:	FEMA literature
Lead Agency/Department Responsible:	Jersey Village Emergency Services
Implementation Schedule:	2005

<b>City of Jersey Village Mitigation Action 11</b>	<b>Implement Jersey Meadow Golf Course drainage and detention improvements.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Very high
Estimated Cost:	\$850,000
Potential Funding Sources:	General revenues, federal grants, bonds, Harris County Flood Control District
Lead Agency/Department Responsible:	Jersey Village Public Works
Implementation Schedule:	2006

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Jersey Village Mitigation Action 12</b>	<b>The City of Jersey Village needs to develop a master plan that will detail all aspects of storm water drainage. This plan would include an assessment of the current capability and options that would improve the drainage. Detention would be included in the master plan.</b>
Category:	Planning
Hazard Addressed:	Flood
Priority (High, Moderate, Low):	Very high
Estimated Cost:	\$75,000
Potential Funding Sources:	Local general revenues
Lead Agency/Department Responsible:	Jersey Village Public Works
Implementation Schedule:	2005

<b>City of Jersey Village Mitigation Action 13</b>	<b>Implement the above-mentioned plan. Implementation of the plan would be an on-going program with constant reassessment of the needs of the city and impacts of the projects.</b>
Category:	Planning
Hazard Addressed:	Flood
Priority (High, Moderate, Low):	Very high
Estimated Cost:	\$300,000,000
Potential Funding Sources:	Local general revenues, bonds, federal grants
Lead Agency/Department Responsible:	Jersey Village Public Works/Harris County Flood Control District
Implementation Schedule:	2005-2020

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Jersey Village Mitigation Action 14</b>	<b>To support JVPD in response to hazards or circumstances where rough terrain exists, purchase an off-road vehicle to provide individual and allied agency support in transportation of personnel and containment equipment in mitigation hazards.</b>
Category:	Emergency Services
Hazard Addressed:	All hazards
Priority (High, Moderate, Low):	Very high priority
Estimated Cost:	\$35,000
Potential Funding Sources:	General revenues and or grants
Lead Agency/Department Responsible:	Jersey Village Police Department
Implementation Schedule:	2004 with incremental review and evaluation.

<b>City of Jersey Village Mitigation Action 15</b>	<b>Periodically review floodplain and storm water detention regulations.</b>
Category:	Planning
Hazard Addressed:	Flood
Priority (High, Moderate, Low):	Very high
Estimated Cost:	None
Potential Funding Sources:	N/A
Lead Agency/Department Responsible:	Jersey Village Public Works
Implementation Schedule:	2004 with constant updating

<b>City of Jersey Village Mitigation Action 16</b>	<b>Hire additional personnel for the Emergency Services department.</b>
Category:	Emergency Services
Hazard Addressed:	All hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$50,000/year
Potential Funding Sources:	General revenues/grants
Lead Agency/Department Responsible:	Jersey Village Emergency Services
Implementation Schedule:	2005 and all years thereafter

<b>City of Jersey Village Mitigation Action 17</b>	<b>Upgrade communications capability: Intra-departmental for Jersey Village and Inter-agency for county agencies, fire, police and EMS</b>
Category:	Emergency Services
Hazard Addressed:	All hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$70,000
Potential Funding Sources:	Federal grants, general revenues
Lead Agency/Department Responsible:	Jersey Village Emergency Services
Implementation Schedule:	2006

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## La Porte

<b>City of La Porte Mitigation Action 1</b>	<b>Add 2-foot freeboard requirement to Flood Damage Prevention Ordinance.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources
Potential Funding Sources:	None needed, Operating Budget
Lead Agency/Department Responsible:	City of La Porte
Implementation Schedule:	Ongoing

<b>City of La Porte Mitigation Action 2</b>	<b>Change design year used for underground storm sewer design.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources
Potential Funding Sources:	None needed, Operating Budget
Lead Agency/Department Responsible:	City of La Porte
Implementation Schedule:	Ongoing

<b>City of La Porte Mitigation Action 3</b>	<b>Establish policy for the creation of a joint EOC with Shoreacres and Morgan's Point.</b>
Category:	Prevention
Hazard(s) Addressed:	All
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources
Potential Funding Sources:	FEMA - Emergency Operations Center Funding, FEMA – Emergency Management Performance Grant, FEMA – All Hazards Emergency Operational Planning
Lead Agency/Department Responsible:	City of La Porte
Implementation Schedule:	Ongoing



# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of La Porte Mitigation Action 4</b>	<b>Build out F/01 system.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of La Porte
Implementation Schedule:	Dependant on funding

<b>City of La Porte Mitigation Action 5</b>	<b>Conduct study on B/2-00-00 south to city limits.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of La Porte
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of La Porte Mitigation Action 6</b>	<b>Concrete line B/2-00-00 south to city limits.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of La Porte
Implementation Schedule:	Dependant on funding

<b>City of La Porte Mitigation Action 7</b>	<b>Slope pave F216 under SH 146.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of La Porte
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of La Porte Mitigation Action 8</b>	<b>Improve North Street drainage.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of La Porte
Implementation Schedule:	Dependant on funding

<b>City of La Porte Mitigation Action 9</b>	<b>Dig to ultimate capacity the upper reaches of B/06-05, B/06-06, B/06-00.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, US Army Corps of Engineers – Small Flood Control Projects, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of La Porte
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of La Porte Mitigation Action 10</b>	<b>Acquire pipeline data and incorporate into GIS.</b>	
Category:	Prevention	
Hazard(s) Addressed:	Hazardous Materials	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Unknown	
Potential Funding Sources:	FEMA – Hazardous Materials Assistance Program, Pre-Disaster Mitigation Program, Hazard Mitigation Assistance Program, Texas Water Development Board – Texas Natural Resources Information System	
Lead Agency/Department Responsible:	City of La Porte	
Implementation Schedule:	Dependant on funding	

<b>City of La Porte Mitigation Action 11</b>	<b>Implement buyout program for repetitive loss properties.</b>	
Category:	Property Protection, Prevention	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Unknown	
Potential Funding Sources:	Hazard Mitigation Grant Program, Pre-Disaster Mitigation, Flood Mitigation Assistance Program, Community Development Block Grant Program	
Lead Agency/Department Responsible:	City of La Porte	
Implementation Schedule:	Dependant on funding	

<b>City of La Porte Mitigation Action 12</b>	<b>Develop alternate Emergency Operations Center.</b>	
Category:	Emergency Services	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Unknown	
Potential Funding Sources:	FEMA – Emergency Operations Center Funding, FEMA – Emergency Management Performance Grant, FEMA – All Hazards Emergency Operational Planning	
Lead Agency/Department Responsible:	City of La Porte	
Implementation Schedule:	Dependant on funding	

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of La Porte Mitigation Action 13</b>	<b>Continue with the implementation of transportation master plan to facilitate hurricane evacuation.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Hurricane
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – Hurricane Local Grant Program, Pre-Disaster Mitigation Program, Hazard Mitigation Assistance Program, FEMA – Emergency Management Performance Grant
Lead Agency/Department Responsible:	City of La Porte
Implementation Schedule:	Dependant on funding

<b>City of La Porte Mitigation Action 14</b>	<b>Develop traffic diversion plan (develop key traffic center points and acquire equipment to assist in traffic diversion).</b>
Category:	Emergency Services
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – Hazardous Materials Assistance Program, FEMA – Hurricane Local Grant Program, Pre-Disaster Mitigation Program, Hazard Mitigation Assistance Program, FEMA – Emergency Management Performance Grant
Lead Agency/Department Responsible:	City of La Porte
Implementation Schedule:	Dependant on funding

<b>City of La Porte Mitigation Action 15</b>	<b>Acquire and locate stream monitoring instruments in key areas.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Flood, Hurricane
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program, US Army Corps of Engineers – Floodplain Management Services
Lead Agency/Department Responsible:	City of La Porte
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Nassau Bay

<b>City of Nassau Bay Mitigation Action 1</b>	<b>Dredge Lake Nassau.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood, Hurricane
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	US Army Corps of Engineers – Clearing and Snagging Projects, US Army Corps of Engineers – Emergency Streambank and Shoreline Protection, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers – Planning Assistance to States
Lead Agency/Department Responsible:	City of Nassau Bay
Implementation Schedule:	Dependant on funding

<b>City of Nassau Bay Mitigation Action 2</b>	<b>Implement buy-out of flood-prone homes.</b>
Category:	Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Hazard Mitigation Grant Program, Pre-Disaster Mitigation Grant Program, Flood Mitigation Assistance Program, Community Development Block Grant Program
Lead Agency/Department Responsible:	City of Nassau Bay
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Pasadena

<b>City of Pasadena Mitigation Action 1</b>	<b>Enhance annual hurricane workshop.</b>
Category:	Public Information and Awareness
Hazard(s) Addressed:	Hurricane
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000
Potential Funding Sources:	Pre-Disaster Mitigation Program, FEMA – Hurricane Local Grant Program, FEMA - All Hazards Operational Grant, FEMA – Emergency Management Performance Grant
Lead Agency/Department Responsible:	City of Pasadena
Implementation Schedule:	Dependant on funding

<b>City of Pasadena Mitigation Action 2</b>	<b>Provide city employee training for disaster and emergency preparedness.</b>
Category:	Public Information and Awareness
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$25,000
Potential Funding Sources:	Department of Justice – State and Local Domestic Preparedness Exercise Support, Department of Justice – State and Local Domestic Preparedness Training Program, Department of Justice – State and Local Domestic Preparedness Technical Assistance, FEMA – Hurricane Local Grant Program, FEMA - All Hazards Operational Grant, FEMA – Emergency Management Performance Grant, Pre-Disaster Mitigation Program, Hazard Mitigation Assistance Program
Lead Agency/Department Responsible:	City of Pasadena
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Pasadena Mitigation Action 3</b>	<b>Develop comprehensive community all hazard education system.</b>	
Category:	Public Information and Awareness	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$20,000	
Potential Funding Sources:	FEMA – Hurricane Local Grant Program, FEMA - All Hazards Operational Grant, FEMA – Emergency Management Performance Grant, Pre Disaster Mitigation Grant Program, Hazard Mitigation Grant Program, Department of Justice – State and Local Domestic Preparedness Exercise Support, Department of Justice – State and Local Domestic Preparedness Training Program, Department of Justice – State and Local Domestic Preparedness Technical Assistance	
Lead Agency/Department Responsible:	City of Pasadena	
Implementation Schedule:	Dependant on funding	

<b>City of Pasadena Mitigation Action 4</b>	<b>Join the Community Rating System.</b>	
Category:	Prevention	
Hazard(s) Addressed:	Flood, Hurricane	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	None needed, Operating Budget	
Lead Agency/Department Responsible:	City of Pasadena	
Implementation Schedule:	Dependant on funding	

<b>City of Pasadena Mitigation Action 5</b>	<b>Review and enhance windstorm building requirements.</b>	
Category:	Prevention	
Hazard(s) Addressed:	Hurricane, High Winds, Tornado	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$50,000	
Potential Funding Sources:	Pre-Disaster Mitigation, Hazard Mitigation Grant Program	
Lead Agency/Department Responsible:	City of Pasadena	
Implementation Schedule:	Dependant on funding	



# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Pasadena Mitigation Action 6</b>	<b>Improve communication between industry and city staff before, during and after a disaster or incident.</b>
Category:	Public Information and Awareness
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Materials available from FEMA, including a training course offered at the Emergency Management Institute that addresses building partnerships. Pre-Disaster Mitigation Program, Hazard Mitigation Assistance Program, FEMA – Hurricane Local Grant Program, FEMA - All Hazards Operational Grant, FEMA – Emergency Management Performance Grant, Department of Justice – State and Local Domestic Preparedness Exercise Support, Department of Justice – State and Local Domestic Preparedness Training Program, Department of Justice – State and Local Domestic Preparedness Technical Assistance
Lead Agency/Department Responsible:	City of Pasadena
Implementation Schedule:	Dependant on funding

<b>City of Pasadena Mitigation Action 7</b>	<b>Enhance communications with other local jurisdictions before, during and after an incident or disaster.</b>
Category:	Emergency Services, Public Information and Awareness
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Materials available from FEMA, including a training course offered at the Emergency Management Institute that addresses building partnerships. Pre-Disaster Mitigation Program, Hazard Mitigation Assistance Program, FEMA – Hurricane Local Grant Program, FEMA - All Hazards Operational Grant, FEMA – Emergency Management Performance Grant, Department of Justice – State and Local Domestic Preparedness Exercise Support, Department of Justice – State and Local Domestic Preparedness Training Program, Department of Justice – State and Local Domestic Preparedness Technical Assistance
Lead Agency/Department Responsible:	City of Pasadena
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Pasadena Mitigation Action 8</b>	<b>Enhance Emergency Operations Center (communication, audio-visual equipment, training of personnel, equipment).</b>	
Category:	Emergency Services	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Unknown	
Potential Funding Sources:	FEMA – Hurricane Local Grant Program, FEMA - All Hazards Operational Grant, FEMA – Emergency Management Performance Grant, Pre Disaster Mitigation Grant Program, Hazard Mitigation Grant Program, Department of Justice – State and Local Domestic Preparedness Exercise Support, Department of Justice – State and Local Domestic Preparedness Training Program, Department of Justice – State and Local Domestic Preparedness Technical Assistance	
Lead Agency/Department Responsible:	City of Pasadena	
Implementation Schedule:	Dependant on funding	

<b>City of Pasadena Mitigation Action 9</b>	<b>Develop emergency management website.</b>	
Category:	Public Information and Awareness	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Unknown	
Potential Funding Sources:	FEMA – Hurricane Local Grant Program, FEMA - All Hazards Operational Grant, FEMA – Emergency Management Performance Grant, Pre Disaster Mitigation Grant Program, Hazard Mitigation Grant Program	
Lead Agency/Department Responsible:	City of Pasadena	
Implementation Schedule:	Dependant on funding	

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Pasadena Mitigation Action 10</b>	<b>Develop all-hazard indoor/outdoor warning system (sirens, page/e-mail, media).</b>
Category:	Emergency Services
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – Hurricane Local Grant Program, FEMA - All Hazards Operational Grant, FEMA – Emergency Management Performance Grant, Pre Disaster Mitigation Grant Program, Hazard Mitigation Grant Program
Lead Agency/Department Responsible:	City of Pasadena
Implementation Schedule:	Dependant on funding

<b>City of Pasadena Mitigation Action 11</b>	<b>Harden critical city facilities to lessen the impacts of natural and human-caused hazards.</b>
Category:	Property Protection
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program, US Army Corps of Engineers – Planning Assistance to States
Lead Agency/Department Responsible:	City of Pasadena
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>City of Pasadena Mitigation Action 12</b>	<b>Implement Capital Improvement Projects to reduce flood-related impacts.</b>	
Category:	Structural Projects	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Unknown	
Potential Funding Sources:	US Army Corps of Engineers – Clearing and Snagging Projects, US Army Corps of Engineers – Emergency Streambank and Shoreline Protection, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers – Planning Assistance to States, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants	
Lead Agency/Department Responsible:	City of Pasadena	
Implementation Schedule:	Dependant on funding	

<b>City of Pasadena Mitigation Action 13</b>	<b>Buy-out 20 homes in the Brandywood Apartment area.</b>	
Category:	Property Protection	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Unknown	
Potential Funding Sources:	Hazard Mitigation Grant Program, Pre-Disaster Mitigation Grant Program, Flood Mitigation Assistance Program, Community Development Block Grant Program, Housing and Urban Development – Disaster Recovery Initiative	
Lead Agency/Department Responsible:	City of Pasadena	
Implementation Schedule:	Dependant on funding	

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Piney Point

<b>City of Piney Point Mitigation Action 1</b>	<b>Remove restrictions in current drainage system along Piney Point Road and Greenbay Drive.</b>
Category:	Prevention, Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$7,500,000
Potential Funding Sources:	Harris County Flood Control District, City of Piney Point, US Army Corps of Engineers – Clearing and Snagging Projects, US Army Corps of Engineers – Emergency Streambank and Shoreline Protection, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers – Planning Assistance to States, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	Harris County Flood Control District (Soldier's Creek drainage improvements required to be able to remove restrictions)
Implementation Schedule:	Project is in Final Design Phase. Construction to begin early 2004, complete by mid 2005.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Seabrook

Seabrook Mitigation Action 1	Dredge Clear Lake.
Category:	Structural Projects
Hazard(s) Addressed:	Hurricane, Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	US Army Corps of Engineers – Clearing and Snagging Projects, US Army Corps of Engineers – Emergency Streambank and Shoreline Protection, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers – Planning Assistance to States
Lead Agency/Department Responsible:	City of Seabrook
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Southside Place

<b>Southside Place Mitigation Action 1</b>	<b>Construct enhanced/extreme event storm sewer system along Edloe and Auden Streets.</b>
Category:	Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$5,000,000
Potential Funding Sources:	Harris County Flood Control District, City of Southside Place, US Army Corps of Engineers-Floodplain Management Services US Army Corps of Engineers – Planning Assistance to States, Natural Resources Conservation Service - Watershed Protection and Flood Prevention Program, Natural resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Board Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of Southside Place
Implementation Schedule:	2005-2006

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Southside Place Mitigation Action 2</b>	<b>Initiate the Poor Farm and Kilmarick Regional Flood Study</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$11,300,000
Potential Funding Sources:	US Army Corps of Engineers - Clearing and Snagging Projects, US Army Corp of Engineers – Emergency Streambank and Shoreline Protection, US Army Corps of Engineers - Floodplain Management Services. US Army Corps of Engineers - Nonstructural Alternatives to Structural rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers-Planning Assistance to State, Natural Resources Conservation Service-Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service - Watershed Surveys and Planning, Texas Water Development Board - Texas Water Development Fund, Texas Water Development Board - State Participation and Storage Acquisition Program, Texas Water Development Board-Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of Southside Place
Implementation Schedule:	Engineering study launched late 2002



# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Southside Place Mitigation Action 3</b>	<b>Replace culverts on Poor Farm Ditch along Bellaire Boulevard</b>
Category:	Structural Project
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$2,700,000
Potential Funding Sources:	Harris County Flood Control District, US Army Corps of Engineers - Emergency Streambank and Shoreline Protection, US Army Corps of Engineers - Floodplain Management Services, US Army Corps of Engineers - Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers - planning Assistance to States, Natural Resources Conservation Service - Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service - Watershed Surveys and Planning Texas Water Development Board - Texas Water Development Fund. Texas Water Development Board - State Participation and Storage Acquisition Program, Texas Water Development Board - Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of Southside Place
Implementation Schedule:	2005-2006

<b>Southside Place Mitigation Action 4</b>	<b>Educate existing and new residents about floodplain areas and how to deal with flood-related problems and issues.</b>
Category:	Public Information and Awareness, Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources
Potential Funding Sources:	Flood Mitigation Assistance Program (planning), Pre - Disaster Mitigation Program, Hazard Mitigation Grant Program, Texas Water Development Board - Research and Planning Fund Grants
Lead Agency/Department Responsible:	FEMA, City of Southside Place
Implementation Schedule:	Ongoing

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Southside Place Mitigation Action 5</b>	<b>Develop stormwater detention criteria for new construction.</b>	
Category:	Prevention	
Hazard(s) Addressed:	Flood	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$10,000	
Potential Funding Sources:	Flood Mitigation Assistance Program (planning), Pre - Disaster Mitigation Program, Hazard Mitigation Grant Program, Texas Water Development Board - Texas Water Development Fund, Texas Water Development Board - State Participation and Storage Acquisition Program, Texas Water Development Board - Research and Planning Fund Grants	
Lead Agency/Department Responsible:	City of Southside Place	
Implementation Schedule:	2006	

<b>Southside Place Mitigation Action 6</b>	<b>Develop water conservation plan.</b>	
Category:	Public Education and Awareness, Prevention	
Hazard(s) Addressed:	Drought	
Priority (High, Moderate, Low):	Moderate	
Estimated Cost:	\$2,000	
Potential Funding Sources:	Natural Resources Conservation Service -Watershed Surveys and Planning, Texas Water Development Board -Texas Water Development Fund, Texas Water Development Board - State Participation and Storage Acquisition Program, Texas Water Development Board-Research and Planning Fund Grants	
Lead Agency/Department Responsible:	City of Southside Place	
Implementation Schedule:	2005	

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Spring Valley

<b>Spring Valley Mitigation Action 1</b>	<b>Complete Briar Branch Bypass project and construct a detention pond to mitigate flood-related impacts.</b>
Category:	Prevention, Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$4,000,000 (plus land acquisition for detention pond site)
Potential Funding Sources:	Harris County Flood Control District, City of Spring Valley, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Planning Assistance to States, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of Spring Valley and Harris County Flood Control District
Implementation Schedule:	Begin design – 2004, Begin construction - spring 2005

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Taylor Lake Village

<b>Taylor Lake Village Mitigation Action 1</b>	<b>Develop emergency management education and outreach program.</b>	
Category:	Public Information and Awareness	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$5,000	
Potential Funding Sources:	FEMA – Hurricane Local Grant Program, FEMA - All Hazards Operational Grant, FEMA – Emergency Management Performance Grant, Pre Disaster Mitigation Grant Program, Hazard Mitigation Grant Program, Department of Justice – State and Local Domestic Preparedness Exercise Support, Department of Justice – State and Local Domestic Preparedness Training Program, Department of Justice – State and Local Domestic Preparedness Technical Assistance	
Lead Agency/Department Responsible:	Taylor Lake Village	
Implementation Schedule:	Dependant on funding	

<b>Taylor Lake Village Mitigation Action 2</b>	<b>Improve building code.</b>	
Category:	Prevention	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	None needed, Operating budget	
Lead Agency/Department Responsible:	Taylor Lake Village	
Implementation Schedule:	Ongoing	

<b>Taylor Lake Village Mitigation Action 3</b>	<b>Join the Community Rating System.</b>	
Category:	Prevention	
Hazard(s) Addressed:	Flood, Hurricane	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Staff time and resources	
Potential Funding Sources:	NA	
Lead Agency/Department Responsible:	Taylor Lake Village	
Implementation Schedule:	Ongoing	

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Taylor Lake Village Mitigation Action 4</b>	<b>Add stations to warning system.</b>
Category:	Emergency Services
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – Emergency Management Performance Grant, FEMA – All Hazards Emergency Operational Planning
Lead Agency/Department Responsible:	Taylor Lake Village
Implementation Schedule:	Dependant on funding

<b>Taylor Lake Village Mitigation Action 5</b>	<b>Elevate flood-prone homes on Shorewood and Cedar Lane.</b>
Category:	Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Pre-Disaster Mitigation Grant Program, Flood Mitigation Assistance Program, Hazard Mitigation Assistance Program, National Flood Insurance Program (increased cost of compliance)
Lead Agency/Department Responsible:	Taylor Lake Village
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Taylor Lake Village Mitigation Action 6</b>	<b>Improve Willow Hill drainage.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	US Army Corps of Engineers – Clearing and Snagging Projects, US Army Corps of Engineers – Emergency Streambank and Shoreline Protection, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers – Planning Assistance to States, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	Taylor Lake Village
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Taylor Lake Village Mitigation Action 7</b>	<b>Improve Kirby Boulevard drainage.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	US Army Corps of Engineers – Clearing and Snagging Projects, US Army Corps of Engineers – Emergency Streambank and Shoreline Protection, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers – Planning Assistance to States, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	Taylor Lake Village
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Taylor Lake Village Mitigation Action 8</b>	<b>Improve Lake Grove drainage.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	US Army Corps of Engineers – Clearing and Snagging Projects, US Army Corps of Engineers – Emergency Streambank and Shoreline Protection, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers – Planning Assistance to States, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	Taylor Lake Village
Implementation Schedule:	Dependant on funding

<b>Taylor Lake Village Mitigation Action 9</b>	<b>Put ordinances on Taylor Lake Village website.</b>
Category:	Public Information and Awareness
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	NA
Lead Agency/Department Responsible:	Taylor Lake Village
Implementation Schedule:	Ongoing



# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Tomball

<b>City of Tomball Mitigation Action 1</b>	<b>Purchase early warning system.</b>
Category:	Emergency Services
Hazard(s) Addressed:	All
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – Emergency Management Performance Grants
Lead Agency/Department Responsible:	City of Tomball
Implementation Schedule:	Dependant on funding

<b>City of Tomball Mitigation Action 2</b>	<b>Storm sewer improvements</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Texas Water Development Board
Lead Agency/Department Responsible:	Public Works Department
Implementation Schedule:	Dependant on funding

<b>City of Tomball Mitigation Action 3</b>	<b>Construction of Southside Fire Station</b>
Category:	Emergency Services
Hazard(s) Addressed:	All
Priority (High, Moderate, Low):	High
Estimated Cost:	\$850,000
Potential Funding Sources:	Capital projects funds from City budget
Lead Agency/Department Responsible:	Fire Department
Implementation Schedule:	2005

<b>City of Tomball Mitigation Action 4</b>	<b>Addition of a natural gas powered generator at the Central Fire Station</b>
Category:	Emergency Services
Hazard(s) Addressed:	All
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$32,000
Potential Funding Sources:	Capital projects funds from City budget
Lead Agency/Department Responsible:	Fire Department
Implementation Schedule:	November 2004

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Webster

<b>City of Webster Mitigation Action 1</b>	<b>Adopt 2003 International Building Code.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood, High Wind
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources
Potential Funding Sources:	NA
Lead Agency/Department Responsible:	City of Webster Community Development – Building Division
Implementation Schedule:	July 2004

<b>City of Webster Mitigation Action 2</b>	<b>Increase public education in floodplain management.</b>
Category:	Public Education and Awareness
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$200 per year, Materials provided free of charge from FEMA
Potential Funding Sources:	Existing operating budget, Flood Mitigation Assistance Program (Technical Assistance, Planning), FEMA-National Flood Insurance Program, Texas Water Development Board – Research and Planning Fund Grants (Flood Protection Planning Grants), Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program
Lead Agency/Department Responsible:	City of Webster Community Development
Implementation Schedule:	Ongoing project

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## West University Place

<b>West University Place Mitigation Action 1</b>	<b>Replace Police Building and include an Emergency Command Center.</b>
Category:	Emergency Services
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	Very High
Estimated Cost:	\$6,000,000
Potential Funding Sources:	Texas Department of Transportation, FEMA – Emergency Management Performance Grants, FEMA – All Hazards Emergency Operational Planning, Hazard Mitigation Grant Program, FEMA – Hurricane Local Grant Program
Lead Agency/Department Responsible:	City of West University Place Police Department
Implementation Schedule:	2006

<b>West University Place Mitigation Action 2</b>	<b>Identify and mitigate flood-prone areas of the city.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000,000
Potential Funding Sources:	City of West University Place bonds, Flood Mitigation Assistance Program, Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program, Housing and Urban Development- Disaster Recovery Initiative, Harris County Flood Control District, US Army Corps of Engineers – Emergency Streambank and Shoreline Protection, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers – Planning Assistance to States, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place, Harris County Flood Control District
Implementation Schedule:	2006

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>West University Place Mitigation Action 3</b>	<b>Draft a comprehensive drainage ordinance.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$20,000
Potential Funding Sources:	Flood Mitigation Assistance Program (planning), Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2006

<b>West University Place Mitigation Action 4</b>	<b>Send appropriate local officials to FEMA's Emergency Management Institute for continuing education and training.</b>
Category:	Prevention, Public Information and Awareness
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources, EMI courses are available free of charge.
Potential Funding Sources:	City of West University Place
Lead Agency/Department Responsible:	City
Implementation Schedule:	2005

<b>West University Place Mitigation Action 5</b>	<b>Develop preventative maintenance plan for debris removal in storm sewer.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$5,000
Potential Funding Sources:	Flood Mitigation Assistance Program (planning), Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2003

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>West University Place Mitigation Action 6</b>	<b>Develop plan for debris and trash removal following hurricane, flood or tornado event.</b>
Category:	Prevention
Hazard(s) Addressed:	Hurricane, Flood, Tornado
Priority (High, Moderate, Low):	High
Estimated Cost:	\$20,000
Potential Funding Sources:	General revenue, Public Assistance (following federally declared event)
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2004

<b>West University Place Mitigation Action 7</b>	<b>Develop stormwater detention criteria for new construction.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$30,000
Potential Funding Sources:	Flood Mitigation Assistance Program (planning), Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2006

<b>West University Place Mitigation Action 8</b>	<b>Amend Local Flood Damage Prevention Ordinance to require one foot “freeboard”.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$2,000, Staff time and resources
Potential Funding Sources:	General fund
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2004

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>West University Place Mitigation Action 9</b>	<b>Enroll in the Community Rating System.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources
Potential Funding Sources:	General Fund, FEMA
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2005

<b>West University Place Mitigation Action 10</b>	<b>Educate existing and new residents about floodplain areas and how to deal with flood-related problems and issues.</b>
Category:	Public Information and Awareness, Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Staff time and resources
Potential Funding Sources:	Flood Mitigation Assistance Program (planning), Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place, FEMA
Implementation Schedule:	Ongoing

<b>West University Place Mitigation Action 11</b>	<b>Advertise and promote the purchase of flood insurance, especially in flood-prone areas.</b>
Category:	Public Information and Awareness, Property Protection, Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$5,000
Potential Funding Sources:	General fund, Flood Mitigation Assistance Program (planning), Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place, FEMA
Implementation Schedule:	Ongoing

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>West University Place Mitigation Action 12</b>	<b>Develop pages on city web site to inform residents and businesses about flooding and emergency management issues.</b>
Category:	Public Information and Awareness, Property Protection, Prevention
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$1,000
Potential Funding Sources:	General fund, Flood Mitigation Assistance Program (planning), Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2005

<b>West University Place Mitigation Action 13</b>	<b>Acquire 3 high water emergency vehicles.</b>
Category:	Emergency Services, Property Protection, Prevention
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$130,000
Potential Funding Sources:	General fund,
Lead Agency/Department Responsible:	Police Department
Implementation Schedule:	2005

<b>West University Place Mitigation Action 14</b>	<b>Establish a high water Emergency Operations Center or Command Center.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Flood, Hurricane
Priority (High, Moderate, Low):	High
Estimated Cost:	\$500,000
Potential Funding Sources:	General fund, FEMA – Emergency Management Performance Grants, FEMA – All Hazards Emergency Operational Planning, Hazard Mitigation Grant Program, FEMA – Hurricane Local Grant Program
Lead Agency/Department Responsible:	Police Department
Implementation Schedule:	2005

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>West University Place Mitigation Action 15</b>	<b>Establish a simplex radio system with radio amplifiers and a radio tower.</b>
Category:	Emergency Services,
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$100,000
Potential Funding Sources:	General fund, FEMA – Emergency Management Performance Grant, Department of Justice – State and Local Domestic Preparedness Technical Assistance, Department of Justice – State and Local Domestic Preparedness Training Program, FEMA – First Responder Counter-Terrorism Training Assistance
Lead Agency/Department Responsible:	Police Department
Implementation Schedule:	2005

<b>West University Place Mitigation Action 16</b>	<b>Improve Stormwater drainage along Bellaire Boulevard and Kilmarick ditch.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	US Army Corps of Engineers – Clearing and Snagging Projects, US Army Corps of Engineers – Emergency Streambank and Shoreline Protection, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers – Planning Assistance to States, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	West University Place
Implementation Schedule:	Dependant on funding



# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>West University Place Mitigation Action 17</b>	<b>Initiate the Poor Farm and Kilmarick Regional Flood Study.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$11,300,000
Potential Funding Sources:	US Army Corps of Engineers – Clearing and Snagging Projects, US Army Corps of Engineers – Emergency Streambank and Shoreline Protection, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers – Planning Assistance to States, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place Public Works Department
Implementation Schedule:	Engineering study launched September 2002. First public meeting held on May 14, 2003.

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>West University Place Mitigation Action 18</b>	<b>Replace culverts on Poor Farm Ditch along Bellaire Boulevard.</b>
Category:	Structural Project
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$2,700,000
Potential Funding Sources:	Harris County Flood Control District, US Army Corps of Engineers – Emergency Streambank and Shoreline Protection, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers – Planning Assistance to States, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2005-2006

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>West University Place Mitigation Action 19</b>	<b>Construct enhanced storm sewer system along College Avenue.</b>
Category:	Property Protection
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$6,500,000
Potential Funding Sources:	Harris County Flood Control District, US Army Corps of Engineers – Emergency Streambank and Shoreline Protection, US Army Corps of Engineers – Floodplain Management Services, US Army Corps of Engineers – Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works, US Army Corps of Engineers – Planning Assistance to States, Natural Resources Conservation Service – Watershed Protection and Flood Prevention Program, Natural Resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2005-2006

<b>West University Place Mitigation Action 20</b>	<b>Develop wind and flood response plan.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Flood, Hurricane
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	General revenue, FEMA – Hurricane Local Grant Program, Natural Resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2004

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>West University Place Mitigation Action 21</b>	<b>Develop a hazardous materials plan.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Hazardous Materials, Terrorism
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	General revenue, FEMA – Hazardous Materials Grant Program, FEMA – Emergency Management Performance Grants, Department of Justice – State and Local Domestic Preparedness Exercise Support, Department of Justice – State and Local Domestic Preparedness Technical Assistance, Department of Justice – State and Local Domestic Preparedness Training Program, FEMA – First Responder Counter-Terrorism Training Assistance
Lead Agency/Department Responsible:	City of West University Place Fire Department
Implementation Schedule:	2004

<b>West University Place Mitigation Action 22</b>	<b>Develop water conservation plan.</b>
Category:	Public Education and Awareness, Prevention
Hazard(s) Addressed:	Drought
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$2,000
Potential Funding Sources:	Natural Resources Conservation Service – Watershed Surveys and Planning, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2004

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>West University Place Mitigation Action 23</b>	<b>Educate residents and students about water conservation.</b>
Category:	Public Information and Awareness, Prevention
Hazard(s) Addressed:	Drought
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$6,000 annually
Potential Funding Sources:	Enterprise fund, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	Ongoing

<b>West University Place Mitigation Action 24</b>	<b>Educate residents about living in flood-prone areas, including emergency procedures.</b>
Category:	Public Information and Awareness, Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$10,000
Potential Funding Sources:	Enterprise fund, Flood Mitigation Assistance Program, Hazard Mitigation Assistance Program, Pre-Disaster Mitigation, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place Police and Fire Departments
Implementation Schedule:	Ongoing

<b>West University Place Mitigation Action 25</b>	<b>Provide information to residents regarding the installation of backflow valves.</b>
Category:	Public Information and Awareness, Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$1,000
Potential Funding Sources:	General fund, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2004

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>West University Place Mitigation Action 26</b>	<b>Incorporate flood mitigation techniques into subdivision requirements.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	General fund, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2005

<b>West University Place Mitigation Action 27</b>	<b>Consider revision of development standards to require the incorporation of flood hazard mitigation techniques into the zoning and platting process.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	General fund, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2005

<b>West University Place Mitigation Action 28</b>	<b>Amend building codes and standards to include flood mitigation techniques.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Staff time and resources
Potential Funding Sources:	General fund, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2005

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>West University Place Mitigation Action 29</b>	<b>Develop and maintain improved database of flood-related data, including GIS layer identifying building permits, land use, and parcel data.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$5,000
Potential Funding Sources:	General fund, Flood Mitigation Assistance Program, Hazard Mitigation Grant Program, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2005

<b>West University Place Mitigation Action 30</b>	<b>Develop escalating rate structure for heavy water usage.</b>
Category:	Prevention
Hazard(s) Addressed:	Drought
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$40,000
Potential Funding Sources:	General City Revenue
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2003

<b>West University Place Mitigation Action 31</b>	<b>Utilize water wells during peak periods of consumption.</b>
Category:	Prevention
Hazard(s) Addressed:	Drought
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$10,000
Potential Funding Sources:	Enterprise Fund
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2004

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>West University Place Mitigation Action 32</b>	<b>Enhance Geographic Information System (GIS) to include digital floodplain and topographic data.</b>
Category:	Prevention
Hazard(s) Addressed:	Flood, Hurricane
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	\$10,000
Potential Funding Sources:	General Fund, Texas Water Development Board – Texas Natural Resources Information System, FEMA – Flood Hazard Mapping Program, FEMA – Flood Recovery Mapping (post-disaster), FEMA – Hazard Mitigation Technical Assistance Program (post-disaster)
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	2004

<b>West University Place Mitigation Action 33</b>	<b>Continue to require the planting and replacement of trees following new construction and remodeling projects.</b>
Category:	Prevention
Hazard(s) Addressed:	Heat
Priority (High, Moderate, Low):	Low
Estimated Cost:	\$10,000 annually
Potential Funding Sources:	General City Revenue, Texas Water Development Board – Texas Water Development Fund, Texas Water Development Board – State Participation and Storage Acquisition Program, Texas Water Development Board – Research and Planning Fund Grants
Lead Agency/Department Responsible:	City of West University Place
Implementation Schedule:	Ongoing



# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## *Mitigation Actions for Other Potential Stakeholders*

### **Lee College (located in Baytown)**

<b>Lee College (Baytown) Mitigation Action 1</b>	<b>Apply for FEMA's Disaster Resistant Universities funding.</b>
Category:	Programs
Hazard(s) Addressed:	All
Priority (High, Moderate, Low):	High
Estimated Cost:	None other than staff time.
Potential Funding Sources:	FEMA – Disaster Resistant Universities Grant
Lead Agency/Department Responsible:	Lee College
Implementation Schedule:	Ongoing

<b>Lee College (Baytown) Mitigation Action 2</b>	<b>Purchase Elastomeric Coat to protect one of the oldest buildings on campus.</b>
Category:	Property Protection
Hazard(s) Addressed:	Water damage associated with wind blown rain and humidity
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – Predisaster Mitigation (PDM) Program, Hazard Mitigation Grant Program(HMGP);TXDEM - Hurricane Property Protection-Mitigation grant
Lead Agency/Department Responsible:	Lee College
Implementation Schedule:	Dependant on funding

<b>Lee College (Baytown) Mitigation Action 3</b>	<b>Purchase new, remote cameras in all buildings and parking lots. Use them so Security can monitor and report conditions all over campus during an emergency, like a severe storm, from inside the new Security HQ going in the new Student Center.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – Emergency Management Preparedness Grant
Lead Agency/Department Responsible:	Lee College
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Lee College (Baytown) Mitigation Action 4</b>	<b>“Hurricane-proof” windows on Rundell Hall, Social Science, Moler Hall, TV-1, McNulty Haddick Complex, Bonner Hall, Student Center, and old gym.</b>
Category:	Structural Projects
Hazard(s) Addressed:	Hurricane, High winds
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – Predisaster Mitigation (PDM) Program, Hazard Mitigation Grant Program(HMGP);TXDEM - Hurricane Property Protection-Mitigation grant
Lead Agency/Department Responsible:	Lee College
Implementation Schedule:	Dependant on funding

<b>Lee College (Baytown) Mitigation Action 5</b>	<b>Purchase and place wireless emergency telephone stations in each parking lot, well lit and easy to see.</b>
Category:	Emergency Services
Hazard(s) Addressed:	Multiple
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA, State grants
Lead Agency/Department Responsible:	Lee College
Implementation Schedule:	Dependant on funding

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Harris County Department of Education

<b>Harris County Dept. of Education (Center for Safe and Secure Schools) Mitigation Action 1</b>	<b>Share information regarding hazard mitigation techniques (e.g. website, workshops, meetings and conferences).</b>	
Category:	Public Information and Awareness	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	High	
Estimated Cost:	\$10,000	
Potential Funding Sources:	Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, FEMA – Emergency Management Performance Grants, FEMA – Hurricane Local Grant Program	
Lead Agency/Department Responsible:	Center for Safe and Secure Schools	
Implementation Schedule:	Ongoing	

<b>Harris County Dept. of Education (Center for Safe and Secure Schools) Mitigation Action 2</b>	<b>Facilitate Community Emergency Response Teams and first aid/CPR training to school community, including teachers, administrators, parents and students.</b>	
Category:	Public Information and Awareness	
Hazard(s) Addressed:	All Hazards	
Priority (High, Moderate, Low):	High	
Estimated Cost:	Unknown	
Potential Funding Sources:	FEMA – Emergency Management Performance Grants, Department of Justice – State and Local Domestic Preparedness Exercise Support, Department of Justice – State and Local Domestic Preparedness Technical Assistance, Department of Justice – State and Local Domestic Preparedness Training Program, FEMA – First Responder Counter-Terrorism Training Assistance	
Lead Agency/Department Responsible:	Center for Safe and Secure Schools	
Implementation Schedule:	Dependant on funding	

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Dept. of Education (Center for Safe and Secure Schools) Mitigation Action 3</b>	<b>Educate school personnel and education community about shelter-in-place techniques and procedures.</b>
Category:	Public Information and Awareness
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – Emergency Management Performance Grants, Department of Justice – State and Local Domestic Preparedness Exercise Support, Department of Justice – State and Local Domestic Preparedness Technical Assistance, Department of Justice – State and Local Domestic Preparedness Training Program, FEMA – First Responder Counter-Terrorism Training Assistance
Lead Agency/Department Responsible:	Center for Safe and Secure Schools
Implementation Schedule:	Ongoing

<b>Harris County Dept. of Education (Center for Safe and Secure Schools) Mitigation Action 4</b>	<b>Develop public-private partnerships to address disaster-related issues.</b>
Category:	Public Information and Awareness
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	\$10,000, Staff time and resources
Potential Funding Sources:	Materials available from FEMA, including a training course offered at the Emergency Management Institute that addresses building partnerships. Pre-Disaster Mitigation Program
Lead Agency/Department Responsible:	Center for Safe and Secure Schools
Implementation Schedule:	Ongoing

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Dept. of Education (Center for Safe and Secure Schools) Mitigation Action 5</b>	<b>Establish regional communication system.</b>
Category:	Emergency Services
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	FEMA – All-Hazards Emergency Operational Planning, FEMA – Emergency Management Performance Grant
Lead Agency/Department Responsible:	Center for Safe and Secure Schools
Implementation Schedule:	Dependant on funding

<b>Harris County Dept. of Education (Center for Safe and Secure Schools) Mitigation Action 6</b>	<b>Conduct building assessment of schools that serve as public shelters.</b>
Category:	Prevention
Hazard(s) Addressed:	All Hazards
Priority (High, Moderate, Low):	High
Estimated Cost:	Unknown
Potential Funding Sources:	Pre-Disaster Mitigation Program, Hazard Mitigation Assistance Program, FEMA – Hurricane Local Grant Program, Public Assistance (406 mitigation)
Lead Agency/Department Responsible:	Center for Safe and Secure Schools
Implementation Schedule:	Ongoing

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

## Harris County Flood Control District

<b>Harris County Flood Control District Mitigation Action 1</b>	<b>Continue to pursue cost effective flood mitigation projects (buyout, local drainage, stormwater detention projects, and elevation); apply for federal funding, as appropriate. Focus on areas known to be flood-prone/Repetitive Loss areas – reference the current CIP for potential projects</b>
Category:	Pre-plan Mitigation Programs
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$200 million per year
Potential Funding Sources:	HCFCFCD, COE, FEMA (HMGP, FMA, PDM)
Lead Agency/Department Responsible:	HCFCFCD – Operations Division
Implementation Schedule:	On-going

<b>Harris County Flood Control District Mitigation Action 2</b>	<b>Collect “sunny day” data for at-risk buildings (photographs, elevation information/certificates, other data required for application development)</b>
Category:	Pre-plan Mitigation Programs
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$100,000 per year
Potential Funding Sources:	HCFCFCD Funds
Lead Agency/Department Responsible:	HCFCFCD Operations Division
Implementation Schedule:	On-going

<b>Harris County Flood Control District Mitigation Action 3</b>	<b>Develop buyout policies and procedures manual to quickly identify projects and seek funding (from application development through maintenance of purchased/demolished properties)</b>
Category:	Pre-plan Mitigation Programs
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Phase I – Est. \$35,000
Potential Funding Sources:	HCFCFCD Funds
Lead Agency/Department Responsible:	Buyout Team
Implementation Schedule:	24 months for complete effort – Phase I, 3 months

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Flood Control District Mitigation Action 4</b>	<b>Complete a through review and update of FEMA's various NFIP databases for Harris County jurisdictions</b>
Category:	Pre-plan Mitigation Programs
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$75,000
Potential Funding Sources:	HCFCF Funds
Lead Agency/Department Responsible:	Buyout Team
Implementation Schedule:	120 days

<b>Harris County Flood Control District Mitigation Action 5</b>	<b>Periodic informational mailings to SFHA property owners (flood insurance, importance of maintaining drainage, flood safety, easy mitigation measures, permit requirements)</b>
Category:	Encouraging Property Owner Responsibility
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Not determined - On-going effort
Potential Funding Sources:	HCFCF Funds
Lead Agency/Department Responsible:	HCFCF
Implementation Schedule:	On-going

<b>Harris County Flood Control District Mitigation Action 6</b>	<b>Homeowner workshops on retrofitting &amp; low cost measures</b>
Category:	Encouraging Property Owner Responsibility
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Low
Estimated Cost:	Not determined – On-going effort
Potential Funding Sources:	HCFCF Funds
Lead Agency/Department Responsible:	HCFCF
Implementation Schedule:	On-going

<b>Harris County Flood Control District Mitigation Action 7</b>	<b>Sponsor flood-proofing workshops for non-residential property owners (if any are identified as in the SFHA)</b>
Category:	Encouraging Property Owner Responsibility
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Low
Estimated Cost:	Not determined – On-going effort
Potential Funding Sources:	HCFCF Funds
Lead Agency/Department Responsible:	HCFCF
Implementation Schedule:	On-going

# LOCALLY-SPECIFIC MITIGATION ACTIONS

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HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Flood Control District Mitigation Action 8</b>	<b>Facilitate local public school development and delivery of classes on hazards and mitigation measures - school science and social studies curricula</b>
Category:	Encouraging Property Owner Responsibility
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Low
Estimated Cost:	Not determined – On-going effort
Potential Funding Sources:	HCFCF Funds
Lead Agency/Department Responsible:	HCFCF Operations Division
Implementation Schedule:	On-going



# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Flood Control District Mitigation Action 9</b>	<b>Increase flood predictive capability for streams and creeks that affect the District (stream gages)</b>
Category:	Public Safety
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Not determined
Potential Funding Sources:	HCFCF Funds
Lead Agency/Department Responsible:	HCFCF Operations Division
Implementation Schedule:	On-going

<b>Harris County Flood Control District Mitigation Action 10</b>	<b>Encourage jurisdictions throughout the County to enter the CRS program. Assist in the application development, as appropriate. Provide communities with data on effectiveness of Flood Control Projects</b>
Category:	Community Rating System
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	Moderate
Estimated Cost:	Minimal
Potential Funding Sources:	HCFCF Funds
Lead Agency/Department Responsible:	HCFCF Operations Division
Implementation Schedule:	On-going

<b>Harris County Flood Control District Mitigation Action 11</b>	<b>Enhance the District's internal GIS capabilities</b>
Category:	Geographic Information System Technology
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Not determined
Potential Funding Sources:	HCFCF Funds
Lead Agency/Department Responsible:	HCFCF
Implementation Schedule:	On-going

# LOCALLY-SPECIFIC MITIGATION ACTIONS

HARRIS COUNTY  
ALL HAZARD MITIGATION PLAN (DRAFT)

<b>Harris County Flood Control District Mitigation Action 12</b>	<b>HCFCF to complete and distribute new DFIRM maps for Harris County. The new maps are a result of a joint study effort by the Federal Emergency Management Agency and HCFCF. The purpose of this project is to develop technical products that will assist local community in recovery from devastating flooding and provide the community with a greater understanding of flooding and flood risks. HCFCF will continue to support this product through periodic reviews of the computer models and working with the local communities to ensure accuracy. More information may be seen at <a href="http://www.tsarp.org">www.tsarp.org</a></b>
Category:	Codes and Regulations
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	Not determined
Potential Funding Sources:	HCFCF
Lead Agency/Department Responsible:	HCFCF
Implementation Schedule:	On-going

<b>Harris County Flood Control District Mitigation Action 13</b>	<b>Develop and adopt master drainage plans in order for HCFCF to exercise the authority granted to districts under Chapter 49.211 of the Texas Water Code. Changes to Chapter 49.211, made via House Bill 919, require HCFCF review and approval of proposed subdivision drainage plans</b>
Category:	Codes and Regulations
Hazard(s) Addressed:	Flood
Priority (High, Moderate, Low):	High
Estimated Cost:	\$5 million
Potential Funding Sources:	HCFCF Funds
Lead Agency/Department Responsible:	HCFCF Operations Division
Implementation Schedule:	On-going